

The 15th Asian Conference on Arts & Humanities (ACAH2024)

The 2024 IAFOR Spring Conference Series in Tokyo

May 23-27, 2024 | Tokyo, Japan, and Online

OFFICIAL CONFERENCE PROCEEDINGS

ISSN: 2186-229X

Organised by The International Academic Forum (IAFOR) in partnership with the IAFOR Research Centre at the Osaka School of International Public Policy (OSIPP) at Osaka University, Japan, and IAFOR's Global Partners

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The Asian Conference on Arts & Humanities 2024

Official Conference Proceedings

ISSN: 2186-229X



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The International Academic Forum (IAFOR)
Sakae 1-16-26-201
Naka Ward, Nagoya, Aichi
Japan 460-0008
www.iafor.org

Table of Contents

The Role of Translation in Creating Literary Creativity and Cultural Awareness –Epistemological Approach

Labidi Bouabdallah

Abdullah Ahmad

pp. 1 - 10

The Meaningful Pixel and Texture: Exploring Digital Vision and Art Practice Based on Chinese Cosmotechnics

Xingdu Wang

Charlie Gere

Emma Rose

Yuxuan Zhao

pp. 11 - 20

A Study of Communication Needs in Medical Interventions Using AAC for Critical Care Recovery Patients

Yi-Chun Li

Wen-Huei Chou

pp. 21 - 26

Applying CDA and Vladimir Propp's Morphology of the Folktale to Nicholas Sparks' "The Guardian"

Doaa Taher Matrood AL-dihaymawee

Yousif Ali Yousif Salman

pp. 27 - 39

Reflection on Tribal Cultural Experience: Shared Symbiosis of Tacit Knowledge

Pei-ching Tsai

Wen-Huei Chou

Shyh-Huei Hwang

pp. 41 - 55

Harmonising Traditions: An Ethnographic Exploration of Nanyin Pedagogy in Singapore

Lyn Lee

pp. 57 - 69

Exploring the Implementation of Graphic Narratives in Organic Agriculture

Wen-Huei Chou

Yao-Fei Huang

pp. 71 - 80

More Than Just a Corridor: A Case Study of the Spatial Transformation of "The Artistic Gallery" Exhibition

Po-Jo Lai

Shyh-Huei Hwang

Chin-Liang Ho

Mei-Yen Chen

pp. 81 - 93

Cultural Resilience in the Digital Age: Exploring Taiwanese Indigenous Performing Arts

Chia-Li Lin

Li-Shu Lu

pp. 95 - 107

<i>An Analysis of Bela Bartok's Polymodal Chromaticism, Compound Scales, and Expanded Tonality in Chick Corea's Children Song No.10</i> Ganesan Balakrishnan	pp. 109 - 120
<i>Biopower of Artists: Training Logics of Cantonese Opera as Cultural Heritage in Hong Kong</i> Isabella Siu-wai Yun	pp. 121 - 129
<i>Efforts to Improve Learners' Creativity Through the Art Practice of Making Batik Jumputan at Elementary School</i> Yawma Wulida Sapriya	pp. 131 - 140
<i>The Meaning of the Deletion of the Black Victim in "Boys Don't Cry"</i> Miho Morii	pp. 141 - 148
<i>Social Expectations in the Artist's Image Construction and Art Interpretation in Ming and Qing China</i> Yuqing Sun	pp. 149 - 159
<i>The Relevance of Resources Supporting Cultural Identity for Indigenous Children</i> Maria Guadalupe Castaneda	pp. 161 - 172
<i>A Study on Integrating Bloom's Taxonomy With AI Learning Partners to Enhance Self-Directed Learning in Visual Communication Drawing Courses</i> YaYu Huang Jui-che Tu	pp. 173 - 182
<i>Study of the Variation of Words in Thai Language: LINE Stickers</i> Malisa Yotpradit	pp. 183 - 190
<i>Students' Visual Narratives Beyond Adversity</i> Jualim D. Vela Romeleen S. Go-Vela	pp. 191 - 196
<i>Design-Integrated Local Industry Revitalization Strategies: Discuss the "T22 Local Industry Revitalization via Design Project"</i> Shun-Yao Chiang Shyh-Huei Hwang Shu-Yan Wang	pp. 197 - 208
<i>Investigating the Impact of Digital Game-Based Learning on Musical Education</i> Mingke Jiang Chun Qian	pp. 209 - 213

- Religious-Digital Activism in the Time of COVID-19: A Discourse Analysis of the #ChurchInAction*
Willard Enrique R. Macaraan pp. 215 - 223
- Examining Community Development and Environmental Strategies in Yunlin County With Biotope Area Factor (BAF)*
Yi-Pin Lin
Jing-Shoung Hou
Khoon Sean Yeoh
Sung-Chin Chung pp. 225 - 238
- Comparative Analysis of Paranoia in Shakespeare's Macbeth and Miyazaki's Chihiro*
Sanjukta Chakraborty
Varun Gulati
Deepali Sharma pp. 239 - 247
- Uncanny As Missed Lack —Uncanny's Pre-ontological Position as a Premise for Paradoxical Conceptual Art*
Zhi Han
Charlie Gere
James Quin pp. 249 - 257
- Evolution of "Color" Elements in Residential Interior Design*
Ziyuan Yang pp. 259 - 273
- Designing Virtual Restorative Environment With Generative AI: Hardware and Design Considerations*
Kuei-Yuan Chang
Chang-Franw Lee pp. 275 - 285
- Of Miracles, Healings, and Protection: A Study of the Use of Habak in the Tri-City of Cebu*
Dave Tampus Pregoner pp. 287 - 295
- Conceptual Analysis of Personal God Portrayed in Rabindranath Tagore's Song and Poetry*
Sanhita Ghosh pp. 297 - 305
- The Suicidal Reading of Sylvia Plath's Selected Works Under the Theoretical Frame Work of Durkheim's Suicide Theory*
Josit Mariya pp. 307 - 313
- Social, Economic, and Technological Barriers of the Music Industry in Cebu Province*
Antoniette M. Almaden
Alex P. Ocampo
Alexander Franco A. Delantar pp. 315 - 333

- Analysis of the Use of English Article by Mongolian Students:
On the Cases of GMIT Students*
Nomindari Byambasaikhan
Mungunchimeg Amar
Enkhbaatar Tsedenbazar
Zolzaya Choijin pp. 335 - 347
- Power, System, and Social Action: Reflections on Social Theory*
Cinzia Cilento pp. 349 - 357
- “Rainforest Alliance Logo” as a Key Element of Conspiracies in the
German and Slovak Language Space*
Simona Fraščíková pp. 359 - 374
- The Influence of Miniaturization of Urban Family Structure on Residential
Interior Space Layout in China*
Jingwen Yang
Limin Song pp. 375 - 390
- A Hands-On Classroom Activity to Understand Organic Waste Handling
With Conventional Biotechnology: Handout Nata De Orange*
Arifah Novia Arifin
Utami Sri Hastuti
Muri Sapta Sari
Herawati Susilo pp. 391 - 402
- Rohingya Refugees to Indonesia: An International Legal Perspective*
Arsya Amarlaily Arbiyanti pp. 403 - 414
- Empowering Communication and Collaboration Skills of Prospective
Biology Teachers With a Global Insight Through Think Pair Share Based
Lesson Study*
Andi Muhammad Miftah Farid
Anisa Firmandanur Sinta
Herawati Susilo
Ibrohim Ibrohim pp. 415 - 426
- Teaching Ethical Decision-Making Using Frameworks and Interactive
Case Studies*
Chien Ching Lee
Lee Keng Ng
Emily Woo
Yin Kai Ng pp. 427 - 437
- On the Appropriation of Critique of Ideology by the Conspiracy Discourse*
Ján Demčíšák pp. 439 - 451

- Teaching Implementation and Innovation of Design Practice Course With Application of ARCS-V Motivational Model*
Luo ShiChen
Tu Jui-Che pp. 453 - 462
- The Phenomenon of Murder as a Symbolic Archetype in the Albanian Oral Narrative*
Valbona Kalo pp. 463 - 471
- The Development of Animation Video-Based Learning Material by Combining Mobile Applications for Teaching English at the Secondary Level*
Sandhi Fattahul Rohman pp. 473 - 489
- A Case Study on Duolingo Application in Vocabulary Learning Strategies Among EFL Students*
Safhira Auralia Rahman
Ika Lestari Damayanti
Sri Setyarini pp. 491 - 504
- The Decline of Inherited Property and Rise of Working Gentlemen in Bleak House*
Akiko Takei pp. 505 - 513
- Redefining Reality: Art Education and Student Sensibilities at the Digital Inflection Point*
William Hall
Yoko Iwasaki pp. 515 - 528
- Implications of Chinese Medicine's Perspective on "Treating the Undiseased" for the Modern Living Environment*
Shi Zong Lai pp. 529 - 534
- A Study of the Significance of Folk Religious Beliefs in the Ancestral Indoctrination in Penghu, Taiwan*
Che-Chung Yang pp. 535 - 542
- Research on Context Analysis and Interpretation for Paiwan Mouth Flute and Nose Flute Life Craft Culture of Taiwan Indigenous Peoples*
Hsuan-Kai Chen
Wen-Shan Chang pp. 543 - 555
- Introduction, Establishment, and Transformation: An Initial Exploration of the Cultural Shifts and Influence of I-Kuan-Tao in Malaysian Chinese Community*
Myra Lim Pey Huan pp. 557 - 565

- Film Production: An Effort to Create Learning Resources of News Literacy for Indonesian Students*
Andini Nur Bahri
Hasan Sazali
Elfi Yanti Ritonga
Irma Yusriani Simamora
Muhammad Rizky Ananda pp. 567 - 573
- A Study on the Experiential Learning Process Design of the Exploration Box of Traditional Chinese Medicinal Herbs for Augmented Reality*
Zi-Ying Wu
Wen-Shan Chang pp. 575 - 585
- The Preliminary Exploration of the E-lenz Children's English Learning Device Interface Design*
Tzu-Han Lo
Wen-Huei Chou pp. 587 - 596
- Research on Interactive Graffiti Scanning Wall Design Strategies*
Yu-Shan Ding
Wen-Shan Chang pp. 597 - 612
- Design Principles for Integrating Mindfulness Meditation Into Immersive Virtual Reality Experiences*
Nian-Hao Chen
Wen-Shan Chang pp. 613 - 628
- Space Producing and Time: Spatiotemporal Concepts in Linear and Cavalier Perspectives*
Nuo Cheng pp. 629 - 636
- Exploring the Adaptability of Older Adults to Virtual Reality (VR) Through Experiential Teaching Courses*
Cheng-Jia Chuang
Chang-Franw Lee pp. 637 - 646
- Specular Space Expansion: Yayoi Kusama's Infinity Mirror Rooms Through Hermann Schmitz's Atmospheres*
Melissa Gallego Quiroz pp. 647 - 654
- Emotional Fluctuation Expression of Participants in Virtual Interactive Environments Color Composition and Harmony*
Chia-Hung Lin
Wen-Shan Chang pp. 655 - 672
- Exploring the Impact of VR Nostalgic Sandbag Game Experience on the Happiness of the Elderly*
Yu-Chi Chen
Chang-Franw Lee pp. 673 - 681

- Unravelling Social Narratives in Advertisements on India's Sustainable Development Goals*
Manvi Goel
Vinay Sharma pp. 683 - 693
- It Can Exist, but Not in My Backyard! Discussing the Diffusion Effect of Neighbor Nimby From the Relationship Between Community Park Green Space and Ground Floor Entrance and Exit Section*
Shu-Li Huang
Szu-Yu Tzeng pp. 695 - 705
- The 2020 Election in Myanmar: The NLD Supporters and Facebook*
Khin Nway Nway Hlaing pp. 707 - 728
- Eastern Ideology in Hollywood Movies: The Cases of Inception (2010), Interstellar (2014) and Oppenheimer (2023) by Director Christopher Nolan*
Thu Vân Phan pp. 729 - 738
- The Study of the Relation Between Interpretation and Existence: Understanding How Spaces Transform Into Places Through Experience and Perception*
Belinda Carensia
July Hidayat
Kuntara Wiradinata pp. 739 - 751
- A Preliminary Study of Painting as a Balancing Influence on Body and Mind*
Huang Yunching pp. 753 - 762
- Textual Analysis of the Most Popular South Korean Films: Value Practice of National Subjectivity Through Diverse Heroes From Humanistic Perspectives*
Ying-Ying Chen pp. 763 - 773
- Narrative Imagination in Japanese Fantasy and Animation Films: A Dual Melody of the Value of Transcendence and Humanistic Resilience*
Ying-Ying Chen pp. 775 - 784
- Confronting the Ephemeral: The Crystal-Image of the Present Moment in Hong Sang-soo's Recent Films*
Viraporn Kitikunkamjorn pp. 785 - 794
- Utilizing the Aesthetic Properties of Felt Fabric as an Entry for Enriching Students' Skills in the Fashion Accessories Course*
Rehab Ragab Mahmoud Hassaan pp. 795 - 805

*Navigating Well-being and Academic Success: Insights From University
Dormitory Life*

Ngoc-Quang Phan

Bao-Ngoc Dang

The-Diep Nguyen

Trung-Kien Nguyen

Tuan-Dat Pham

Hoang-Nam Tran

pp. 807 - 817

***The Role of Translation in Creating Literary Creativity and Cultural Awareness –
Epistemological Approach***

Labidi Bouabdallah, Mohamed Bin Zayed University for Humanities, United Arab Emirates
Abdullah Ahmad, Mohamed Bin Zayed University for Humanities, United Arab Emirates

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Studies confirm that there is a relationship between scientific fields, known as inter-fields, including the subject of translation, which moves us from one linguistic system to another, whether it is general communicative language, or artistic language in poetry, novels, and literary creativity in general. In addition to the fact that translation is a means of cultural communication between peoples, which contributed to the emergence of an intellectual system that represents the cultural history of humanity. To study this topic -from an epistemological perspective- the paper attempts, with a descriptive and analytical approach, by presenting examples of literary works by translators, to show the role that translation plays in creating literary creativity, and spreading cultural awareness among members of society, through four points:

- 1 - Translation and linguistic communication systems.
- 2 - The limits of translation in the field of literature and culture.
- 3 - Translation and the issue of influence and influence between literary genres.
- 4 - Positive interaction between cultures in light of translation

The results of the paper:

- Translation is not a linguistic act in communicative systems, but rather a mechanism for creating literature, culture and awareness.
- The interaction that exists between literature and culture is the result of translational practices in the field of creativity and literary criticism, as confirmed by the selected models.

Keywords: Translation, Literary Creativity, Culture

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Introduction

Most civilizations experience lean years in the field of cognitive interaction and cultural development until they have embraced the Renaissance and the development of knowledge, where the translation movement has a major role in which translation receives great care from the establishment of organizations, centers and institutes to reach the highest levels of transfer from one language to another, and we see that role is reflected in the great scientific progress that translation has bestowed on the Arabs who learned from other civilizations and interacted with other cultures and added to their Arab heritage episodes of creativity that they introduced to human civilization to be the reason for its progress.

According to the oldest accounts of history, the Arabs of Al-Hira used to contact the Persians and be influenced by what they had, and Yemen had commercial relations with the countries of the ancient world, but this was happening within narrow limits, such as quoting something from martial arts, or telling something from their legends, or taking medicine from them or learning about the sciences of philosophy and parts of wisdom, which proves the existence of relations of the Arabs with other nations and their influence by them (Abd- Alhamid, p. 42). Hence, we can say that translation was a tool to reach the springs of other cultures, and whenever the nation progresses, we find that translation has a prestigious position.

1. Translation and Linguistic Communication Systems; Mechanisms and Challenges

Translation has witnessed a more important matter scientifically and theoretically because of its role in communication and dialogue between different linguistic communities, as it is an enriching factor for the language that protects it from losing privacy between other languages, and this is essentially the goal of the first translation, that cultures interact, dialogue and acquire from each other, in the process of transferring texts from one language to another, and thus, transferring and sharing ideas and experiences, and knowing different cultural and social mentalities, and this is an indispensable human requirement, otherwise, every culture remains confined to itself, has nothing to do with development, dialogue or interaction, and thus we see the importance of translation in enriching cultures by enriching their languages.

It is known that linguistics appeared in the second half of the twentieth century, so one of its most important courses was translation and discussion of its problems, and translation gained additional importance by clarifying its magnitude and introducing new methods in looking at it, through the concepts of French and American linguistic theories, so these concepts were important in solving the problems that hinder translation, and linguistics itself benefited from translation by knowing new proposals.

Due to the fact that translation is a transfer from a source language to a target language, it was necessary to master the communication systems and understand them in order for the translation to do its job in meaning, form, and style, so that there is not a large gap between what is being translated from and what is being translated to, and thus we lose the main goal of translation as a bridge between cultures and methods of acquaintance between different peoples through the language. In this process, there is an access to a new, different world; customs and traditions, a mental structure formed by a different environment; i.e., - in other words - translation is a discovery of that different.

Translation depends primarily on linguistic communication systems that the translator must be familiar with in order to be able to know the structure of the language from which he

translates, and what is required to translate into the target language with its different structure, and if the translator masters it, linguistics has already facilitated his work in generating terms and finding excellent and accurate equivalents for words in the source language. The translator must as well be extensively acquainted with modern linguistic theories that seek to develop the translation process, such as explanatory, pragmatic, semantic, functional, and interpretive theories (Mabsut, p. 228), and all of this will help him in a high-level translation that transcends the existing challenges faced by translators such as wasting the characteristics of the language from which they transmit.

The linguistic term is essential in communication systems, and therefore researchers in linguistics were preoccupied with it and were interested in uniting it as much as possible, and if it could be retained, it was to avoid many obstacles to translation transfer, especially since the term is charged with a special cultural mentality that produced it, and tongue of a people different from the tongue of the language to be transferred to, so the term cannot be translated in isolation from its background, field and communication circle, which makes us reiterate the importance of accuracy in translating the linguistic term. That is, in translating it, he will pay attention to all the elements surrounding the term to ensure that the meaning is conveyed in an excellent manner.

Therefore, the most important thing that the translator faces in linguistic communication systems is the multiplicity of translations of the same term, and to overcome this challenge, he must read the source text accurately, comprehend its methods of expression and vocabulary that constitute its linguistic characteristics in its source, and know how to transfer this to the target language. It is also important to pay attention to the relationship of this term with other terms related to it, and to distinguish between them at the same time to avoid confusion and misunderstanding, and what we are suffering in the Arab scientific community is in some aspects due to this, so it is necessary to "unify translation and transfer efforts between Arab countries", (Ibid) and indeed, we are witnessing this in many academic, critical and scientific terms, such as:

- (العلاماتية / الدلالية / العلامات / علم / السيمياء علم / السيميائية / السيميائية / السيميائية / السيميائية) (Semiotics) all of which have one meaning for translating one French term.
- (اللغة علم / اللغويات / اللغويات / اللغويات) (Linguistics).

2. The Duality of Literature and Culture From the Perspective of Translation

In general, we can say that translation is "the conversion of a linguistic code, that is, a set of spoken or written signs, into another code" (Annani, p. 8), and the existence of general linguistic principles and the recognition of language as a common division among human beings does not mean that linguistic codes differ from one language to another.

The concept of translation has been associated with different peoples in terms of identity, belief, and history, and in this context, Dimitri Gutas says: "Translation is always a creative cultural activity, as it is equal to the development of authentic books." Since translation is an ancient art, it has been associated with creativity and intellectual creation and determines the central systems of other cultures, as it travels between cultures and moves from text to text to convey unknown and paradoxical literature (Bahchwan, p. 12).

The translation means the extent to which the translator is familiar with the imagination of the culture whose texts, history, and symbolic systems he translates, so that the stage of

conscious acculturation is achieved, and this cultural interaction is reflected in human urbanization, and culture is then characterized with creativity and creation.

A mature culture is able to highlight the horizon of its own cultural and cognitive difference without being closed to other cultures, and cultural difference and heterogeneity does not mean that other cultures are not important, but rather it means that difference is a condition for the ability to interact creatively and maturely absorb the achievements of contemporary human thought. Accordingly, translation and culture are closely related to each other.

If culture is the sum of skills, knowledge, and perceptions, then language is an essential part of it, as it encompasses everything that an individual must know, believe, and embody in behavior and action. Culture “must consist of the final outcome of education, which is knowledge” (Nord, p. 52), and it will then be an integrated system firmly established in the general mentality. We can also say that culture is divided into three sections: There is a society’s culture, standards, and governing traditions that apply to the entire society, and there is a culture that is specific to a subgroup within this large society, so it uses certain words with connotations that are consistent with its experiences and view of the world. That is, it creates a kind of its own language, and then the difficulty of others in understanding this particular language and dealing with the new connotation disappears as a result of the communication between this group and other groups. “This happened with regard to religious words such as prayer, Hajj, zakat, ablution, and tayammum (dry ablution)” (Omar, p. 239), or such as the club group or companies..., and then an individual culture that distinguishes the individual against others.

3. Translation Is a Mechanism for Creativity, Effect, and Influence Between Literary Genres

The talking about literary texts means talking about a special linguistic formation that imposes an uneasy task in translation. Literary communication has characteristics that distinguish it from other types of communication between the author and the target audience on the one hand, and the translator and the audience on the other hand. Dr. Muhammad Anani has valuable words in this field. He explained that literary translation is concerned with the translation of poetry, stories, theater, etc., and it is "a form of comparative literature... It requires literary and critical study as well as proficiency in the two languages being translated from and being translated into. There is no such thing as a perfect text in translation (or what was called model translation), because every translated work is in fact the result of the convergence of the author’s creativity and the concept of what is being translated to (Annani, Introduction).

There are aspects that must be addressed in this regard from the “act of literary communication” (Nord, p. 65). If we start with the sender or author, he is a well-known writer in the cultural milieu and literary context, from whom the audience expects a specific text with certain features. Therefore, problems begin in translation when the text is of unknown author in a cultural milieu, and we can cite for this the tales of One Thousand and One Nights in Arabic literature, and Arab or non-Arab folk stories that are transmitted orally, unlike written literary texts that gain cultural specificity by writing and then translating them.

This literary production is necessarily directed to a recipient who possesses special perceptions and expectations acquired through his experience in literary reading and his ability to deal with its metaphors, figurative languages, and spatial and temporal

manipulations. Poetry in particular “is understood by competent readers in the systems of interpretation that allow them to explore the depths of the text and reveal what it abounds in” (Nord, p. 124), and accordingly, the major task of translation in this regard is to skillfully transfer the features that are specific to the culture of the source to the target. Any text containing fiction should be cautioned against being labelled as literary, “while a realistic or social novel cannot be described as literary, because its general horizon parallels the world of the author and the recipients, and therefore “the criterion for classifying a fictional text is not... the extent of its distance and separation from the real world; because it is a tangible matter in all the texts ... Rather, the basic criterion is the way in which the text converges with the real world” (Nord, p. 125), literature is a deviation from the language of daily communication and the adaptation of language in a creative, productive and intensive adaptation that performs special connotations with an inseparable aesthetic, and these connotations determine the purpose of the author or sender of the text.

Perhaps the literature’s avoidance of highlighting the basic, communicative or cognitive meaning gives it a special feature that is not an obstacle to the act of communication except to the extent that it confirms the literature of the text and its specificity. By the basic meaning, we mean the central meaning, which is considered “the main factor of linguistic communication and the real representative of the basic function of language: Understanding and the transfer of ideas” (Omar, p. 52). Talking about the translation of literary texts, the translator must look at the text as a normal text, and then take into account the existence of other characteristics, and scholars believe that these specific characteristics of literature and then the act of literary communication depend on the culture of both the sender and the literary recipient, away from any literary features that we think are fixed (Nord, p. 128). In other words, no stylistic and objective features of the literary text are talked about absolutely, but rather restricted by specific cultural references, and the accumulated experiences of the recipient in his reading of literary texts, and then the act of literary communication will be based on cultural and individual factors as well.

If this is related to the act of literary communication within a society, then literary communication that aims to transcend cultural and linguistic boundaries requires talking about some basic relationships, such as the relationship of the sender's purpose to the text, the sender's purpose to the expectations of the recipients, and the relationship between the text and the recipients (Nord, p. 129).

4. Translation Challenges in the Post-globalization Era

The feature that has characterized our contemporary world is the information feature, or what we call globalization, which has revolutionized human communication with the latest technological development and artificial intelligence. Since sciences are intertwined, translation will undoubtedly bring about a similar revolution in this era of communication and its causes and concerns, by penetrating linguistic barriers, facilitating means of communication at the local and international levels, enabling individuals with different languages to communicate, and giving local companies the ability to open up to new markets and companies, which opens the door for growth and progress. So, how can companies communicate with foreign customers and companies in the world without the translation process? This is impossible as translation is necessary to complete negotiations, hold meetings and establish projects in cooperation with foreign individuals of a different language and culture.

However, the most important challenges that have emerged in this regard are:

- 1- Reducing the status that translators used to have, as these automated technologies may facilitate the dispensation of translators and their traditional translations, which has made their role almost limited to linguistic editing and proofreading, in addition to some translations that the machine is not capable of performing, but rather require human expertise.
- 2- Likewise, no one can deny the obstacles and weaknesses surrounding machine translation, despite all this remarkable scientific progress. Let's return to the first point and acknowledge that many of the subtle elements and differences can only be fulfilled by human translators who are able with their minds to understand the cultural backgrounds and relationships between terms, and in the end: The accuracy of the translation and its approximation to the target language and its culture.

Thus, translators are indispensable in this process, and the machine does not replace rational humans, but there is no doubt that they will benefit from translation techniques as they develop in providing translations that raise them to the highest levels of accuracy and skill in various literary, critical, medical and social fields....

If this is the case, it is necessary to have a simple discussion about the problems facing the translator:

The main problem in the translation process is to find a word in one language identical to the meaning of another word in another language, and because it is impossible to match two languages in classification, cultural and social backgrounds, uses of figurative language and metaphors, caution should be exercised against problems that may distort the translation or reduce its accuracy, and this theme will be for applied models after theorizing in the previous two themes.

Accordingly, we begin with the first problem, which is the discrepancy in the semantic field of two words that seem to be synonymous. The meaning of one word may be broad in one language but narrow in another, and an example of this is the semantic field of colors. Each language has its own style of division, and we find more than one word for one color, but it expresses different degrees, for example, the Arabs express the degrees of red in purple for the intense ones, and with amber (بهرمان bahraman) for the less red ones, and they say (مفدّم mufaddam) for the one that is saturated with redness, the mudarag المُنْرَج for the one less than it, muwarad المورّد (color of a rose) for the one after mudarag... (Omar, p. 252). We can also look at the word (طويل taweel), for example, which is equivalent in the English language to tall/long, but each of these has its own use in its language, so the translator into Arabic should not be confused in their use in any place that is equivalent to (طويل taweel), and such as: busy / engaged, which corresponds to (مَشْغُول mashgool) in Arabic, but each of these has its own use in its language, so we do not say “busy”, about the phone line. (Omar, 1982) On the other hand, a word may be used in more than one meaning in one language, while it has one meaning in the other language. For example, the word (library) in English has more than one equivalent, each of which is used in a certain situation. Therefore, a bookseller should not put up a sign written on it in Arabic (Maktaba) and next to it the word “library” in English, because the latter alone means in its language the public library that any member of the public can go to read, while the bookstore is equivalent to a book shop or book store, and your private library is book – collection (Omar, p. 253).

As for the second problem, it is represented by two words that seem to be synonymous, but their contextual distribution allocates them to a meaning that they are not used in any other, so the translator must be aware that poor comes with special connotations in one context and not another, so it is used:

- poor man to express a needy.
- poor boy to express deserving of pity.
- poor box to express the fund of the needy.
- poor opinion to express a simple or trivial idea.
- poor health to express illness or emaciation.

In Arabic, the translator should be alert and know how to use the equivalent. In a case of pity, we will say: Poor boy, and we do not say his health is bad, but rather we say he is ill or not well... (Omar, p. 256). In another example, in the Arabic language, we use the word (جدول) in more than one meaning; as the meaning varies according to the context in which the word appears, so the translator should not transfer it to English depending on a general meaning, or a single meaning that he thinks has conveyed the meaning in English, there is jadwal 'almā جدول الماء; that is, water stream, there is a multiplication table (الضرب جدول), there is a schedule of appointments and lectures (Khalil, p. 145). If we deal with the word (Sāhib صاحب), we may find it in different contexts, such as: sāhib 'al-bayt صاحب البيت (the owner of the house); i.e., its owner and sāhib haq حق, i.e., the beneficiary of a right, and sāhib nasīb 'al-'asad نصيب الأسد, i.e., who has the large share, and sāhibī صاحبي; is my friend. Hassan, p. 234) Therefore, the translator must know precisely the word that conveys the required meaning in English as the target language in this case, and words such as ('azīm عظيم 'great'), (kabīr كبير 'large'), and (dakhm ضخ 'huge') in Arabic may be used with one meaning, if we describe the size of a whale, for example, but it would not be like that if we said: This is kabīr 'al-'aila العائلة كبير 'the head of the family', for it is not appropriate to say azeem 'al-'ā'ila العائلة عظيم 'the great of the family' or dakhm 'al-'aila العائلة ضخمة 'the huge of the family'.

In the example of cut, which in English generally denotes cutting, whether of cheese, a flower, or hair..., but in Arabic we have broader uses to indicate this meaning in specific ways, so we say: jaraha جرح 'He injured' his finger, qatafa قطف 'picked' the flower, Qatta'a قَطَعَ 'cut' the cheese, Qatta'a قَطَعَ 'interrupt his conversation, and qassa قَصَّ 'cut' his hair, and we do not say about all of them (Qatta'a قَطَعَ 'cut') (Omar, p. 256).

This speech leads us to the context of semantic fields that have received a great deal of attention in the studies of modern linguistics. Words have major semantic fields in which they are organized, that is, there must be semantic relationships that combine a number of words. The word (plant) is associated with greenery, and the word (tree) as well, and there is a general field that combines words indicating love, kinship, friendship and words indicating colors, and the semantic value of the word according to this theory is not determined in itself, but is determined in relation to its semantic position within a specific semantic domain" (Khalil, p. 144). The ancient Arabs paid attention to this idea and composed treatises on topics and groups of meaning for specific words. There are treatises by Al-Asma'i on camels, horses, sheep, and plants..., and treatises by Abu Hatim Al-Sijistani on locusts, bees, honey, and the well. Some dictionaries were also arranged according to their subjects, such as Al-Mukhaṣṣaṣ of Ibn Sidah.

We can talk about a third problem, as languages are not similar in their figurative expressions and metaphors, which means that a literal translation may break the meaning and take it away from what is intended. In English, they express the stage of old age by saying “evening of life,” and it is not correct for the translator into Arabic to convey it in the form (masā’ al’omr (العمر مساء), as in Arabic culture there is a common metaphorical equivalent: Kharīf al’omr (العمر خريف). (Omar, p. 256) The English express the joyful day by saying, “a red letter day” so it is not correct to translate this phrase literally. This also applies to semantic units composed of two or more words. These words take on a new meaning different from what they had in their singular case. If we say: (janāh al-muslimīn (الأمس لمين جناح), it denotes the mail among the Arabs in ancient times, because of the swift spread of news through it and the speed of its dissemination (Al-Thaalibi, p. 168). The translator should come up with what conveys this connotation and not the literal translation (of janāh (للجناح) and (al-muslimīn (الأمس لمين), and our saying (Zaynab's fingers أصابع زينب) to indicate the sweets that were known from Baghdad and then spread in the countries, (Al-Thaalibi, p. 320) and (the chemistry of joy (الفرح كيميائي) in referring to wine. (Al-Thaalibi, p. 320) All of this requires the translator to increase knowledge of the culture of the source text (translated from it), and the target culture (what is being translated to), as it calls for a basic attention to the social aspect of the meaning, as connotation is based on the linguistic context first, from the functional and lexical meaning, and is based on the semantic sense, i.e., the social context and circumstances of the article, (Hassan, p. 337) and the structures, figurative languages and metaphors emanate from certain acquired cultural and social experiences.

Lexical gaps appear in one language when searching for an equivalent for a specific detail in another language, despite the fact that languages may agree on a general classification of objects and share general human concepts that are not exclusive to one language without another, such as the tangible and the abstract, the living and the inanimate, and relationships and things Size, color, shape and gender ..., the classifications and partial details are still a source of confusion for translators, “All languages use the pronunciation system similarly, but they differ in the process of selecting the sounds they employ..., so they combine words and syllables of sounds, but they differ in their selection” (Omar, p. 258), and to represent that we look at the words cold and heat in English and their equivalents in Arabic:

- Freezing/ icy/ frigid = التجمد
- Chilly/ cool/ cold = البرودة
- Fresh/ mild/ moderate = الاعتدال
- Warm/ brisk/ hot = الحرارة
- Sweltering/ scorching/ burning/ boiling = الشديدة الحرارة

Ahmed Mukhtar Omar points out after citing these examples that translators and binary dictionaries were really confused in determining the precise meaning of these words and the degree of connotation of heat and cold and how to transfer this to Arabic in addition to its general meaning. They said about frigid القارس (the frigid and lukewarm) and about cool البارد (the lukewarm), and such happened in the field of colors, especially the secondary ones. With regard to the primary or basic ones, it was found that some languages only distinguish between luminous colors, the white group/the black group, and some languages only distinguish between four colors: red, green, yellow, and blue. As for the secondary colors, the problem is greater due to their huge number that varies according to different languages. This called for setting conditions in the dictionaries of colors in order to reduce the effects of the difference in partial classifications, such as the requirement that the color be accompanied by an illustrative model indicating it, and the distribution of colors in general areas and then the treatment of each group related to the general color in one place.

As we may see the lexical gap due to the difference in the circumstance and the absence of the thing expressed in the other language, we do not find sixty names in English for the sword (السيف), for example, as in the Arabic language, and there may be a word that expresses the death of a person in English, but there is nothing like it that expresses the death of the plant ... (Omar, p. 264).

Thus, these are some of the problems facing the translator in transferring the source text to the target language, with the cultural content of this language and the surrounding social status, so he must be aware of all this to distance his work from literal translation, which may cause a deficiency instead of being a completion and enrichment of the target culture.

Conclusion

Translation is an art as old as cultures, and every civilization that has achieved a great level or seeks to achieve it will realize the importance of translation as an intellectual activity and human creativity, as there is no room for cultural development and progress except by engaging with the other and learning about his heritage, as this has an essential role in civilization and urbanization and bringing civilization out of the stage of dormancy to the stage of critical movement in various knowledge.

Hence, we can say that translation has contributed to strengthening cultural identity and awareness of its specificity, and enabling communication and overcoming barriers between other cultures. It is not only a translation of language, but rather a transfer of language, culture, and knowledge, thus producing a new creation of the original literary text.

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***The Meaningful Pixel and Texture:
Exploring Digital Vision and Art Practice Based on Chinese Cosmotechnics***

Xingdu Wang, Lancaster University, United Kingdom
Charlie Gere, Lancaster University, United Kingdom
Emma Rose, Lancaster University, United Kingdom
Yuxuan Zhao, Lancaster University, United Kingdom

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The study introduces a fresh perspective on the digital realm by examining the Chinese concept of *xiàng* (images), elucidating how it can build an understanding of pixels and textures on screens as digital trigrams. This concept offers an outlook on the intersection of digital technology and the natural world, thereby contributing to discussions about the harmonious relationship between humans and technology. *Xiàng*, the basement of Chinese visual art, is rooted in ancient Chinese philosophy and connected to the eight trigrams. The discussion of connects art, philosophy, and technology. This paper connects the meaning of *xiàng* with the truth appearing philosophically through the analysis of the concepts of phenomenon and noumenon and the unique Chinese way of observing. Hereafter, the historical interconnection between ancient painting and writing in China emphasizes their relationship between technical craftsmanship and artistic expression. In digital, the paper blurs the traditional boundaries between images and text on digital screens in theory. Lastly, this study identified an ensemble concept relating to pixels and textures in computer vision, drawing inspiration from AI image recognition in Chinese paintings. In art practice, by presenting a fluid visual experience in the form of pixels, which mimics the flow of lines in traditional calligraphy and painting, it is hoped that the viewer will be brought back to the process of the truth appearing as defined by the *xiàng*.

Keywords: Chinese Cosmotechnics, Computer Vision, Contemporary Neo-Confucianism, Texture and Pixel, Xiang

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Introduction

Chinese philosopher Yuk Hui has proposed the concept of Cosmotechnics, which argues that different cultures can achieve cosmic and ethical unity through various technological activities, be they crafts or artistic creations, rethinking the issue of technology to cope with crises such as global warming, energy shortages, and the decline of biodiversity in the Anthropocene. This study follows the above concepts and builds a theoretical and artistic practice that responds to the concept of Cosmotechnics based on the Chinese theory of *xiàng*. The original meaning of *xiàng* is the elephant, which symbolised the communication between heaven and earth in ancient times, and later, it was derived into specific meanings such as divination, communication and imitation. Words related to *xiàng* include abstraction, quadrant, symbol, and image. This study needs to explore *xiàng*'s meaning as truth appearing and unify the images that serve as the basis of Chinese visual art and the trigrams associated with divination techniques.

Xiàng and the Truth's Appearing

Dào qì (way and objects) are a pair of important research categories in ancient China, equivalent to the relationship between abstract reasoning and concrete things, between spirit and matter, as stated in The Book of Changes, '*What is above form is called dào (way), and what is under form is called qì (an object)*'. According to Chinese scholar Pang Pu (1928-2015), there is an intermediate position between the *dào* and the *qì*: the position of the *xiàng*. 'Heaven hangs down an image to see good and bad fortune, and the saints look at it'. Heaven always foretells some signs so that those with high intelligence can discover the rules and principles through insight, where *xiàng* can be interpreted as the appearance of the way of heaven. All things in the world have its *xiàng*, '*on its xiàng for the construction of implements*', that is to say, to look at the *xiàng* of all things and to make concrete and shapely the construction of implements'. Therefore, according to Pang Pu, the complete expression of '*dào qì*' should be '*dào, xiàng, qì*'. *Xiàng* is the intermediary form in which humans take the initiative to relate to *dào* and *qì* (pu, 1995).

This study was established with the critique of Kant's concepts of phenomena and noumena by Mou Zongsan (1909-1995). It continues to explore the topic of "appearing" based on the "Moral Metaphysics". If *dào* is regarded as noumena and phenomena as *qì*, then *xiàng* is the process of 'appearing'. As a representative personage in contemporary Neo-Confucianism, Mou Zongsan, along with his teacher Xiong Shili (1885-1968) and other modern Chinese thinkers, confronted the philosophical and scientific issues of the Western world at that time. They claim that the Western tradition of mechanistic, objectifying, and substantializing metaphysics lacked a sense and emotion of life. Therefore, they attempted to draw from the traditional Confucian concept of *rén* (benevolence) and Wang Yangming's concept of *liángzhī* (conscience), aiming to construct a moral metaphysics centred on the *běnxīn* (original mind). Unlike Kant's Metaphysics of Morals, which highlights a metaphysical interpretation of the concept of morality, contemporary Neo-Confucian Moral Metaphysics emphasizes that moral practice based on the original mind can access the ultimate source of the universe (Mou, 2020).

Kant delimits the boundaries of what one can acquire about an object over the manifold of appearances that the thing in itself acquires by stimulating the senses. The thing in itself is not accessible to sensuous intuition but is only capable of being grasped based on intellectual intuition, which is not possessed by human beings. According to Mou Zongsan, based on the

perspective of traditional Chinese thought, it seems that human beings have always possessed intellectual intuition and that things in themselves are knowable. Conversely, Kant's shaping of the thing in itself from subjective consciousness makes the thing-in-itself not acquire its valuable implications. However, it becomes only a concept of limitation, like the number '0', which is causal logic without actual content. This meaningless limitation makes the concept of phenomena equally unstable. Thus, he initiates a transformation of the Kantian concept of the thing-in-itself and noumena.

Firstly, within Kant's framework, noumena and thing in itself are not synonymous. Thing in itself refers to the unknowable transcendent object that is opposed to phenomena, while noumena refers to the intellectual realm opposed to phenomena. In addition to things in themselves or thing in itself, noumena also encompasses three transcendent concepts: freedom of the will, the immortality of the soul, and the existence of God. Mou Zongsan understands noumena as the only absolute infinite essence in the Chinese sense of the free infinite mind or the original mind, the moral metaphysical entity. The thing in itself is then subsumed into this infinite mind and transformed into a valued, meaningful thing in itself that can be known by intellectual intuition.

In contrast, 'intellectual intuition' is understood as *zhī tǐ míng jué* (awareness of the inherent luminosity of the mind) on the basis of Wang Yangming, which is a comprehensive way of understanding the relationship between the self and others (or the universe) from the perspective of the moral subject rather than the cognitive subject. In this framework, Mou subsumes technology under the category of phenomena, where science and technology generated from the cognitive subject may not be able to explain the explanations provided by intellectual intuition generated from the moral subject. From the cognitive subject, the world is known analytically and deductively, whereas, from the moral subject, the interrelationships of things need to be examined through integrative reasoning. This intuition unites phenomena with ontology. In this relation, the object is not objectified to meet the subject in the phenomenal world, but the co-manifestation and existence of the object and the I obtained through "intellectual intuition" in the moral metaphysical ontology of the "original mind," which is the mutual corroboration of the subject and the object. In this way, the meaning of appearing is far from Kant's transcendental objects of objectification, it enters into the field of the study of the *xiàng* in Chinese thought. A way of 'appearing' that is different from Kant's epistemological path also serves as the background and core of this study of the problem of the truth appearing.

Writing and Painting Are Derived From the *Xiàng*

Writing and painting share the same origin, also a traditional topic in Chinese painting, which is expressed as a close relationship between Chinese painting and calligraphy with a mutually reinforcing development process. The exact origin of writing and painting is still a matter of debate, as there is no accurate historical fact about the origin of writing and painting. There is a common misconception that Chinese characters are hieroglyphics, implying that they originally evolved from the abstraction of images. While it's true that there is significant archaeological evidence linking images to writing, such as murals and primitive images, it's not accurate to assume that the simplified abstract evolution of Egyptian hieroglyphics "from pictures to letters" can be applied to the development of Chinese characters. Chinese scholar Gao Jianping interprets the phrase "writing and painting share the same origin" to mean that the act of creating visual images and the use of vision to convey information are both the

origin of writing as well as the origin of painting. Ancient painters and historians hoped to use this discussion to link painting to the origins of human civilization (Gao, 2018).

The earliest discussion on the origin of writing and imagery comes from Xu Shen (c. 58 ~ c. 147) in his "*Shuowen Jiezi*". He traces the origin of character creation back to the ancient practice of observing natural phenomena and divination activities such as drawing hexagrams, recording events with knotted cords, and observing animal footprints by Cangjie. The process of writing began with the observation of *wùxiàng* (appearance of things) of things to obtain pictographic symbols, which gradually evolved into the formation of characters. Later, it transitioned to the process of recording on bamboo and silk. According to research by Shuowen Jiezi, Writing and painting originate from different ways of recording the *wùxiàng* of manifested things. Therefore, it can be said that both the written word and the painted image in 'Writing and painting share the same origin' originate from the manifestation of the nature of all things, and this manifestation and presentation activity is also known as *xiàng* (He, 2016). Likewise, the *xiàng* is the technical activity of storing the truth of all things in the universe in definite symbols, and both calligraphy and painting originate from this activity. The images of painting and the words of calligraphy created for this purpose not only express the beauty of their temporal and spatial settings, order, position, rhythm, and rhyme but also enable the truth of the world and the original mind of man to emerge from their respective states of darkness and obscurity. What Writing and painting share the same origin seeks to answer is the emotion of life between man and nature, as well as man and man.

Disappearance of Boundaries Between Text and Images in the Digital Age

In the digital era, the relationship between writing and painting has changed significantly. Friedrich Kittler (1943 - 2011) argues that computer images are the result of computer graphics, which is a software program that provides both readability and visual effects when run on appropriate hardware (Kittler, 2001). Digital images, on the other hand, are simply optical perceptions that are formed by our eyes on a screen. Regardless of whether it's text, images, graphics, or sound files presented on a screen, everything in the digital era originates from a set of mathematical instructions written in computer code. These instructions consist of strings of 0s and 1s and two different voltages during electronic pulse transmission. Digital media is essentially an intermediate code generated by discrete units, which break down everything into consistent and interchangeable bits or bytes. Computers represent objects using binary code, and all codes within the system consist of strings of 1s and 0s. Therefore, from a material perspective, there is no difference in appearance between image and text, since all binary codes are "reduced" to two different voltages in circuits or electronic pulse transmission. As a result, this electronic process cannot be directly seen or felt, making the system "virtual" for the media it produces, such as the internet (Dewdney & Ride, 2006). Kittler argues that images were authentic and had the qualities of phenomenological artifacts, but now they are virtual (Fictional); they are just information. Kittler describes this process as a general digitization of information and information channels, erasing differences between individual media (Kittler, 2006). Images, sounds, and texts become interface effects. In other words, the essential difference between image and text in the digital has been eliminated; it is not three or two dimensions, but 0-dimensional information and code, the virtual and the real intersecting on the terminal screen.

Take the historical development process of Chinese character input in the computer age. The complexity of Chinese characters has become an obstacle for the Chinese language to face the digital world. The primary character set for inputting Chinese characters is 6,763, while

the standard English keyboard is 101, and the main problem was how to convert Chinese characters into usable and displayable characters. We will examine only some of the early computer display technologies here. There were many options for displaying Chinese characters, such as the planar display method and the cathode ray tube display method. Depending on the scanning method, the tube display method is mainly divided into vector and raster. The most common is the raster tube display method. The raster principle is to represent Chinese characters as a dot matrix and then modulate the brightness of the scanning electron beam according to the dot matrix to produce glyphs. Generally speaking, the dot matrix of Chinese characters needs to be 15*16, and a number less than this will not be able to represent the complex strokes. In terms of hardware, the Chinese character system technology either chooses a new type of computer to develop or modifies the display mechanism on the basis of a Western computer by adding a Chinese character library, a Chinese character discriminating circuit, and a half-word processing circuit, so as to make it capable of displaying both single-byte Western characters and double-byte Chinese characters, while the graphic form of the display mechanism remains unchanged. Without changing the basic structure of the computer, Chinese characters in software are stored as images and displayed on the screen as sub-graphics in a text-based screen format. Chinese character input emphasizes the exploration of the harmony between Chinese culture and technology represented by Chinese characters, relying on the existing technology of early monitors and display methods to input Chinese characters in graphical form and to store and display them. We have briefly traced the ways in which Chinese characters were inputted in the mechanical and digital eras, where the essential distinction between text and graphics was dissolved on the monitor, and they were given technological life. In *On the Existence of Digital Objects*, it is mentioned that digital objects are computational objects that make up a new type of industrial product - web images and texts (Hui, 2016). They exist both on the screen (with which we can interact) and at the back end or inside of electronic programs. The problem is that this image and text are shown to represent not just their representations but also the entire operating system and the choices of the viewer. If we bring the internet and big data into our thinking, the text image is not just passive but in the actual interaction between man and the world, software, and hardware.

The *Soft image* is Ingrid Hoelzl and Rémi Marie's new vision of the digital image. The digital image is the moment when the network accesses the image. While the screen mediates the subject-object interaction, the digital image is the in-the-moment confirmation of code projection and visual interaction on the screen. New media has changed the perception of images because it has turned the viewer into an active user. The new media image is something that the user actively enters. It is interactive. As a result of interactivity, the relationship between subject and object is shaken; images are no longer mere reproductions, and images no longer exist as physical entities. This operationalization of the soft image implies an understanding of the world as a database. The image is a continuous realization of networked data. The inclusion of the network makes the image no longer just a passive and fixed representation but a real-time data refresh. Images are transmitted and generated by unseen information and signals; images are self-contained operational procedures (Ingrid&Remi, 2015).

The image on the screen has a certain fluidity and relative stillness in time, a condensation of disembodied information. Anything we frame on the screen can be called an image. The subject somehow notices and imagines the signals; the image is a summons. In the process of loading and updating, we wait for confirmation from the next visitor, and the code is evoked and resides on the display through technical means. In other words, digital images are not just

mappings of physical objects but where code and consciousness converge in digital objects. Furthermore, When the network is augmented, the city is configured as a real-time database, and all human activities are digitized; digital images become semantics on terminals dedicated to vision, connecting the virtual and real worlds.

The process of digital image generation is the process of convergence and visualisation of different codes from multiple environments, in a similar way to the way everything condenses in Zhang Zai's (1020 - 1077) *qi* (air) theory, the image is shaped and adapted by the stimulation of codes and waves and by the subject's expectations. The digital images that appear before our eyes are code mappings, the unfolding of a certain consciousness thousands of kilometers away. For individual, there is no specific difference between text and image, writing, and drawing on the screen, but a new digital world is incorporated into the traditional world and that human beings coexist with the digital objects in this technological cosmic.

Chinese Painting and Calligraphy Under Computer Vision

The previous section roughly summarised text and images as information and code, and the imaging of interfaces is understood as the visualization of code, and we participate holistically and synergistically in the operation of the digital world. Yuk Hui draws on Gilbert Simondon's associated milieu to illustrate how his digital object exists. It essentially discusses the aggregation and formation of digital objects under the continuous participation of individuals and the intertwined network of relationships between computer-operated software and hardware. Let us borrow feature extraction from computer vision as a case study to continue this discussion and further extend the understanding of text and painting in the digital age. Computer vision is a field of artificial intelligence (AI) that enables computers and systems to derive meaningful information from images, videos, and other visual inputs and to act on or provide recommendations based on that information.

The recognition of Chinese paintings has become increasingly important. Unlike Western paintings, which use light to express the form of objects, Chinese paintings rely on lines as their primary modeling method. This means that traditional recognition methods used for Western paintings cannot be fully applied to the recognition of Chinese paintings. In Chinese painting, lines play a crucial role in forming the image, and the way the brush is used determines the variation of lines. Edges are essential in representing the content of an image, containing a vast amount of visual information. To distinguish Chinese paintings from general images, researchers detect the consistency and granularity of image edges in different pixel sizes and color channels. Sheng Jiachuan (Liu, S., & Sheng, J. 2017) has developed an algorithm inspired by the appreciation of painting authenticity. This algorithm brings together the visual screening of brushwork styles by the brush used in paintings. Stroke composition and texture are extracted from a matrix of pixels with various features, computed, and recognized using various mathematical models. This ultimately achieves efficient recognition of Chinese paintings.

The primary objective of extracting local features lies in capturing all brushstrokes within the entire painting, thereby pinpointing the regions that best encapsulate the detailed brushstroke information and characteristics associated with the painter's style throughout the artwork. During the process of feature extraction, he classifies the extraction of features from ink paintings into two main categories: firstly, scrutinizing the structural aspects of the overall image, and secondly, analyzing the distribution of points or local features characterized by specific properties such as geometric features, area, and shape within designated regions of

the artwork. Initially, in the context of overall recognition, the limited color palette typically found in ink paintings renders color unnecessary, thus leading to its exclusion and the direct utilization of grayscale processing. In the context of regional display, Chinese paintings predominantly feature lines and brushstrokes, facilitating the extraction of local features such as brush direction, intensity, and speed. Edge detection techniques prove instrumental in capturing significant changes in pixel grayscale values, thereby enabling the identification of line features, which encapsulate local image characteristics including texture structures and abrupt arrangements. Leveraging algorithms, edge features can extract pen shapes and intensity distributions within a 64*64 pixel area. Typically, the artistic style of ink paintings in the pixel domain can be accurately discerned based on the painter's brushwork and distinctive characteristics. Additionally, the extraction of style within regions involves a nuanced understanding of crucial aspects such as brushstrokes and ink texture. Brushstrokes serve as reflections of various painters' unique brush techniques, encompassing factors such as brush direction, intensity, and speed, all of which play a pivotal role in delineating the artist's distinctive artistic style. Consequently, the primary objective of extracting local features lies in capturing all brushstrokes within the entire painting, thereby pinpointing the regions that best encapsulate the detailed brushstroke information and characteristics associated with the painter's style throughout the artwork.

Image extraction has various aspects, such as color, light, dark, and composition. Different researchers have different theories to describe them. However, we can define them generally as the analysis of Chinese painting or ink painting based on the texture of brush and ink, which is a clearer quantitative feature than color and lightness. The texture of Chinese painting is related to the artist's brush and ink characteristics, writing habits, and composition. It exists on the screen as a texture in the form of a pixel matrix with brightness, grayscale, and orientation, storing information about the painting. The extraction of texture has its limitations and needs to be supplemented or integrated with other features. Traditionally, natural features of painting and calligraphy are extracted centrally from computer images. For instance, the sampling method based on pixel arrangement can make a relatively clear distinction between Chinese paintings. As technology advances, there may be more transparent and more precise methods. However, we now refer to this texture as "meaningful pixel combinations." Texture and pixels are a small intersection between calligraphy, painting, and exhibited digital images. Can we understand the relationship between painting and calligraphy in the digital realm as "a regular arrangement of pixel matrices and similarities in identifiable features such as light and dark, grayscale, and shape?" Ink colors, brushwork, writing styles, lines, and edges are stored digitally in the regularity of the pixel display. The pixel matrix can be used in mathematical formulas to reveal its information and meaning and act as a cross-center between the real and virtual worlds, with the display as the endpoint.

Practice in the Flowing Pixels

We initiated our discussion with *xiàng* and gradually led the topic to pixels and textures in computer vision. Pixel and texture become the symbols connecting the present virtual and reality in the computer era in this study, and like the trigrams of a thousand years ago, they are a kind of present record of the flow of everything revealing itself, which contains the transmission of information and the connection between human beings and everything. The pixels and textures in front of the screen have similar functions and behaviours in our discourse, and they become the mapping and intersection of the two environments of reality and the virtual, so we express them as a kind of 'digital trigrams'. To develop our artistic practice according to the above, we will use the theme of flowing pixels to simulate the flow

of rhythm in landscape paintings and calligraphic works. According to the theory that writing and painting share a common origin, Chinese painting is often referred to as writing mountains and water. However, a closer examination reveals that it is actually a unique way of capturing the essence of nature, painter or writer takes the truth of what he sees and stores it symbolically in the ink paper. In today's digital age, this process translates into a series of "meaningful pixels" translated onto a computer screen. To explore this concept further, we captured a segment of a scenic landscape on camera and added a stylised, pixelated texture using post-production software. By observing the movement of these pixelated frames, viewers can gain a deeper appreciation for the interconnectedness of the universe. This immersive experience not only transports us into a virtual world but also allows us to explore the inner workings of our minds (see Figure 1 to 4).

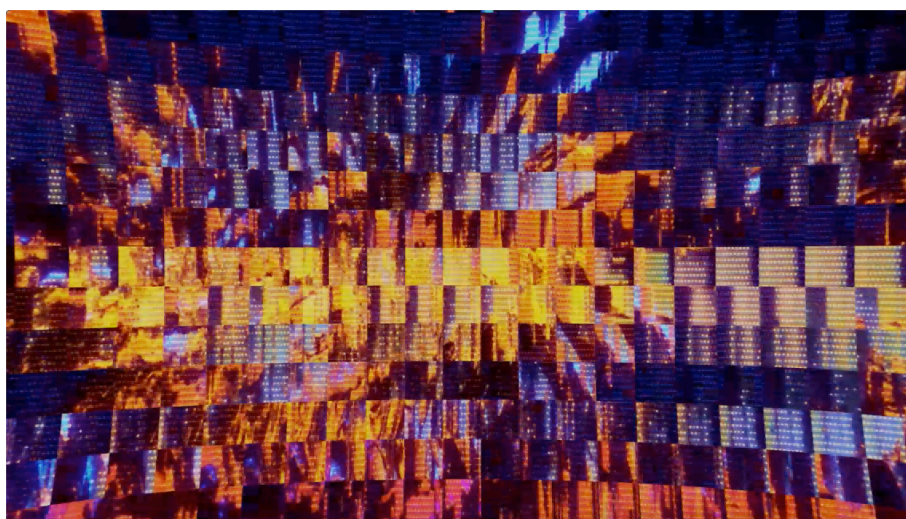


Figure 1: Xindu Wang, 2023, video work1, flowing pixels.

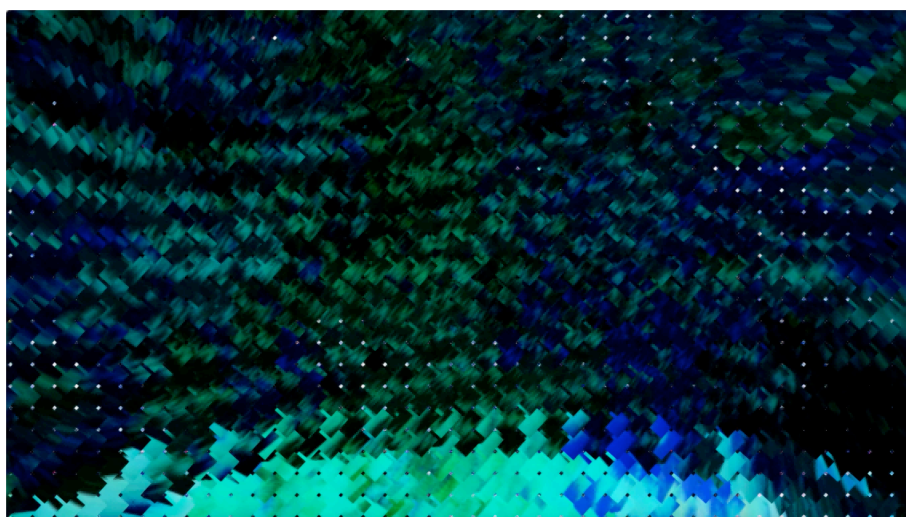


Figure 2: Xindu Wang, 2023, video work2, flowing pixels.

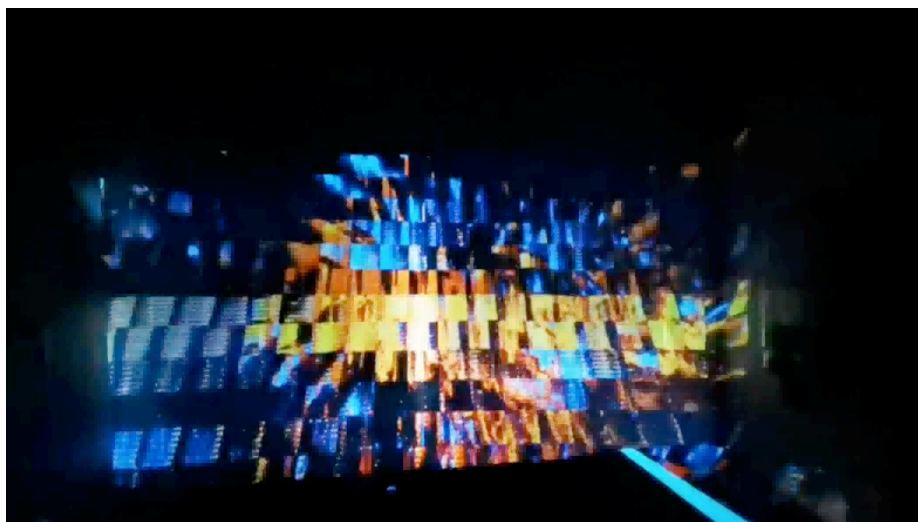


Figure 3: Xindu Wang, 2023, video work1, flowing pixels.
darkroom display.

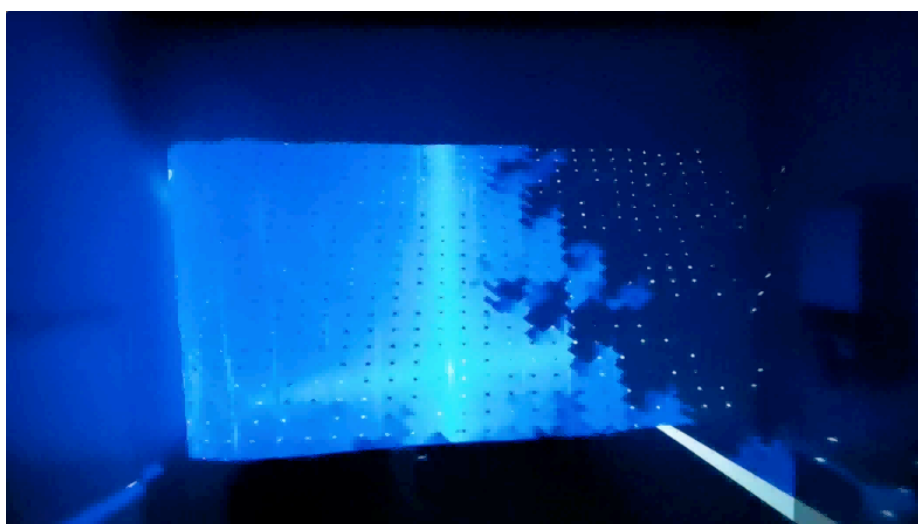


Figure 4: Xindu Wang, 2023, video work2, flowing pixels.
darkroom display.

Conclusion

We have traced an interpretation of current digital technology based on Chinese culture and described and presented it in theoretical and artistic practice. On the one hand, it can serve as a response to Yuk Hui's Cosmotechnics, and on the other hand, this kind of thinking also tries to answer the contemporary encounter between human beings and digital objects. How the heavy body can embrace digital technology beyond imagination has been a topic of discussion for many art and philosophical practitioners. We must try our best to orientate this future towards a living world that allows us to exist as living individuals. It is necessary to think about how we can effectively and rationally co-exist with technology. The human mind can inspire this thought, provided we believe in the potential creativity of our respective civilizations.

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*A Study of Communication Needs in Medical Interventions Using AAC for
Critical Care Recovery Patients*

Yi-Chun Li, National Yunlin University of Science and Technology, Taiwan
Wen-Huei Chou, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This study explores the communication needs of ICU patients who have lost verbal abilities due to trauma or treatment. It proposes an Augmentative and Alternative Communication (AAC) system to facilitate communication between patients, medical staff, and caregivers during recovery. The aim is to overcome communication barriers, enhance nursing quality, and prevent adverse hospital incidents caused by poor communication. This research fills a gap in AAC design for this specific healthcare domain, offering valuable insights for future development and testing of assistive devices. This qualitative study investigates the communication needs of critical patients, medical personnel, and family members in an ICU setting. The study found that patients have simpler communication needs, mostly related to sensation and physiological needs. However, when these needs arise, they become urgent. Overly complex communication systems can be burdensome and may be rejected by patients and caregivers. The advantages of AAC include improved communication efficiency and accuracy. Key design considerations for AAC include ease of use, simplicity, context-specific content, and language selection. A four-level AAC design prototype was proposed based on these findings, focusing on sensation expression, physiological needs, and emergency assistance. Future work will involve testing the prototype with patients, medical teams, and family members in the ICU.

Keywords: AAC, ICU Patients, User Requirement, Universal Design, Communication Design

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Introduction

Communication is a crucial behavior in daily human life. When communication abilities are impaired, we need to rely on Augmentative and Alternative Communication (AAC) as a temporary or permanent compensatory method (ASHS, 2005). However, the market demand for AAC is relatively small, resulting in fewer studies and less effectiveness research targeted at patients with special disabilities (Costello, Patak, & Pritchard, 2010; Tseng & Chou, 2016).

For patients who have lost their communication abilities due to temporary trauma or treatment interventions, AAC systems are not specifically designed for their needs, and they often find it difficult to operate these systems on their own. These patients might temporarily or permanently lose their ability to communicate and could be in an Intensive Care Unit (ICU), which poses a significant challenge for their families (Holm & Dreyer, 2018).

Therefore, this study aims to design and provide a patient-centered AAC system that also considers the needs of clinical care experts and the patients' families. During this special recovery period and within the unique care environment, the development of appropriate AAC tools and strategies is crucial and valuable for all three stakeholders.

Currently, there is no design research in Taiwan specifically addressing the unique needs of such patients. Most studies focus on the guidance provided by therapists, without discussing the design and development of the system from the users' perspective (Wang Yunchun, 2018). The research by Ma Ruiju et al. (2011) highlights that some high-tech assistive devices are powerful but expensive and complex, while low-tech assistive devices are cheaper, customizable, and more suitable for different patients' conditions.

Thus, providing a communication aid centered around the patient that also meets the clinical caregivers' needs and considerations is essential during this unique recovery period and care environment. Using more user-friendly AAC tools and strategies can be significant for both patients and caregivers. It can assist the medical team in offering safer and more accurate medical care, enhance patients' confidence during the recovery period, and strengthen their willingness to undergo rehabilitation (Santiago & Costello, 2013).

Development of AAC Systems

Research by Happ et al. (2015) indicates that there is a lack of studies documenting the provision of language response and communication aids to conscious patients during their medical recovery period. Thus, the design of AAC systems should integrate their communication strategies more comprehensively with medical professionals and clinical needs to have a more positive impact on public healthcare environments (Ten Hoorn et al., 2016; Blackstone & Pressman, 2016).

Personalized communication methods have evolved from traditional face-to-face, one-on-one interactions, and the use of pictorial symbols, speech, and writing to the utilization of the internet, text messaging, and social media applications. AAC systems themselves have transformed from traditional tangible devices into applications within computers or mobile devices (Light & McNaughton, 2012; Ganz et al., 2012). According to Handberg & Voss (2018), beyond creating communication possibilities for patients with communication impairments, there is also a need to provide a safer and more proactive healthcare experience. They emphasize designing communication content tailored to patients at different stages of

care, aiming to focus communication on the varying objectives at each stage and reducing unnecessary complexity in the system caused by extraneous communication needs (Handberg & Voss, 2018; Shady, Phillips, & Newman, 2022).

Studies further indicate that a healthcare system focused solely on physiological care is the real barrier to the implementation and use of AAC by healthcare professionals (Carruthers, Astin, & Munro, 2017; Vaeza et al., 2020). In such a “biomedical” cultural framework, healthcare professionals often overlook the actual needs of patients and lack the time and patience to teach and assist them in using AAC (Handberg & Voss, 2018; Zaga, Berney, & Vogel, 2019). Therefore, the education of healthcare professionals should emphasize patient-centered care to provide better nursing and enhanced communication. Healthcare professionals can play a crucial role in promoting AAC, but this requires further education, training, and follow-up actions (Hemsley, Balandin, & Worrall, 2012; Moorcroft, Scarinci, & Meyer, 2019). Consequently, the ease of learning and use of AAC is essential not only for patients but also for the healthcare teams.

Interview Study

To understand the needs of different types of users, this study conducted interviews with doctors, occupational therapists related to AAC use at National Taiwan University Hospital, recovered patients, and their families. By understanding the possible conditions of patients and the process of screening and background comprehension, we observed the patients' physical and verbal abilities and analyzed their current problems. Based on literature review, we conducted qualitative research targeting three stakeholders: the target patient group, experienced healthcare providers (occupational therapists), and patients' families. The aim was to understand the practical problems faced by these types of patients during their recovery period, including the communication needs among medical, caregiving, and patient groups during the ICU and recovery period.

The medical team interviews were conducted through focus group discussions with six ICU nurses and occupational therapists with over 10 years of clinical experience. Additionally, semi-structured interviews were conducted with three recovering patients and two family members. The selection of frontline healthcare providers and patient families aimed to understand the practical communication needs of critical patients during their rehabilitation period, maintaining objectivity in user needs research.

All interviews were conducted with the approval of the hospital. Focus group discussions lasted 120 minutes, while individual interviews were limited to 45-60 minutes. The interview data were analyzed using interpretive description research. Thorne (2016) suggests that interpretive description is particularly suitable for clinically relevant research and requires clinical experience and knowledge in the research questions. This method seeks a coherent conceptual description that identifies connections, relationships, and patterns in practice phenomena. Many researchers advocate using interpretive description for qualitative research in medical professional and caregiving experience studies (Handberg & Voss, 2018; Svenningsen, Egerod, & Dreyer, 2016).

Using this analytical method helps clarify the communication needs and practical issues of patients during their recovery period. It also identifies key items and vocabulary for communication needs, seeking the best form of AAC intervention in medical care.

Throughout the research process, discussions were held with the occupational therapy team at National Taiwan University Hospital to ensure data accuracy and correct research direction.

Discussion

Using traditional methods combined with binary eye-blink communication to guess and understand patient needs and intentions can lead to misjudgments in medical care. Over time, this may cause emotional distress in patients, reducing their rehabilitation motivation and will to live.

For most ICU patients, unless they are blind or have eye injuries, the eyes remain the last controllable means of communication. Compared to general communication-impaired patients, critically ill patients have relatively simple communication needs. Most patients during the recovery period focus on intuitive sensory needs and physiological issues such as pain, scalp itchiness, dizziness, and sensitivity to light and sound. Many critically ill patients are in a temporarily or permanently paralyzed state, so they do not have many daily living needs.

Overly simplistic communication designs can lead to patient discomfort, which may increase the burden on caregivers due to the patient's excessive use. When equipment and functions are too complicated, patients may lack the energy and strength to learn and adapt, leading to resistance to use. Medical caregivers may also find it difficult to learn. Communication issues that prevent caregivers from understanding patient needs can hinder the caregiving process.

Conclusion

This study aims to design and develop an eye-controlled communication assistance system specifically for ICU patients who experience temporary communication loss during medical recovery. A simple tablet as a communication device is chosen for its affordability, ease of installation, and use, thus serving as the core hardware of this system.

- 1) Firstly, the system's design must be easy to learn and use for both patients and caregivers. In addition to adhering to the principles of Augmentative and Alternative Communication (AAC) needs, the system should be designed with "user-friendliness" in mind, utilizing eye control to reduce operational difficulty and meet communication assistance needs.
- 2) Secondly, the design process should avoid overly complicated and daily life-oriented designs, and instead, focus on the specific communication needs of critically ill patients. These needs include:
- 3) Sensory needs: pain, itchiness, dizziness, sensitivity to hot/cold, light, and sound.
- 4) Physiological needs: hunger, thirst.
- 5) Assistance needs: suctioning, emergency calls.

Instructional needs: language selection, labeled body diagrams, day/night reminders, etc.

Finally, considering the characteristics of ICU patients and caregivers in Taiwan, the system should provide options in Mandarin, English, and Taiwanese Hokkien to ensure wider language accessibility and ease of use. In conclusion, the eye-controlled communication assistance system developed in this study will, through its simple and user-friendly design, meet the diverse needs of ICU patients experiencing temporary communication loss, providing effective communication support.

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Contact email: yichun@yuntech.edu.tw

Applying CDA and Vladimir Propp's Morphology of the Folktale to Nicholas Sparks' "The Guardian"

Doaa Taher Matrood AL-dihaymawee, Jabir ibn Hayyan Medical University, Iraq
Yousif Ali Yousif Salman, University of Diyala, Iraq

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

According to narratologists, Vladimir Propp's "Morphology of the Folktale" is generally recognized as one of the most inspiring contributions to "the understanding of plot structure" (Sundari, 2014, p.1). Therefore, Propp's theory was initially found to analyze Russian folktales. However, some researchers apply it to fairytales, such as Sundari (2014), who used it in "Sleeping Beauty," and Nursantia (2003), who used it in Joseph Conrad's novel "Heart of Darkness." Salmah (2004) applied Propp's theory to Charles Dickens's "Our Mutual Friend" in his thesis. Thus, the lack of using Propp's "Morphology of the Folktale" in novels in general and modern text in specific with Wodak's (2001; 2009) *discourse-historical approach* inspires researchers to fill this gap in the study by using Propp's theory in the contemporary book, "The Guardian" by Nicholas Sparks (2003) and a CDA theory on the exact text. This study tries to address the following research questions:

1. Is it possible to apply Vladimir Propp's *Morphology of the Folktale* (1927) to Nicholas Spark's novel "The Guardian"?
2. What are the good and bad morals portrayed by the main characters in "The Guardian"?
3. How many features of Propp's thirty-one features can be found in Nickola Spark's "The Guardian"?
4. What are the main macro-topics in the novel?

Keywords: Julie, Morphology of the Folktale, Nickola Spark "The Guardian," Vladimir Propp

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1. Introduction

Vladimir Yakovlevich Propp was born in St. Petersburg, Germany, on April 17, 1895. He died on August 22, 1970. In his lifetime, he is known for his fairy tale research. Propp studied hundreds of myths, fairy, and folk tales in Russia. He concludes with 31 functions and eight typical characters that can be found in almost any tale, literature, theatre, film, and television. Propp's book was first published in 1927. However, Propp's work remained unnoticed until the 1950s, when his book was translated into many languages. Propp states that the 31 functions can be found in any folklore regardless of its language, not only Russian folktale (Nursari1, Subiyantoro, & Saddhono, 2019, p.162; Sundari, 2014, p.1; Chamalah, et al., 2019, p. 61).

2. Propp's Morphology of the Folktale

This section deals with Vladimir Propp's theory. The reader needs to understand "Morphology of the Folktale" to understand the application part of the theory on the selected text. Thus, the following two sections are the theory that contains Vladimir Propp's Thirty-one functions and the application of these functions in Nicholas Spark's novel "The Guardian" (2003).

2.1 Absentation

One of the households is absent. It can be one of the older generations, such as a prince going to a foreign land, leaving his wife behind, parents leaving to work, going to trade, war, forest, and not coming back. Another type of absentation is the death of parents. The absentation is also includes the younger generation, such as going fishing, visiting, going for a walk, etc. (Propp, 1927, p. 26).

2.2 Interdiction

An Interdiction is given to the hero. "Take care of your little brother," "You dare not look into this closet," "don't you say anything; be silent". Sometimes, interdiction is considered advice, such as a mother telling her son not to go fishing. Stories usually indicate first absentation, then interdiction. However, sometimes, interdiction is delivered without an absentation such as "don't pick the apples,"; "don't kiss your sister,"; "don't pick up the golden feather,"; "don't open the chest" (Propp, 1927, p. 26).

An opposite form of interdiction is represented in the form of suggestion. "Take your brother with you to the woods," and "Bring breakfast out into the field" (Propp, 1927, p. 27).

2.3 Violation

Violation is not following the interdiction, whether it is a suggestion, warning, or advice, such as "the tsar's daughters go into the garden" or "they are late in returning home." At this point, a new character enters the story. It may be a devil, a witch, a dragon, bandits, etc. Their role is to disturb the family's peace and cause damage, misfortune, and harm (Propp, 1927, p. 27).

2.4 Reconnaissance

In the reconnaissance, the villain tries to find the location of something precious: "Where do you get these precious stones?" (Propp, 1927, p. 28).

2.5 Delivery

The villain receives information about his victim (Propp, 1927, p. 28). When a mother calls out her son, she reveals his presence to a witch (Propp, 1927, p. 29).

2.6 Trickery

In this function, the villain uses disguise. A witch presents to be a lovely lady. The dragon turns into a handsome youth or a golden goat. A thief pretends to be a beggar. To deceive their victim and take their possessions (Propp, 1927, p. 29).

2.7 Complicity

The hero submits to the villain's persuasions, such as going to swim, taking the ring, etc. (Propp, 1927, p. 30).

2.8 Villainy

This is one of the most essential functions. The villain causes injuries and harm to the hero or one of his family members. The forms of villainy are exceptionally diverse:

1. The villain kidnaps a person. A witch kidnaps a boy. A dragon kidnaps a peasant's daughter. The older brother kidnaps the bride of his younger brother.
2. The villain takes away a magical agent. The peasant finds a magic steed. Princess seizes a magic shirt. A stepmother orders the slaughter of an astonishing cow.
3. The villain spoils the crops.
4. The villain seizes the daylight. (Propp, 1927, p. 31).
5. The villain causes bodily injury.
6. The villain causes an unexpected disappearance. Such disappearance results from bewitching; a "stepmother puts her stepson into a sleep," A wife flies on a magic carpet.
7. The villain entices his victim. (Propp, 1927, p. 32).
8. The villain expels someone: A vicar banishes his grandson. A stepmother expels her stepdaughter. (Propp, 1927, p. 33).
9. The villain orders somebody to be thrown into the sea.
10. The villain casts a curse upon somebody or something.
11. The villain makes a substitution. A maid blinds the tsar's bride and pretends to be the bride. A maid turns the bride into a duckling and takes her place.
12. The villain orders a murder to be committed.
13. The villain commits murder. (Propp, 1927, p. 33).
14. The villain imprisons someone. (Propp, 1927, p. 34).
15. The villain threatens forced marriage.
16. The villain makes a threat of cannibalism.
17. The villain torments people at night.
18. The villain declares war. (Propp, 1927, p. 34).

2.9 Lack

A family member either desires or lacks something. For example, the hero is unmarried and looking for a bride. (Propp, 1927, p. 35).

2.10 Mediation

Mediation is divided into two types of heroes: victimized heroes and seeker heroes. If the tale is opened with a girl kidnapped and Ivan goes to look for her, the hero is Ivan, not the girl. This type of hero is the seeker's hero. However, if the girl or a boy is seized, the story is about their fate. Heroes of this type are called victimized heroes (Propp, 1927, p. 36).

2.11 Beginning Counteraction

This function is represented when the seeker decides upon counteraction. For instance, "Permit us to search for your princess." Sometimes, this feature is not described in words but as a volitional decision. This feature can be found only in tales when the hero is a seeker. (Propp, 1927, p. 38).

2.12 Departure

The hero leaves his home. Victim-heroes and seeker-heroes are different in their departure. The departures of the victim heroes mark the beginning of various new adventures in their new journey. While. Seeker-heroes have specific searches as their goal (Propp, 1927, p. 39).

2.13 Donnor

Someone or something offers the hero help.

2.14 The Hero's Reaction

The hero's reaction to the Donor's action. The response can be positive or negative. Negative.

1. The hero withstands (or not) a test.
2. The hero answers (or does not answer) a greeting.
3. He renders (or does not render) a service to the dead.
4. Does he free a captive or not?
5. Does he show mercy or not (Propp, 1927, p. 42)?

2.15 Provision or Receipt of a Magical Agent

The hero becomes able to use a magical agent. The supernatural agents can be animals, such as horses, eagles, etc., or objects like swords, rings, balls, cudgels, guslas, etc. Another form of magical agent is the power of transformation into animals (Propp, 1927, p. 43-44).

2.16 Spatial Transference Between Two Kingdoms, Guidance

Typically, the object of the search is located in a "different" or "another" kingdom. Thus, the hero should move too far away from the kingdom's horizon. The hero's travel may have

different forms: walking, swimming, on a ship's board, on the back of a horse or wolf, etc. (Propp, 1927, p. 50-51).

2.17 Struggle

The hero and the villain join in combat. They may fight in an open field. The hero and the villain engage in a competition. The hero wins using his skills (Propp, 1927, p. 52).

2.18 Branding/ Marking

A brand is applied to the hero's body. The hero gets a wound during a skirmish or battle (Propp, 1927, p. 52).

2.19 Victory

The villain is defeated.

1. The villain is beaten in an open fight.
2. He is defeated in a competition.
3. He loses at cards.
4. He loses on being weighed.
5. He is killed without an opening fight.
6. He is banished directly. (Propp, 1927, p. 53).

2.20 The Initial Misfortune or Lack is liquidated

In this function, the narrative reaches its peak. Here, the hero seizes the object of a search by using cleverness or force. Sometimes, the heroes use the same techniques villains use in the initial fights (Propp, 1927, p. 53).

2.21 Return

The hero returns. It is similar to departure. However, in release, the hero is given an eagle, a horse, etc., and then the forms of travel occur, whereas a return happens directly and in a similar manner as an arrival (Propp, 1927, p. 56).

2.22 Pursuit/ Chase

A pursuer (dragons' wives, etc.) follows the hero, such as "a witch flies after a boy." In this case, the hero may take refuge in a tree or elsewhere (Propp, 1927, p. 56).

2.23 Rescue

The hero is rescued from the pursuer. The hero flees, tries to disappear, hides, or throws obstacles in the path of his pursuer. The hero may turn into forests, mountains, lakes, etc. The hero may change his appearance, which makes them unrecognizable. A princess disguises herself as a prince. The hero is saved "from an attempt on his life" (Propp, 1927, p. 57-58).

2.24 Unrecognized Arrival

The hero, unrecognized, arrives in another country or returns home (Propp, 1927, p. 60).

2.25 Unfounded Claims

A false hero presents unfounded claims (Propp, 1927, p. 60).

2.26 Difficult Task

Another challenging task is presented to the hero (Propp, 1927, p. 60).

2.27 Solution

The hero does the extraordinary task of finding the princess before the time required ends (Propp, 1927, p. 60).

2.28 Recognition

A mark, a brand of a wound, or a star marking recognizes the hero. The hero may also know by a thing given to him such as a ring, towel, etc. Moreover, the hero is also recognized for accomplishing a difficult task (Propp, 1927, p. 62).

2.29 Exposure

The villain or the false hero is exposed. This function is linked to the preceding accomplishment of complex tasks. The false hero cannot do the job (Propp, 1927, p. 62).

2.30 Punishment

The villain and all the evil persons are punished (Propp, 1927, p. 63).

2.31 Wedding

The hero gets married (Propp, 1927, p. 63).

3. Applying Propp's Morphology of the Folktale on Spark's "the Guardian"

3.1 Absentation

The novel opens on Christmas night with Julie Barenson looking through the window and remembering the fresh death of her young husband. "At twenty-five, she was a widow and hated everything about the world" (Sparks, 2003, p. 1). "Jim's dead, and now that he's gone, I feel like I'm dead, too" (Sparks, 2003, p. 2). She was struggling with the pain of her loss because everything remained her of Jim: "Everything in the house, everything she saw and smelled and touched, reminded her of Jim" (Sparks, 2003, p. 2).

3.2 Violation

Until page one hundred, we have this worker warning Mike from Richard without knowing why: "Keep it that way. You don't want to know him" (Sparks, 2003, p. 100). However, Mike needs to tell Julie about this warning in time. They both listened to the worker's notice' when it was too late, and the consequences were enormous.

3.3 Trickery

When Richard first appears in town, everyone believes he is a good guy: "I told you he was a nice guy" (Sparks, 2003, p. 16). He attends church every Sunday: "I talked to her after church yesterday" (Sparks, 2003, p. 27). He was a handsome, polite young man. Everyone is astonished by his dates with Julie: "he seemed nice enough...Kind of quiet, but polite" (Sparks, 2003, p. 67). "Richard, it seemed, had picked Julie up in a limousine stocked with champagne; they'd gone to Raleigh for dinner. Afterwards, at the civic centre in front-row seats, they'd watched a live performance of *Phantom of the Opera*" "if that wasn't quite special enough to impress her, it turned out that Richard and Julie had sent Saturday together as well, down near Wilmington," "There they'd taken a hot-air balloon ride before picnicking at the beach" (Sparks, 2003, p. 86).

However, after Julie rejected being in a relationship with Richard, he started dating her co-worker, Andrea. Richard does not want anyone to know about their relationship or why they go to other cities, "Morehead city." Emma sees them: "She was with Richard. And get this, I just saw him kiss her" (Sparks, 2003, p. 291). Richard dates her not because he likes her but because he uses her to fulfill his sexual needs: "a woman meant nothing to him, but her body was soft and warm, and she desired him" (Sparks, 2003, p. 292). While having sex, he asks her not to make any sound because he imagines Julie instead. "He didn't want to hear her voice because it reminded him that she wasn't Julie" (Sparks, 2003, p. 292). In the morning, Andrea asks to go to the bathroom by mistake; she opens the darkroom, a room full of thousands of pictures he has taken for Julie while he was stalking her. "She was staring into the room to the left...The darkroom" (Sparks, 2003, p. 300), "Taped to the walls were hundreds of photographs of Julie" (Sparks, 2003, p. 346). Richard feels disappointed and angry. Therefore, he beats Andrea to death and throws her body in the wood.

3.4 Villainy

Richard Franklin represents the villainy feature. Even he looks handsome, friendly, and a gentleman "the way he looked. Richard, she was beginning to think, was just about the sexiest man she'd ever seen" (Sparks, 2003, p. 94). After taking Julie to the most beautiful dates, Richard gives her a locket. Later, when he visits Julie, he asks her why she is not wearing the locket: "Manipulated. As though he'd wanted her to promise that she'd start wearing the locket at work again" (Sparks, 2003, p. 94-95).

Julie stopped dating Richard, and he started to appear everywhere. She feels he stalks her: "I was sure as hell sounds to me like you planned this all along" (Sparks, 2003, p. 166). Once, he visits the salon and leaves his glasses as a chance to call or revisit Julie: "I know you left them on purpose just to have reason to call" (Sparks, 2003, p. 221). He watches her every day whenever she goes: "he'd been watching her in the cemetery" (Sparks, 2003, p. 241) and "watched Julie's shadow through the curtains in the living room" (Sparks, 2003, p. 320). Meanwhile, she receives these strange calls when she hears only heavy breathing and no words: "He'd been watching her, and now he'd called to tell her about it" (Sparks, 2003, p. 239). Once she receives twenty empty voicemails. Julie feels panicky and deletes all the messages. "She wished she hadn't deleted any of the messages" (Sparks, 2003, p. 244) because the police do not pay attention to her complaint. After all, she has no evidence. Especially after deleting all the voicemails, "I can't prove it, but I know it was him" (Sparks, 2003, p. 244). Julie, Mike, Henry, and Emma are scared because they know that Richard is not going to stop stalking her: "they were scared of Richard Franklin" (Sparks, 2003, p.

263), "He scares the hell out of me", "Her mouth, she realized, had gone dry" (Sparks, 2003, p. 247), "people like that don't stop" (Sparks, 2003, p. 242). He even entered Julie's house to put his pictures in the locket he gave her: "Can't you see that this is proof right here? That he's been in the house? That's breaking and entering" (Sparks, 2003, p. 315). Yet, the police do not believe he is a real danger to Julie's life.

That night, Julie breaks up with him. Richard told her that he was out of town because his mother died, "I wasn't prepared for much of anything. You can't imagine what it was up there...the way she looked at the end, what the nurses were saying, the way it smelled..." (Sparks, 2003, p. 169). Julie feels empathy for him, and she allows him to sleep over. Later, the reader learns that Richard killed his father when he was nine. After nine months, he killed his mother by putting all her sleeping pills in her vodka: "his mother's sleeping pills and slipped the contents into her vodka" (Sparks, 2003, p. 327). From here, the reader realizes how dangerous he is.

Richard was put in foster care with two other boys. However, they stole his camera to buy cigarettes: "those two boys who stolen his camera two months after he'd moved in" (Sparks, 2003, p. 206). "When he finds out, he uses a baseball bat to beat them. In the beginning, they laugh at him as they are taller and heavier than him. Yet "they were rushed to the hospital in a pair of ambulances" as "their faces crushed beyond recognition" (Sparks, 2003, p. 206). When the police came, Richard told them that what he did was only self-defense as the boys tried to kill him. "They were going to kill me. I was scared. One of them attacked me with a knife" (Sparks, 2003, p. 207). He even wound himself to convince the police "he'd been slashed across his lower stomach." "remembering with disdain the cut he'd so easily inflicted upon himself" (Sparks, 2003, p. 207). The case closed with the boys sent to Juvenile: "The two boys, nor Richard, were sent to the Juvenile detention facility, despite their pleas that neither of them had ever touched the knife, let alone slashed Richard with it" (Sparks, 2003, p. 207).

In school, he used his teacher to get into a decent college. He gave her a birthday gift and used to tell her about all his hardships. "She wrote a letter of recommendation to the University of Massachusetts." She begs them to accept him as he passes through many difficulties: "she'd never seen a young man overcome so much" "begging them to give him a chance" (Sparks, 2003, p. 210). However, after getting into the university, he does not speak with her, which shows how mean he is! "For once he'd been accepted to the university, he never spoken to her again. She had served her purpose, and he had no more use for her" (Sparks, 2003, p. 210).

Jessica is Richard's wife. He met her in a restaurant. She was a waitress there and was not even the one who served him. He was staring and smiling at her while he was eating. After getting married, Richard starts beating her. "He used to beat her" (Sparks, 2003, p. 384). "He's insane." "Everyone was afraid of him, including Jessica. He's violent and dangerous" (Sparks, 2003, p. 384). Till Jessica ran across the country, hoping she would not find her. "She took a bus halfway across the country and hoped he would simply let her go" (Sparks, 2003, p. 345). However, he haunted her: "He hunted her down" (Sparks, 2003, p. 386) and forced her back to his home. "I have no idea how he did it, but he found her and brought her back." Two weeks later, Jessica's sister and mom visit her and force her to move to her parent's house because they fear Richard will kill her. Moreover, one day, Jessica went to the supermarket to buy groceries and never returned. "She went to the supermarket one night for groceries, and we never saw her again. Everyone knew he did it, but they never found her"

(Sparks, 2003, p. 384). Meanwhile, Richard disappears from Boston. When Police Jennifer discovers his real name, “the camera is registered to Robert Bonham of Boston” (Sparks, 2003, p. 382). Jennifer calls the Boston police department to discover that “Robert Bonham is wanted for questioning in the disappearance of his wife, Jessica Bonham, Four years ago” (Sparks, 2003, p. 382).

To escape the police after murdering his wife, Richard starts watching a man named “Richard Franklin” to know more about all his habits and routines. “He’d watched the real Richard Franklin” (Sparks, 2003, p. 373). He decides to kill him and steal his identity. “Franklin began to cry, and three hours later, he was buried in a grave that would never be discovered” (Sparks, 2003, p. 374). “He’d take care of the real Richard Franklin, just as he’d taken care of his mother and father. And the boys in the foster home. And his roommate at college. And Jessica” (Sparks, 2003, p. 374).

Another victim is Andrea. Richard was friendly with her to use her sexuality. However, after she discovers the dark room, he tries to kill her most awfully: “It was bad...I’ve never seen anything like it” (Sparks, 2003, p. 331). “After seeing Andrea’s wounds when the doctors had changed her bandages, she knew with certainty that Richard Franklin was a monster” (Sparks, 2003, p. 375). Andrea ended up in a coma. Richard even tries to kill a policeman, Pete Gandy, when they discover that he beat Andrea and went to arrest Richard: “Too bad that Pete Gandy had rolled out of the way...he could imagine the delightful *whump* as the car crushed him” (Sparks, 2003, p. 345). At the novel's end, Pete protects Julie at the beach house. However, Richard tries to kill him again by smashing his head “he knew even before he saw Richard that someone was moving toward him” and “he felt something had crashed against his skull” (Sparks, 2003, p. 413).

One of the last brutal acts that Richard did was killing Singer. Even he knew that Julie was really attached to her dog. “Richard heard Julie screaming about her dog” and “He felt sorry for her and wanted to apologize” (Sparks, 2003, p. 409). Thus, he kills his parents, the honest Richard Franklin, Jessica, and Singer and hurts Andrea, Pete, Mike, the two boys, and Stalking Julie. Richard is definitely a villain.

3.5 Lack

Emotionally, Julie grew up in an unhealthy environment with her father's absence in her childhood and a drunk mother in her teens. Her house was packed with “booze and toxic men” (Sparks, 2003, p.14), which is totally unhealthy for a young girl to grow up in “how difficult her relation with her mother had really been, how unnerving it was to see men wandering in and out of her house at all hours” (Sparks, 2003, p. 90). One tried to rape her, and “the last one actually tried to have his way with her” when she fought him and told her mother. Her mother was angry and blamed her: “her mother, in a drunken, teary rage, had blamed *her* for coming on to him” (Sparks, 2003, p.14). A couple of nights later, her mother kicked her out of the house. “how desolate she felt leaving home before graduation high school.” (Sparks, 2003, p. 90). “how scared she’d been when living on the streets, especially late at night” (Sparks, 2003, p. 90). She was forced to live in the streets for six months where everyone was using drugs and “panhandled or stole....or worse”. She was scared to become like them. She worked in a lot of menial jobs to keep herself fed. One day, she meets Jim, who offers her a career, a place to stay, a love and a happy life.

However, her happiness does not last. After their fourth marriage anniversary, they discovered that Jim had a brain tumor. “Two years later, the brain tumor took his life” (Sparks, 2003, p. 15). She was in terrible pain and alone again, struggling with her loss. “I knew you didn't have anyone to help you get through something like this” (Sparks, 2003, p. 5). “It broke my heart to think you would be all alone” (Sparks, 2003, p. 4-5).

Julie struggled to find a suitable partner four years later: “Julie hadn’t been on a date since Jim had died” (Sparks, 2003, p. 12). She went on a date with Bob. Their conversation was only about his job. “His preferred topic of conversation on their date had been accounting” (Sparks, 2003, p. 12). Even after she stopped dating him, he called her thrice a week. “He was persistent...Annoying as hell but persistent” (Sparks, 2003, p. 12). Later, she starts dating Richard. Even though their date went very well, Julie stopped dating him because she did not feel a spark existed between them. “He didn't rock my boat.” “Whether it was chemistry, magic, or some combination of simply wasn't there. She just didn’t feel the little tingles on her neck that she had when Jim first took her hand.” “She didn’t feel like closing her eyes and dreaming of a future together” (Sparks, 2003, p. 89), “he seems like a nice guy...who’d be perfect for someone else” (Sparks, 2003, p. 90). Moreover, Richard shows that he is bothered because she does not wear the locket the next day. She was upset. “The way he’d said it, the look on his face, the feeling it gave her...all of it bothered her” (Sparks, 2003, p. 95).

She knows Mike was there for her in difficult times, and she likes him. She was sure he would not ask her out because he was Jim's close friend. Thus, she asks him out for a date: “If I wait for Casanova, I'll be so old that he'll have to escort me in my walker” (Sparks, 2003, p. 151). “that not only did Mike love her now, but there would never come a day when he wouldn’t” (Sparks, 2003, p. 159). Thus, Mike fulfills Julie's needs as he is her best friend, lover, and backup.

3.6 Mediation

Mediation is divided into two types of heroes: victimized heroes and seeker heroes. According to “The Guardian” narration, Julie is a victimized hero as she was a victim of her drunk mother and later Richard's stalking. Throughout the novel, the reader can feel how scared she is, unable to walk the streets without fear of being followed. She is terrified that Richard is calling again every time the phone rings. And lastly, she has to run to the beach house to escape Richard’s danger.

3.7 Departure (The Hero Leaves Home)

Our heroine, Julie, lives in the streets for six months: “Julie found herself without a home” (Sparks, 2003, p. 14). One day, a stranger named Jim buys her a coffee and offers her a job and a place to stay if she comes to Swansboro, North Carolina, a position she had never known. Initially, she thought Jim was trying to use her, but he denied any “improper interest” in her. Having no other choices, Julie takes the bus to Swansboro: “a month later...she showed up in Swansboro, thinking as she got off the bus, *What in the world am I doing in this nowhere town?*” (Sparks, 2003, p. 14-15). Thus, the heroine left her hometown, seeking a new life.

3.8 Donor (Provider)

Jim is the first donor in Julie's story. He finds Julie living in the streets. He offers her a decent living and a place to stay in his hometown: "If she moved to Swansboro, North Carolina, he would help her get a full-time job and a place to stay." (Sparks, 2003, p. 14). He also offers her the safety and the love she never felt in her childhood home. He introduces her to his friends, who later become her friends as well. Julie starts working with his aunt, Mabel, who taught her how to cut hair and helped her get her hairstylist license. Even after his death, he sends her a dog to feel less lonely and later to protect her. Jim is her guardian angel: "I'll be your guardian angel" and "I'll watch out for you" (Sparks, 2003, p. 5).

The Singer is the second donor. He is Jim's gift on the first Christmas after Jim's death. Julie was spending Christmas alone when a delivery boy suddenly gave her a box; when she opened the box, she found a small puppy with a note. She named this Great Dane puppy "Singer." "He really was an ugly thing" (Sparks, 2003, p. 5), and "he'd grow up to be the size of small horse" (Sparks, 2003, p.5). He follows her everywhere. Sometimes, he helps her with small tasks: "Will you turn off the bedroom light?" (Sparks, 2003, p. 10). Singer has a sixth sense "that enabled him to tell the good guys from the ones she should avoid" (Sparks, 2003, p.11). He always protects Julie till the end of his life, "He was protective of her. Just like Mike in his own way".

Mike is the third donor in this novel. He is Jim's closest friend. After Jim's death, Mike has a strong friendship with Julie. Physically, he is a handsome guy with blue eyes and light brown hair "and an easy smile to go with his trim build, he was good looking in an all-American kind of way" (Sparks, 2003, p. 19). "He was both good-hearted and nice-looking; she liked the way his eyes crinkled at the corners when he smiled." "she adored his dimples." He laughs a lot: "She liked guys who laughed, and Mike laughed a lot." "she really, really liked the sound of his laugh" (Sparks, 2003, p. 24). When Julie feels down after Jim's death, he is there for her: "Mike had been the one she'd turned on for comfort after Jim had died" (Sparks, 2003, p. 23), "the one who spent the first two years after Jim's death holding her as she cried" (Sparks, 2003, p. 78). He was always there for her. He used to fix her car, help to patch my roof, and repair her washing machine, "he'd been the good guy, the friend, the one she could always count on. The one who fixed her car and played Frisbee with Singer" (Sparks, 2003, p. 78).

They become emotionally attached with time: "she loved what was happening with Mike" (Sparks, 2003, p. 213). When they start dating, Julie glows as she finds in him the friend who understands her and the lover who adores her: "you're practically glowing these days" (Sparks, 2003, p. 215). When Richard is stalking her, Mike is the one who protects her: "Mike hadn't so much let her out of his sight for more than a few minutes except when she was at work" (Sparks, 2003, p. 276).

3.9 Receipt of a Magical Agent

The hero gets a magical eagle, a horse, etc. Sometimes, the supernatural agents appear in balls, swords, cudgels, guslas, rings, etc. Several characters offer their help at the hero's disposal; for instance, an animal provides his services to the hero as if he were present (Propp, 1927, p. 43-45). Singer is the magical agent that Jim sent to protect Julie. He does his job perfectly till the end of his life when Richard poisons him: "Julie cries grew louder, more frantic, and the sound was terrible" (Sparks, 2003, p. 409). "who had been Julie's companion

in life and, at the end, her guardian” (Sparks, 2003, p. 430). Sometimes, Julie feels that he is still with her at home. She smells his scent: “she smelled an odour that was undeniably him” (Sparks, 2003, p. 430). Once alone at night, she heard him drinking water from the kitchen bowl. “she heard him drinking from the water bowl in the kitchen” (Sparks, 2003, p. 430). Thus, Singer has the magical power to accompany and protect Julie even after his death.

3.10 Struggle

In the last pages, Julie enters the previous fight with Richard when he tries to force her to come with him, but she fights him so hard. With Singer and Officer Jennifer's help, Julie can win this fight.

3.11 Pursuit/ Chase

Richard chases Julie through the entire novel. Thus, she has to seek refuge in the beach house.

3.12 Unrecognized Arrival

Without leaving any tracks behind them, Julie and Mike run away to the beach house. Hoping that Richard will not find them.

3.13 Difficult Task

Finally, the hero may be recognized for accomplishing a challenging task (Propp, 1927). Julie has already passed through a lot, from living in the streets to the death of her husband. Now, her last task is to run away from Richard.

3.14 Punishment

The novel closes with the villain punished for all his evil deeds with death. Richard dies while he is trying to force Julie to come with him. Officer Jennifer Romanello fires on him. “There was a sharp, burning pain in his chest” (Sparks, 2003, p. 427). Suddenly, the gun feels heavy in his hand, and he misses when he fires at Officer Jennifer. The gun slips from his hands, and he drops to his knees, “Richard fell forward into the sand” (Sparks, 2003, p. 428). While Julie and Mike live happily ever after with Henry and Emma.

4. Conclusion

In this paper, the researcher studies Nicholas Sparks's novel “The Guardian” (2003) according to Vladimir Propp's *Morphology of the Folktale* to fill the study gap. Therefore, no study has applied Propp's *Morphology of the Folktale* to a modern fictional text. Among Propp's thirty-one features, the researcher finds fourteen. Propp did not assume that all the thirty-one features should be found in a single text. Accordingly, even though Propp's theory is comparatively old and intended to be applied to Russian folktales, it is easily used in novels and modern fiction. Lastly, according to Wodak's (2001; 2009) discourse-historical approach, the main topics are: topoi of Struggle, topoi of love, and topoi of abuse.

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Contact emails: duaataher1994@gmail.com
josephali836@gmail.com

Reflection on Tribal Cultural Experience: Shared Symbiosis of Tacit Knowledge

Pei-ching Tsai, National Yunlin University of Science and Technology, Taiwan
Wen-Huei Chou, National Yunlin University of Science and Technology, Taiwan
Shyh-Huei Hwang, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Since 1994, the concept of "community-based construction" advocating "learning about life from the people in the field" has been implemented for nearly 29 years. In recent years, an increasing number of academic fields have engaged in action research for local development, opening up new channels for theoretical innovation and breakthroughs. In 2020, the United Nations recognized the crucial role of indigenous peoples and local communities in the protection, restoration, and sustainable use of biodiversity through the Kunming-Montreal Global Biodiversity Framework. They acknowledged the significance of indigenous peoples as biodiversity guardians, emphasizing the substantial contributions of collaboration and cooperation with them towards achieving this goal. The utilization and transfer of indigenous cultures as a foundation of local knowledge can reduce the ambiguity and uncertainty of knowledge, enhancing the efficiency of knowledge transfer. Previous research on tacit knowledge transfer primarily focused on the characteristics of subjects or objects, with little attention to the collaborative relationships between knowledge subjects. Therefore, this study employs field surveys and in-depth interviews to explore the experiential learning and teaching practices of members in promoting tribal culture. The collected data are analyzed using literature research methods to assist in addressing the research objectives, compiling comparative data on the current situation as the results of this study, including : 1. Socialization, establishing a participatory community environment through media such as pictures, videos, and interactive tools, making tacit knowledge easier to circulate. 2. Internalization and externalization, establishing a tribal community culture, which helps tacit knowledge Openness and sharing of knowledge. 3. Combination, combining the tribal local sharing spirit with virtual online space, not only shaping and expressing one's own identity, but also communicating with the world and local places.

Keywords: Experiential Learning, Tacit Knowledge, SECI Knowledge Management, Media Richness

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Introduction

Taiwan is home to 16 indigenous peoples, each possessing distinct languages, cultures, customs, and social structures, with a total population of approximately 582,000 (Council of Indigenous Peoples, 2022). According to (Constructing a medium and long-term plan for smart governance of indigenous peoples, 2021-2024) ensuring indigenous rights is crucial. This involves advancing indigenous languages, cultures, and education while simultaneously fostering a favorable economic environment for indigenous peoples through the preservation and application of traditional knowledge and cultural heritage. At this stage of addressing indigenous issues and various unresolved challenges, ten key points have been identified, three of which emphasize integration, including:

1. The lack of an integration platform restricting the development of indigenous tourism and forestry industries.
2. The absence of integration for decision-making information concerning indigenous lands and traditional territories.
3. The deficiency of an integration platform, posing a threat to indigenous languages, which urgently need preservation and educational applications.

Today, governmental research on indigenous wisdom governance emphasizes the mission of achieving cultural heritage through ecotourism (United Nations Permanent Forum on Indigenous Issues, 2015). However, the experiential understanding and satisfaction gained from immersing oneself in the culture of indigenous communities during such journeys have led to the impact on tourism output (low repatriation rates), lower economic income, and constraints on indigenous tourism, agriculture, and forestry development (Performance Indicators for Indigenous Sustainable Living, 2019-2022). In light of these challenges, the reorganization of the indigenous ecological knowledge system and the construction and development of their own knowledge system pose essential questions. What makes the indigenous knowledge system appealing? Beyond serving as resources for nature and cultural tourism, are there additional utilitarian aspects that attract people? What improvements can be made to the current tribal cultural experiences? These are all issues that warrant in-depth exploration by academia, government, and industry. To address these questions, this study employs in-depth interviews as a method to collect data, aiming to grasp the complete context of participants' experiences with tribal immersion, rather than simply transplanting findings from foreign literature. Finally, the research interprets the analysis of tribal cultural experiences and sustainable development aspects from the perspectives of "indigenous knowledge," "SECI knowledge management," and "social media theory."

1. Research Motivation and Objectives

Indigenous tribes possessing both natural and cultural tourism resources (Ryan & Huyton, 2000; Akbar & Sharp, 2023) have been noted for their appeal to tourists interested in experiencing the original natural environment and observing indigenous ways of life (Chang, 2006; Ryan & Huyton, 2000; Liu et al., 2023). Apart from the desire to connect with nature, another significant motivation is the pursuit of exotic interests different from daily life, generating interest in the authentic lives of tribal communities (Ni, 2008; Zhao et al., 2010; Fjellidal et al., 2022). Past literature indicates that agricultural cultural experiential tourism is a common type of experiential tourism (Chen Kaili et al., 2012). Studies also show that participants in such activities have a positive impact on rural culture, farm life, and agricultural management, with educational and cultural heritage functions (Sharpley & Stone, 2014). Knobloch (2017) further suggest that the functional value has a greater impact on

educational experiences, indicating that the educational experiences provided by the traditional ecological knowledge framework of indigenous peoples can bring practical benefits (such as knowledge, skills, or abilities enhancement) that significantly influence participation in such experiences. Cole (2007) argues that cultural commodification, driven by the economic benefits of tourism development, provides political resources and empowerment for minority groups' identity. From the perspective of local residents, cultural commodification can be positive and mutually dependent on tourism development. Culture is the accumulation and extraction of experiences in indigenous life, and appropriate commodification can convey the meaning of culture.

Therefore, considering the "economic aspect," tourism benefits can be one of the conditions affecting the sustainable development of tribes. From the perspective of cultural experience, the quality of experience is not only cognitive but also emotional; emotions and feelings play a fundamental role in the quality of relationships (Hennig-Thurau & Klee, 1997). This study will explore the following three questions:

1. What are the specific influencing factors for the transmission of tacit knowledge ?
2. What are the patterns of knowledge reception by tribal cultural experience participants ?
3. Under the collaborative influence of the environment, what contributes to increasing individual and organizational tacit resources ?

2. Literature Review

2-1 SECI Knowledge Management

The scholars Ikujiro Nonaka and Hirotaka Takeuchi, who proposed the "knowledge creation model," developed the "knowledge conversion spiral theory" known as the SECI model. This model intertwines "explicit knowledge" and "tacit knowledge," creating four modes of knowledge transformation: socialization, externalization, combination, and internalization (SECI). It is also referred to as the "Knowledge Spiraling." The SECI Model is illustrated in Figure 1 and is explained below:

- (1) Socialization: In this phase, knowledge is created through the sharing of experiences or insights. It involves the process of innovating tacit knowledge through personal interactions, without relying on written information. For example, apprentices learning techniques from masters by observing, imitating, and practicing.
- (2) Externalization: Externalization involves the articulation of tacit knowledge into explicit knowledge through structured conceptualization. Tacit knowledge can be expressed using metaphors, analogies, concepts, assumptions, or models. An example is the process of creating a new product.
- (3) Combination: Combination is the systematic linking of various explicit concepts or knowledge to form a new knowledge system. It involves reorganizing existing information by classifying, adding, and combining to create novel knowledge.
- (4) Internalization: Internalization is the process of transforming explicit knowledge into tacit knowledge. It involves the "learning by doing" approach, where explicit knowledge is converted into tacit knowledge through practical application.

In summary, through the continuous cycle of the Knowledge Spiraling, organizations can generate abundant explicit knowledge. This not only enhances individuals' tacit knowledge but also elevates the value of both the individual and the organization. The SECI Model offers a framework to describe how knowledge is generated, transmitted, and utilized, providing practical guidelines to facilitate knowledge management and utilization. This interactive process is referred to as the "conversion of knowledge."

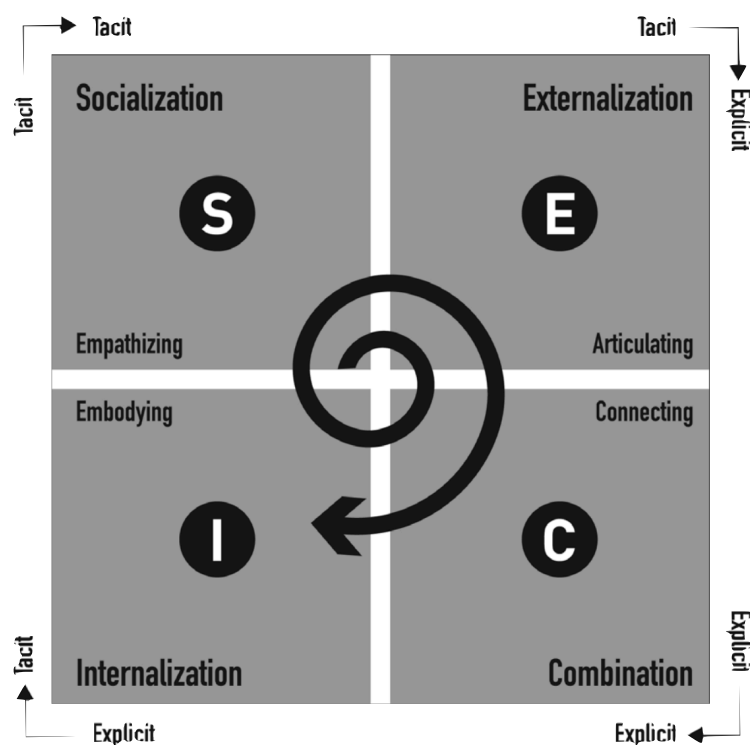


Figure 1. SECI Model (source: Nonaka & Takeuchi, 1996)

The SECI model has been applied to research on indigenous knowledge management in Africa (Konadu-Agyemang, 2000; Lwoga et al., 2010; Ngulube, 2003; Foster et al., 2023). Ngulube (2003) found that indigenous tacit knowledge can be managed using the SECI model. By engaging in fieldwork and combining patterns and knowledge found in literature, storytelling, handicrafts, dance, and music, social sustainability development can be achieved.

In the continuous dynamic innovation process of the SECI model's four stages, "Ba" (place) is a key concept. Ba refers to a context of time and space, which can be a physical space, a virtual network space, or even a shared ideal spiritual space. In the socialization phase of the SECI knowledge management model proposed by Nonaka and Takeuchi (1995), which focuses on tacit knowledge through oral communication, Originating Ba and Dialoguing Ba play essential roles. Each Ba is a critical context in the knowledge creation process, making the establishment, maintenance, and utilization of Ba crucial for promoting organizational knowledge creation. The characteristics of four Ba are outlined below:

- (1) Originating Ba: Originating Ba is a context that facilitates face-to-face interaction, enabling individuals to share experiences, feelings, and emotions. Face-to-face interaction allows the reception and reflection of core emotions through the five senses. Sharing tacit knowledge in Originating Ba is realized through the care, love,

trust, and commitment generated in this context, forming the foundation for knowledge transfer among individuals.

- (2) **Dialoguing Ba:** Dialoguing Ba is a context for face-to-face collective interaction where individual skills are shared and transformed into common terms or concepts. Dialoguing Ba provides a context for knowledge externalization, allowing individuals to share and express tacit knowledge through dialogue. Knowledge expressed by individuals is brought back and further articulated through self-reflection. Unlike Originating Ba, Dialoguing Ba consciously constructs knowledge, with the selection of individuals possessing specific knowledge and skills being a key factor in managing knowledge creation in this context.
- (3) **Systemising Ba:** Systemising Ba is a context that provides collective virtual interaction, mainly showcasing explicit knowledge. As explicit knowledge can be easily disseminated to a large audience through forms like written documents, networks, databases, etc., Systemising Ba offers a virtual collaborative environment. Many organizations today provide platforms like email and discussion groups, enabling participants to exchange information or answer questions more effectively, facilitating the collection and dissemination of knowledge information.
- (4) **Exercising Ba:** Exercising Ba is a context that provides individual virtual interaction, offering a platform for knowledge internalization. In this context, individuals can "embody" knowledge through explicit knowledge conveyed via virtual media, such as written manuals or operational procedures. Exercising Ba achieves transcendence and reflection through "action," while in Dialoguing Ba, it is achieved through abstract thinking in the mind.

In a study by Agyemang (2019) on the Krobo tribe in Ghana, the knowledge created and used in the bead-making process corresponded to the socialization phase of the SECI model. However, the practicality of the internalization, combination, and externalization processes was relatively low. Indigenous knowledge transformation often involves Originating Ba and Dialoguing Ba, while Systemising Ba and Exercising Ba are rarely implemented (Figure 2).

		Type of Interaction	
		individual	collective
Media	Face to face	(1) Originating Ba Provide a social situation for individuals to share their experiences, feelings, and emotions face-to-face. (socialization)	(2) Dialoguing Ba Provide a collective face-to-face interaction situation for participants to share and express knowledge. (externalization)
	virtual	(3) Exercising Ba Provide a virtual collaboration platform for collective interaction. (combination)	(4) <u>Systemising Ba</u> Provide an environment where individuals embody virtual collaboration platforms to convey explicit knowledge. (Internalization)

Figure 2. The Four Types of Ba (source: Nonaka, 2000)

2-2 Richness of Media

The rise of social media platforms has significantly enhanced the exchange of ideas, opinions, and information within virtual networks and communities. Notably, platforms like Facebook have greatly shaped how generations from different racial backgrounds access news and information (Mittelstädt & Odag, 2015). The interaction of multilingual social media with mainstream culture has brought about changes in expectations, attitudes, and resources regarding cultural adaptation, which can either motivate or constrain the adaptation processes of minority communities (Lai et al., 2022). Dinah (2022) points out that rich media with high sensory information and interactivity can provide rapid feedback, convey various implicit messages, and effectively communicate personal emotions. However, the expansion of media consumption has both positive and negative impacts on individual perspectives and attitudes, transcending the boundaries of the groups they belong to (Hoffman, 2018).

Additionally, framework theory often exists in two contexts: "frames in communication" or "media frames," referring to images, descriptions, phrases, and presentation styles suitable for conveying messages using socio-cultural or media elements. The second is cognitive frames, which depend on individual perceptions, including the understanding of specific situations (De & Lecheler, 2012). Therefore, the focus of framework theory lies in how digital media can trigger moral concerns about cultural and social issues. To some extent, this theory is used to help researchers more systematically collect, select, and organize information. The application of framework theory requires a more systematic and in-depth analysis, especially when dealing with the decision-making processes between organizations and communities in building and maintaining mutually beneficial relationships. Establishing a general reference framework on topics or issues of common concern is necessary for effectively establishing relationships with Esser dimensions (Strömbäck et al., 2009).

Media should be seen as a continually existing socio-cultural production system responsible for broadcasting, distributing, and communicating symbols, signs, messages, as well as associated meanings and values. This underscores the profound impact of media on society and culture and its crucial role in shaping information dissemination and value systems. Through new behavioral patterns, digital technology influences and reinforces the transformation of racial identities, acting as an accelerator or booster for digital culture, as depicted in Figure 3 (Deuze, 2006).



Figure 3. The shifting of ethnicity due to digital technology (source: Deuze, 2006)

What transformations are required in the current models related to digital media development and cultural issues? This study is based on the SECI knowledge creation model's four stages and the corresponding concepts of four "Ba" (fields). It analyzes the process of deep experience transmission and knowledge creation in the Zhongyuan Tribe.

3. Research Methods and Analysis

To achieve the research objectives, this study employed field investigation and in-depth interview methods for the collection, analysis, and interpretation of research data.

3-1 Semi-structured Interviews

To clarify the effectiveness of the current implementation of tribal experiences, semi-structured interviews were conducted with guided questions as outlined in Table 1.

Question purpose	Question	Corresponding research purpose
Understand the variety and scope of tribal experiences	Where do you usually go to learn this skill or knowledge?	一
Understand the knowledge sources and inheritance of teachers/experiencers	From whom did you learn this knowledge or skill (weaving or hunting)? Is anyone learning this knowledge or skill from you?	二
Understand the management and regulation of tribal resources	Where can you find out about the tribal experience course? Are there any limitations for you in teaching/learning Tribe Experience?	一
Understand the relationship between tribal management and belief	Are there any taboos in teaching/learning tribe experience courses? Or something that needs attention? Are there any restrictions?	二

Table 1. Guided Questions for In-Depth Interviews on Tribal Experiences

3-2 Research Participants

For the in-depth interviews conducted in this study, a total of 12 individuals from the Central Plains tribe were selected. To facilitate a comprehensive discussion, the participants were categorized into three groups based on their occupational attributes. The first group comprised 2 individuals who were indigenous educators responsible for implementing tribal immersion programs. The second group consisted of 2 individuals serving as managers of the teaching studios involved in the tribal immersion programs. The third group, with a total of 8 participants, primarily included students who actively participated in the tribal immersion programs. This categorization allowed for a diverse representation of perspectives, incorporating insights from both those facilitating the tribal experiences and those directly engaging in the programs as learners.

3-3 In-Depth Interview Methodology

This study employed field research, involving both on-site observations and telephone interviews to gain insights into the knowledge and information dissemination experienced by participants in tribal immersion programs. This data was analyzed to understand the impact of tribal experiences on individuals. Additionally, focused in-depth interviews were conducted with individuals representative of specific themes, such as those with expertise in tribal knowledge and members of the community (B-F-3, B-F-4) from the Central Plains tribe.

The in-depth interviews were conducted in two formats, and the interview information is outlined in Table 1. The interview topics included the sources of participants in past tribal immersion programs and perspectives on tribal experiences as open learning environments (see Appendix). These interviews predominantly involved individuals with firsthand experience living in indigenous communities. The second format involved more relaxed and

open-ended conversations, tailored to the research objectives, and focused on specific purposes outlined in Table 2.

serial number	Interview date	Interview object	Interview time	Interview context	Interview topics
1	2022/10/22	A-F- 1	PM1-4	Group interview at "Xiong Kenzuo's home"	Perspectives on tribes as open learning fields
2	2022/10/22	A-F- 2	PM1-4	Group interview at "Xiong Kenzuo's home"	Perspectives on tribes as open learning fields
3	2022/12/30	B-F- 3	AM9-10	telephone interview	Perspectives on tribes as open learning fields
4	2022/12/30	B-F- 4	AM11-12	telephone interview	Perspectives on tribes as open learning fields
5	2022/1/01	C-M-5	AM11-12	telephone interview	Perspectives on using tribes as a site for experiential cultural learning
6	2022/1/02	C-M-6	AM11-12	telephone interview	Perspectives on using tribes as a site for experiential cultural learning
7	2022/1/02	C-M-7	PM1-2	telephone interview	Perspectives on using tribes as a site for experiential cultural learning
8	2022/1/02	C-F- 8	PM2-3	telephone interview	Perspectives on using tribes as a site for experiential cultural learning
9	2022/1/02	C-F- 9	PM3-4	telephone interview	Perspectives on using tribes as a site for experiential cultural learning
10	2022/1/03	C-F-10	PM1-2	telephone interview	Perspectives on using tribes as a site for experiential cultural learning
11	2022/1/03	C-F-11	PM2-3	telephone interview	Perspectives on using tribes as a site for experiential cultural learning
12	2022/1/03	C-F-12	PM3-4	telephone interview	Perspectives on using tribes as a site for experiential cultural learning

Participant code description : Identity and position 、gender 、serial number
Identity and position : A-Tribe experience teacher 、B-Head of Tribe Experience Studio 、C-experiencer
gender : M-male 、F-female

Table 2. In-Depth Interview Information

Problem oriented	secondary aspect	development interview questions
Aboriginal cultural knowledge connotation	knowledge	Where can I learn about weaving, hunting, food and agriculture? How to use weaving, hunting, food and agriculture resources? What do you think about weaving, hunting, and food farming?
	Practical aspect	Knowledge and skills of weaving, hunting, and farming Allocation and management of tribal resources Taboos and norms for using cultural resources
	faith aspect	What are the taboos and norms about hunting, weaving, and food farming? The meaning of tribal rituals
Acquisition and exchange of tribal cultural knowledge	Knowledge gained from hometown or family	In your hometown (home), who do you learn from, how do you learn, and what knowledge do you learn?
	Traditional knowledge is stimulated by the diverse origins within the tribe	What is the universal knowledge connotation after the knowledge exchange between different native tribes in the Central Plains and Qingliu?
The inheritance of tribal cultural knowledge	Inheritance within the tribe	Within the tribe, to whom, how, and what cultural knowledge is passed on? What are the thoughts and willingness to learn ecological knowledge within the tribe?
	Tribe's external inheritance	Outside the tribe, to whom, how, and what cultural knowledge is passed on? What is the idea and willingness of the tribe to spread ecological knowledge to outsiders? How do students in specialized aboriginal classes in high schools and universities learn and what weaving knowledge do they learn? Reflections and feedback on learning weaving knowledge in aboriginal classes in high schools and universities?

Table 3. Specific Purpose Interviews

4. Research Results

4-1 Application of the SECI Model in the Central Plains Tribe

4-1-1 Socialization

Achieved through the exchange of personal tacit knowledge experiences in daily life.

Researchers found various informal learning methods in the tribe's daily life. For instance, the apprentice system is a common informal learning method, where apprentices learn from tribal

elders through imitation, practice, and feedback to acquire skills. Another prevalent informal learning method is learning through working alongside professionals. For example, B-F-3 learns from the tribal mothers, and individuals like Shu Hui learn weaving techniques by working with skilled women. These methods are cumulative processes that require time. Within the tribe, members typically transmit experiential knowledge through experience exchange. The knowledge generated through this transmission is personal tacit knowledge, transferring from one person's tacit knowledge to another's. This mode of transmission is the most commonly used by tribal members. The process of this transmission is analogous to the socialization process in Nonaka and Takeuchi's (1995) knowledge creation model.

4-1-2 Externalization

The process of explicitly expressing personal tacit knowledge:

Insufficient awareness of indigenous knowledge and a lack of knowledge-sharing culture may limit tribe members from externalizing their tacit knowledge into explicit knowledge (Kisusi & Lwoga, 2023). The former relates to the life experiences of tribal members in their homeland, with traditional knowledge stemming from these experiences. Members aged 50 and above have 10-30 years of homeland experience. The sharing culture begins in families, naturally embodying elements of sharing and mutual assistance. The Central Plains tribe relocated to its current site in 1939 due to various reasons, leading to struggles and the imprisonment of tribal leaders opposing the move. Despite resistance, the tribe eventually settled in the new location, establishing the "Nakahla" tribe, named by the Japanese as "Central Plains Tribe" in Chinese. Following resistance events, tribe members became more united (B-F-3).

4-1-3 Combination

Organizing and summarizing explicit knowledge from multiple sources:

After obtaining explicit knowledge from various sources, tribe members in the Central Plains organize and reassemble it to create new explicit knowledge. Modes of disseminating explicit knowledge include tribal university courses, communication software, television, and explicit knowledge narrated by others. However, tribe members are not adept at using written or non-verbal means to convey explicit knowledge; they often utilize mobile communication software (Line) as a tool for transmitting explicit knowledge. This includes self-recorded videos, photos, etc. These methods enable tribe members to organize and summarize explicit knowledge from multiple sources, creating new knowledge. This process aligns with the combination stage in Nonaka and Takeuchi's (1995) proposed knowledge creation model.

4-1-4 Internalization

Ideally, experiential educators in the Central Plains tribe could internalize comprehensive knowledge in daily practice, encompassing knowledge from various domains within the Central Plains and Chingliu tribes, as well as knowledge of drawing system diagrams, knowledge practices, and knowledge management. However, in reality, the predominant means through which tribe members acquire knowledge is in a socialized environment with face-to-face interactions, resulting in fewer instances of transforming explicit knowledge into individual tacit knowledge within the Central Plains tribe. This finding is consistent with the transmission of indigenous knowledge, often occurring in socialized contexts through tacit knowledge and oral forms (Berkes & Folke, 2000; Lwoga et al., 2010). It also aligns with (Agyemang et al., 2019) assertion that the transmission of indigenous knowledge primarily

occurs in socialized contexts, with less emphasis on externalization, combination, and internalization. The results of this study reinforce this observation.

4-2 Applicability of Ba in the Central Plains Tribe

The study reveals that in the Central Plains tribe, tribe members employ the Originating Ba and Dialoguing Ba to share cultural knowledge. The Originating Ba encompasses various life practices such as homes, tribes, and mountain areas, serving as the physical environment for face-to-face interactions among tribe members. On the other hand, the Dialoguing Ba provides a spiritual space for tribe members, fostering an environment for knowledge exchange. In contrast, the utilization of the Exercising Ba and Systemizing Ba is less frequent (Figure 4). These contexts of knowledge sharing contribute to assisting tribe members in the creation, sharing, and application of cultural knowledge in the Central Plains tribe.

Type of Interaction		
	individual	collective
Face to face	(1) Originating Ba Traditionally, this knowledge is passed down orally from elders and tribesmen to the next generation, usually preserved and shared through oral traditional stories, songs, dances, rituals, etc.	(2) Dialoguing Ba Aboriginal tribes are a place full of history, tradition, culture and knowledge. In a tribal environment, tribal people will have a profound connection with the natural environment, ancestral spirits, religious beliefs, etc. and have in-depth discussions on themes. The environment of the tribe can provide a suitable place for knowledge exchange and inheritance and help pass on tacit knowledge to the next generation.
	(3) Exercising Ba <ol style="list-style-type: none">Through social media, individual creators, artists, and professionals can use social platforms and resources to create content, artwork, and other creative works, while also sharing explicit knowledge and culture.the Central Plains Tribal Development Association can provide training, education, resources and support to assist community members to better understand and apply knowledge to promote the economic, cultural and development of tribal communities. This allows tribes' activities and explicit knowledge to be disseminated through social media, expanding their scope of influence.	(4) Systemising Ba <ol style="list-style-type: none">Create social media platforms: Tribal development associations and social groups can establish their own social media platforms so that members can interact, share knowledge and culture, and promote dialogue.Managing knowledge systems: May include establishing a knowledge management system to organize, store and share manifest knowledge. This system can include databases, information sharing tools and knowledge management processes to ensure the effective dissemination and preservation of knowledge.Cooperation and joint efforts: Tribal development associations and social groups can cooperate through social media platforms to jointly promote the sharing and application of Seediq explicit knowledge. This cooperation can include joint projects, workshops and online discussions.
virtual		

Figure 4. Tribal Knowledge Sharing Contexts (Created by the Researcher)

In the Central Tribe, the lack of a knowledge-sharing culture may hinder the process of transforming tacit knowledge into explicit knowledge for the tribe members. This is because the shared beliefs within the tribe and the spirit of local sharing are fundamental elements for the externalization of knowledge, permeating the entire knowledge transmission process within the tribe.

4-3 Enhancing Media Richness to Facilitate the Increase of Recipients' Tacit Knowledge

This study proposes four primary learning directions to achieve a cyclical, diffusive, convergent interaction model of cultural knowledge between the community and individuals. This involves employing four diffusion modes to make socialization, externalization, combination, and internalization the core processes of experiencing tribal culture. Building an organic learning system through these four directions facilitates the continuous transmission and exchange of knowledge among tribe members. The following explanations focus on media richness, recipient trust, and alignment with organizational incentives:

(1) Media Richness

(a) Promoting Community Building: Enriched media, such as images, videos, and interactive tools, can establish a more engaging community environment. This richness aids members in sharing and discussing knowledge, allowing tacit knowledge to circulate in a more vivid manner.

(b) Opportunities for Externalization: Rich media forms provide more opportunities for externalizing knowledge. Members can express their tacit knowledge through text, images, audio, etc., transforming it into more understandable and shareable forms.

(2) Recipient Trust

(a) Integration and Trust Building: Trust is a key factor in building a community culture. Through appropriate media richness, trust among members becomes easier to establish. Trust-building facilitates open sharing of knowledge, including tacit knowledge that might be perceived as sensitive or risky.

(b) Trust-Enabled Internalization of Knowledge: Members trusting the community culture are more inclined to accept external knowledge and internalize it into their own knowledge systems. This trust-enabled internalization helps incorporate external knowledge into tribal culture.

(3) Alignment With Organizational Incentives

(a) Incentives for Community Building: Organizations can encourage member interaction by providing incentives for community participation. These incentives may include recognition, bonuses, or other forms of acknowledgment, making members more willing to share their tacit knowledge.

(b) Organizational Support for Externalization and Internalization: Organizations can offer support to facilitate the externalization and internalization of knowledge. This includes training, resource allocation, and a corresponding reward system to ensure that the processes of socialization, externalization, combination, and internalization align with organizational goals.

5. Conclusion

Based on the SECI knowledge creation model's four stages and the corresponding four Ba (contexts), this study aimed to clarify the knowledge transmission and creation processes in the indigenous Atayal tribe. The research findings reveal that the cultural transmission in the Atayal tribe is primarily achieved through tacit knowledge and oral traditions, aligning with the "socialization" context in the SECI model. Therefore, promoting the dissemination and preservation of tacit knowledge in activities will be a key factor in successfully managing knowledge. The advancements in technology and the widespread use of digital media have opened up new avenues for communication and interaction, particularly within indigenous communities. These technologies provide a platform for indigenous people to disseminate their culture and values more widely, engaging with mainstream society.

The rise of social media and online communities enables interaction, sharing of perspectives, values, and life experiences, expanding their horizons. The prevalence of social media technology also contributes to the development of individualism, allowing indigenous people to shape and express their identity more effectively. Through interactions with their surroundings and participation in digital platforms, indigenous members gradually establish an identity aligned with their values. This transformation is crucial for the sustainability of indigenous societies and economies, enabling them to participate more confidently in social and economic activities. Moreover, according to Goffman's perspective, individuals' perception of identity is crucial. Indigenous members, through digital media, create an identity they believe others will recognize and accept. Digital media can play a role in accelerating the transformation of racial identity in indigenous societies. The prevalence of social media allows more indigenous members to shift from a community perspective to a global perspective, advocating for their social needs. Additionally, new media enables indigenous members to actively participate in social and political activities, further strengthening their position and influence in society.

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Contact emails: tsai.peiching.ching@gmail.com
second:cris@yuntech.edu.tw
third:hwangsh@gmail.yuntech.edu.tw

***Harmonising Traditions:
An Ethnographic Exploration of Nanyin Pedagogy in Singapore***

Lyn Lee, Independent Scholar, Singapore

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The study explores how Nanyin as a traditional Chinese music art form originating in China is taught and learned in Singapore. Educational materials and historical contexts highlight variations in ideologies, learning methods, and teaching approaches for Nanyin across regions, which can be attributed to socio-cultural differences. The practice of Nanyin is intricately tied to traditions, rituals and Confucian values that have always been part of Chinese culture. In a multi-cultural society like Singapore, its endeavour to establish a distinct and unique musical identity has led to the development of cultural policies which have shaped the practice of Nanyin in the country. This research employs an ethnographic approach to uncover the disparities between the historical, aesthetical and mythological perspectives of Nanyin to discover the driving factors behind its learning and teaching practices. In doing so, it documents the evolution of Nanyin education in Singapore, emphasising its significance as an important aspect of the Chinese culture. This paper presents insights gathered from interviews with practitioners from China, Taiwan and Indonesia, providing valuable perspectives on pedagogical models. By examining these diverse approaches, it offers a framework for the continued learning and teaching of Nanyin in Singapore, contributing to the preservation and appreciation of this musical heritage.

Keywords: Nanyin, Arts Pedagogy, Traditional Chinese Music, Culture, Heritage

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Introduction

Nanyin also known as “music of the south”, originated from Fujian in the southern part of China during the Han dynasty: 206 B.C. – A.D. 220 (Wang, n.d., p. 1). Depending on the location where the art is practiced, it may also be referred to as *Nanguan*, *Nanyue*, *Nanqu*, *Xianguan*, among other common names of this traditional art form (*Quanzhou Shi Jiao Yu Ju* & *Quanzhou Wen Hua Ju*, 2009, p. 3). However, as Singapore practices *Nanyin*, this term will be used throughout the study.

Nanyin is practiced mainly by the *Hokkiens*, a Chinese dialect group in the south-eastern part of Fujian province in China and Taiwan (United Nations Educational, Scientific and Cultural Organization, n.d., para. 1). It is sung in the Southern Min language otherwise known as the *Minnan* dialect and follows the traditional *Nanyin* score otherwise known as *Gong Che Pu* 工尺谱 (Cai, 2018). Serving as the lingua franca amongst most Chinese communities in China, Hong Kong and Taiwan, *Nanyin* was slowly brought over by immigrants to Singapore, Malaysia, Indonesia and Philippines (National Heritage Board, 2018, para. 1).

The incorporation of *Nanyin* into the Chinese culture is evident in *Fujian*, where the government has integrated it into the curriculum of all arts schools and universities. Students have the options to major in *Nanyin*, undergoing practical examinations as a prerequisite for advancing to the next level. *Nanyin* can also be found practiced in associations, where members join to participate in club activities or to pursue their hobby in *Nanyin* (Lim, 2014; Chou, 2002). To promote *Nanyin* on an international level, the Chinese government has officially recognised entities such as ‘Xiamen *Nanyin* troupe’ and ‘Quanzhou *Nanyin* ensemble’ as representatives of this traditional art form, providing financial support for their daily operations (Lim, 2014, p. 22).

In Singapore, three non-profit organisations engage in the practice of *Nanyin* and rely on grants and donations to keep these organisations running. Those interested in learning this music form have the opportunity to do so at Siong Leng Musical Association, Singapore Traditional Southern Fujian Music Society and Sheng Hong Arts Institute (Siong Leng Musical Association, 2014). While there are no specific prerequisites for joining any of these organisations, each organisation has its own vision. Sheng Hong Arts Institute focuses on educating locals in Chinese culture (Taoist Federation, n.d., p. 12, 14), the Singapore Traditional Southern Fujian Music Society serves as a space for members to practice and share their knowledge of *Nanyin* (Huang, 2010, p. 90), while Siong Leng Musical Association places a priority on outreach, education and development of *Nanyin* productions (Siong Leng Musical Association, 2015; 2017).

Various educational resources on *Nanyin* are currently available, although they may not be easily accessible. These resources cover a range of content, including *Nanyin* repertoires (Su, 2005; *Xiamen Shi Nan Yue Tuan*, 2005), introductions of instruments (*Quanzhou Shi Jiao Yu Ju*, 2009, p. 22-39; Huang, 2010) and historical studies created by *Nanyin* enthusiasts hailing from different cities of Fujian, Taiwan and Singapore (Huang, 2010; Cai, 2018; Zhuo & Lin, 1999). In recent years, particularly amidst the COVID-19 pandemic, there has been a notable increase in the presentation of *Nanyin* through video platforms and social media. Importantly, these educational resources present various aspects of *Nanyin* in distinct ways, influenced by the authors’ respective places of origin.

The preservation and transmission of *Nanyin* faces a significant challenge due to the lack of and inconsistent documentation of its learning and teaching processes. The absence of a structured record of learning methods invites misinterpretations, dilution of the form's authenticity and even face the risk of losing essential elements and traditions. The broader impact this challenge risks *Nanyin* not being appreciated or integrated into the evolving identity of Singapore. Addressing this challenge could bring about a sense of community cohesion within *Nanyin* practitioners in Singapore. It is critical not only for the vitality of *Nanyin* itself but also for the preservation of a cultural heritage within a diverse society like Singapore.

Subsequent sections of this paper will explore existing literature on this topic, offering insights into the connection between *Nanyin* and Singapore. After the literature review, the methodology section will outline the approach adopted for conducting the study. Finally, the collected data will be analysed across three key themes: the impact of Chinese culture, *Nanyin*'s teaching methodologies and temporal dynamics.

Local Identity and Culture

In exploring this broad topic, the intricate relationship between culture, traditions and learning in music becomes apparent. Singapore, a fifty-nine-year-old multicultural nation, strategically prepares for global challenges by emphasising its cultural heritage and arts education system. Government initiatives, spotlighted since the inception of the Advisory Council on Culture and the Arts (ACCA) in 1989, underscore a commitment to 'cultural reforms' (Wong, 2012, p. 234).

The formation of the National Arts Council in 1991 and National Heritage Board in 1993 were implemented in hopes of achieving (i) personal enrichment, (ii) quality of life (iii) nation- building and (iv) economic impact for the arts (Advisory Council on Culture and the Arts, 1989). It was only after the transformation in this cultural landscape that the time has come to focus on 'national identity and belonging' as reported in the Renaissance City Report (Ministry of Information, Communications and the Arts, 2000, p. 4). Despite the strategies in the Renaissance City Report, the discourse on creating a cultural identity continues. The definition of national identity in Singapore remains ambiguous. The diversity of languages, cultures and ethnicities in Singapore poses a challenge in defining a cohesive national identity for the country. If the intention of the local government was to produce one identity out of four dominant ethnic groups and the plurality of cultures residing in Singapore, Singapore loses its charm of its own 'multiculturalism' (Nur, 2017, para. 15).

Despite reports on Singapore being a 'cultural orphan' (Chan, 2003), Singapore has still produced many cultural works that made Singapore shine, showcasing its vibrant artistic landscape and heritage to the world. Late Chairman of Siong Leng Musical Association, Teng Mah Seng's search for a local identity was through newly composed *Nanyin* repertoires in the 1980s. Throughout his lifetime, he composed 300 *Nanyin* songs, each infused with innovative elements to enhance its appeal to contemporary audiences. He conveyed his perspectives through poems, when *Nanyin* was struggling to break free from colonial influences. Teng's most popular *Nanyin* piece, '东方花园' [Garden of the East] addressed various issues relevant to Singapore in the 1980s, particularly focusing on the quest for a distinct Singaporean identity. In his song, Teng delved into themes like cultural heritage, societal transformations and the struggles Singapore faced in defining its identity amidst colonial history and modernisation. His initiatives were what Chan sees as a 'Singaporean

Voice' (2003, p. 33), the collaboration between a traditional genre of music in the context of Singapore.

Due to Teng's significant contributions to Singapore's cultural landscape, he was recognised by the Singapore Ministry of Culture and awarded the Cultural Medallion Award in 1987 (Chor, 2014), a prestigious recognition of his efforts in revitalising and promoting *Nanyin* within the Singaporean context. His innovative approach of composing *Nanyin* repertoires not only breathed new life into the traditional art form but also helped to establish a sense of cultural identity, earning him a stamp of acknowledgement for his contributions. Teng's piece 东方花园, subsequently got selected as part of the repertoire for the arts education programme in primary and secondary schools (Chor, 2014), in line with the local music curriculum emphasis on understanding Asian musical traditions as a reflection of our multicultural context (Ministry of Education Singapore, 2019). This emphasis further highlights the significance of comprehending the transmission and practice of music within different cultural communities. Interestingly, this approach finds its relevance to *Nanyin* pedagogy, where these concepts share similarities in the learning and teaching of the art form.

Research Methodology

In order to effectively investigate the development of *Nanyin* education in Singapore, the methodology and design employed over this course of study adopted an ethnographic approach. In alignment with Ingold's perspective, this approach involves a detailed and sensitively honed description of the lives of individuals beyond the researchers themselves, obtained through observation and first-hand experience (2008, p. 69). The research methodology employed in this study aimed to identify two crucial aspects, firstly the pedagogical frameworks of *Nanyin*, and secondly, the social conditions on which these frameworks were built.

This study incorporated Rice's research model from "Toward the remodelling of ethnomusicology" (1987) as a guiding framework. By adapting and revising both Rice's model and the Merriam model, interview questions were carefully crafted at three analytic levels, fostering a comprehensive understanding of "music in culture" (Rice, 1987, p. 470). Rice emphasised exploring music in terms of its historical construction, social maintenance, and individual experiences (p. 475).

Interviews were held with *Nanyin* practitioners from China, Taiwan, Indonesia and Singapore, primarily in Mandarin and English. The participants comprised 8 *Nanyin* experts and teachers, as well as 8 students affiliated with various organisations, educational institutions and governmental bodies. To be eligible for participation in the study, experts were required to possess at minimum of 40 years of experience, teachers at least 20 years, and students at least 5 years in *Nanyin*, ensuring the authenticity and depth of their perspectives. In particular, the participants included 8 from China, 3 from Singapore, 3 from Taiwan, and 2 from Indonesia.

The study utilised narrative inquiry to code and analyse interview results, linking specific concepts to observed phenomena. This approach involves a focus on intersubjectivity, emphasising shared experiences and meanings shaped by social contexts. The study includes stages such as categorising data, self-reflexivity and comparing results with *Nanyin* practitioners in Singapore, providing diverse perspectives.

The subjective nature of data generalisation is acknowledged as a limitation. For transparency in approach, it is emphasised that “autoethnographies must not only use methodological tools and research literature to analyse the experience but also, consider how others may experience similar epiphanies, to make characteristics of a culture that is familiar for both insiders and outsiders.” (Ellis, Adams & Bochner, 2011, p. 276). To achieve this objective, the study involved comparing and contrasting personal experiences with existing research and examining relevant cultural artefacts of *Nanyin*.

An additional challenge is associated with the language utilised in *Nanyin* which is predominantly *Minnan* dialect, reflecting its roots in the Hokkien community. Most of *Nanyin*'s literature is written in Mandarin, and most of the interviews with practitioners were conducted in the same language, with the occasional use of the *Minnan* dialect. Translation challenges arise, especially with specific musical terms unique to *Nanyin*, which may impact the accurate transmission of the genre's nuances in English. Concerns are raised about the potential alteration of the original message during translation, in line with Maclean's observation that, “words in another language and context may impose another conceptual scheme on their thoughts.” (2007, p. 784). To address this concern, the study has to establish clear definitions and distinguish the differences between the original terms and corresponding words in the same language.

Influence of Chinese Culture

The analysis of the collected data has identified recurring themes, namely, the impact of Chinese culture on *Nanyin*, the widespread reliance on oral traditions and the influence of time on the current learning methodologies of *Nanyin*.

The term ‘culture’ was commonly mentioned by participants, prompting an inquiry into the specific definition of the cultural influence on *Nanyin*. The sociological perspective on *Nanyin* strongly suggests that it has been shaped by the fundamental teachings of Confucianism. The emphasis on core Confucian philosophies such as *Ren* 仁 [benevolence and compassion], *Li* 礼 [Ritual Propriety] and *Xiao* 孝 [filial piety] is evident throughout the learning practices of *Nanyin*.

Learning *Nanyin* entails a process where aspiring students must seek out a willing teacher. However, gaining acknowledgement as a student carries a specific set of expectations. Beyond musical aptitude, prospective students are required to embody the principle of “*ZuoRen* 做人” (Lin, Personal Communication, November 10, 2018). This translates to a way of behaving that is considered virtuous or commendable in the cultural and social context. It encompasses qualities such as humility, filial piety and respect which are all important prerequisites for a teacher's acceptance of a student. Within the framework of most traditional arts genre, this relationship aligns with the concept of *ShiTuZhi* 师徒之, also known as the Master-Disciple system (Lim, 2014, p. 249). Affirmed by participants like Cai, Wang, Hong, Chen and Wu (Personal Communications, September 8, 2018), the Master-Disciple system is a reciprocal exchange, resembling a parent-child relationship. This involves the sharing of knowledge, skills and physical space.

In his interviews, Wang extensively discussed his commitment to embodying the values he identified as part of the Chinese culture, or in mandarin, *HuaRenWenHua* 华人文化. He clarified his refusal to accept financial gains in return for a *Nanyin* performance, despite

facing challenging living conditions in the past (Personal communications, June 24, 2018). Upon delving into scholarly material, particularly Ames and Hershock's book on Confucianism (2018), it became apparent that Wang's intended meaning of Chinese culture encompassed the practice of *Lian* 廉, equated to having integrity (Nguyen, 2018, p. 144). Nguyen defined integrity as refraining from desiring status or wealth, steering clear of a comfortable life, and rejecting flattery from others. The only acceptable eagerness lies in the pursuit of studying, working, and making progress (p. 145).

The customary observance of *Nanyin*, such as serving tea to a teacher or participating in a tea ceremony, as acknowledged by Hong, Cai, Wu and Lin (Personal communications, September 8, 2018) is evident as a demonstration of respect. Supported by Bamana, the act of serving tea serves as an expression of gratitude, respect, or apology (2015, p. 205). While tea and its ceremonies originated in China, several other East Asian countries including Japan and Korea has its own historical and cultural connection to tea. In the fifteenth century, Japan regarded tea as a form of aesthetic religion, now referred to as 'Teaism' (Okakura, 1906, p. 1). Teaism was not merely a method of drinking or making tea but founded on the "adoration of the beautiful among the sordid facts of every existence... a worship of the imperfect, an attempt to accomplish something possible..." (Ibid). In Japan, the art of tea encompasses beauty, where the Japanese take pride in exquisite traditional arts and crafts such as tea bowls, flowers, hanging scrolls, and cup settlements, all integral to a tea ceremony (Murai, 2012, p. 70). The considerable effort required to prepare a tea ceremony is perceived as an expression of sincerity, interpreting the act of serving tea as a form of respect. Comparable customs exist in Confucianism, *Cheng* 诚, which also means whole-hearted engagement, allows individuals to demonstrate commitment, which is why *Nanyin* students serve tea to their teachers.

The cultural revolution in 1966 played a role in the decline in the Confucian practices today. Initiated by Mao Zedong, the Cultural Revolution aimed to consolidate power and eliminate perceived capitalist influences in China. Mao asserted the necessity of this revolution to purge China of the 'four olds', namely old culture, old customs, old habits and old ideas (Ho, 2011, p. 690). all of which were integral elements of the Chinese culture. Consequently, Confucian practices, including tea ceremonies were gradually suppressed. Confucianism, with no specific methods for learning or teaching, was more about its self-cultivation and the facilitation of cultural identity (Lee, 2018, p. 36).

Delving into another facet of cultural practices, the bi-annual prayers to *Nanyin* deity, *MengChang LangJun* 孟昶郎君 stand out as notable example frequently mentioned by interviewed participants. Revered as *Nanyin*'s patron of saint, the practice involves paying homage on the deity's birth and death anniversaries. It is believed to bless and protect individuals and groups of *Nanyin* (Ibid). While many practitioners hold firm beliefs in this tradition, scholarly sources suggest that the narrative of *MengChang* remains more of a myth (Huang, 2010, p. 108-109). Despite its specific association with *Nanyin*, the worship of deities is not confined to this tradition and is observed in various parts of the world (Lim, 2014, p. 119). The appreciation of this religious yet mental state of mind as a form of communication was evident through what Audi deemed as 'objectual belief', where it is either believing a thing to have a property or believing of a thing (2008, p. 88). Even if *MengChangLangJun* does not actually exist, assertions about them would not be true. Similarly, in other context, Berliner, an American ethnomusicologist who expounded on the Shona people of Zimbabwe believed in the worshipping of deities and spirits. He said, "[they] play an important role in the process of learning... pave the way and guide him in teaching" (1993, p. 137). Almost similar to the teaching practices of Confucius, praying to

MengChangLangJun seemed more like a human construct where practices of human behaviors and experiences facilitate in the learning of *Nanyin* through the motivation of personal beliefs. The act of offering incense and performing a *Nanyin* piece in front of the altar finds similar symbolisation to the earlier mentioned relationship of a master-disciple system.

Therefore, rituals play a dual role in not only establishing and fortifying connections but also acting as a channel for the transmission of a value system. These rituals embody implicit practices seamlessly integrated into the learning processes of *Nanyin*. Considering the substantial Chinese representation among *Nanyin* practitioners, the assimilation of practices from diverse theorists and the organic evolution of *Nanyin*'s own practices have led to a blending where distinctions gradually blur. Although these unspoken norms in *Nanyin* culture may not directly contribute to the technical prowess of a musician, there is a discernible impact on the assimilation of these rules over time, influencing the process of embracing *Nanyin* as a cultural form.

Instructional Teaching Methodology

Understanding the correlation between what participants considered the most significant musical aspects of *Nanyin* and the instructional methods employed proved to be complex. The insights derived from participants' responses suggests that a *Nanyin* musician's personal expression and the unity of the ensemble stand out as crucial elements in defining excellence in this musical tradition. Participants has also found the most effective teaching method to be the traditional approach of *Kou Chuan Xin Shou* 口传心授, in other words, oral transmission. This approach involves the direct, personal transmission of knowledge from a teacher to student through verbal communication, demonstration, and personal engagement. This preference finds support in various literature works on *Nanyin* and Chinese music genres (Chou, 2002, p. 116; Lim, 2014, p. 231; Witzleben, 1987, p. 248).

The results highlighted the intuitive and instinctive nature of personal expressions and unity. In response of inquiries regarding the grading system for *Nanyin* practical exams in schools, *Nanyin* veteran Wang Da Hao emphasized the absence of a standardised rubric. He explained that grading in *Nanyin* relies heavily on expressions, dynamism and how students 'feel' the music, making it challenging to establish fixed criteria. Wang adds, "This question is exceptionally hard to answer... Sometimes, for students who are not doing well, I will increase their grade to motivate them" (Personal communications, October 25, 2018).

This immediately raises two pivotal questions central to the investigation of this topic: firstly, how does oral tradition contribute to the development of personal expression, and secondly, how can personal expressions be objectively measured?

Wang's grading methodology may offer insight into the functioning of the *Nanyin* musical system. He suggests that *Nanyin* surpassed the limitations of conventional score sheets, emphasising the integration of personal emotions. His conception of beauty in *Nanyin* resonated with the aesthetic subjectivism advocated by the Sophists, who believed that "since man is the measure of the true and the good, he is all the more the measure of beauty" (Tatarkiewicz, 1963, p. 158). The distinctiveness of *Nanyin*, particularly its flexibility on the skill of embellishments can too, be attributed to the lack of dynamic notations or explicit signs guiding a student's performance style in a traditional *Nanyin* score, otherwise known as the *GongChiPu* 工尺谱. The design of a *GongChiPu* disallows one to be objective as the

Pythagorean's argument for aesthetic objectivity inferred that there is a need for proofs of 'Harmony', 'Proportion' and 'Number' (Ibid), which cannot be comprehended visually.

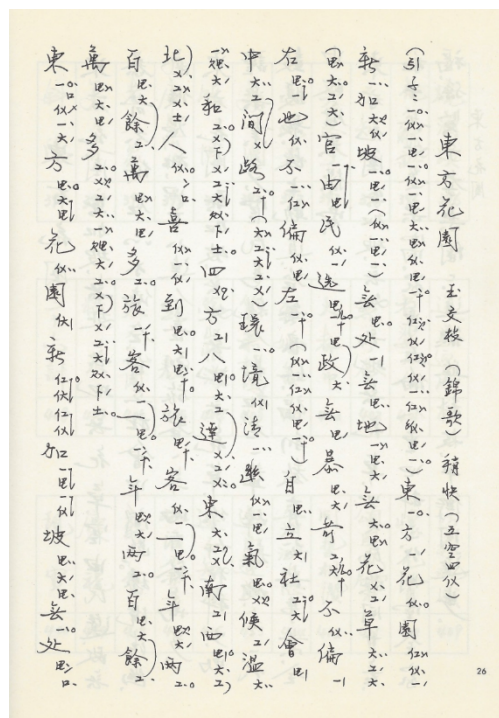


Figure 1: *Gong Chi Pu* 工尺谱 (Teng, 1982, p. 26)

Present in scores, arranged from right to left and top to bottom, are the title of the piece, a *QuPai* 曲牌 [a set of melody found across Chinese instrumental repertoires], key signature, lyrics and musical notations (*Quanzhou Shi Jiao Yu Ju & Quanzhou Wen Hua Ju*, 2009, p. 12). Scholarly works on *Nanyin* musicology have proposed that understanding the ‘presumed’ dynamics or expression of *Nanyin* can be achieved through interpreting the poems in the score (Lim, 2010, p. 61). However, mastering this requires strong language skills in mandarin and the *Minnan* dialect, along with a comprehensive study of the poems and the immersion of the Chinese history to convey the closest possible emotion through musical performance.

What captivated both the visual and auditory senses gradually became ingrained, influencing others to emulate, leading to the understanding that “there are no definite rights or wrongs in any *Nanyin* variation” (Chen, personal communications, September 8, 2018). Lin, the artistic director of Siong Leng, expressed his concerns regarding *Nanyin* students in Singapore forming their own interpretations. He emphasised that the infrequent use of dialects by Singaporean youth is detrimental to the growth of *Nanyin* in the country, stating, “Without them being able to read the main components of the *Nanyin* score, they will never be interested, let alone interpreting it” (personal communication, November 9, 2018).

Temporal Dynamics

Considering the evident support for oral traditions in the collected data, it is apparent that this method must hold inherent value in the teaching of *Nanyin*. This traditional teaching method of *Nanyin* appear to align with the approach described by ethnomusicologist Rice as a learning process involving observation and imitating, which he labelled as, ‘aural-visual-tactile’. The process is characterized by being learned but not explicitly taught (Rice, 2003, p.

65). While oral traditions have proven valuable in knowledge transmission, it is acknowledged that “there are things that cannot be readily understood” (Cai, personal communications, June 21, 2018). It has been suggested that personal expressions with the practice of imitation and rote learning have taken up a lot of time. Cai revealed, “...the young learners of *Nanyin* music have successfully picked up the skills in every aspect, except the nuances... The quality can only be attained from the quantity of accumulated time and experience” (Cai, personal communications, June 21, 2018).

Cai’s statement yields two key points. Firstly, oral tradition is not directed at instructing students in the development of personal expressions. Instead, it efficiently imparts knowledge to students through direct, face-to-face communication, presenting the teacher’s interpretations and potentially defining what constitutes perfect *Nanyin* music as shown on the musical score. Drawing on Hood’s perspective on the impact of oral traditional, he asserted that only elements such as the “continuation and development of musical instruments, traditional tuning system and scale pitches, modal practices... musical and poetic forms...” can benefit from imitation and rote (Hood, 1959, p. 202). However, there were no comparable definitions found for personal expressions or what Cai refers to as ‘nuance’. Interview participants utilised similar expressions such as ‘*Yun* 韵’ [Charm] or ‘*YunWei* 韵味’. Through careful observation, it becomes apparent that *Yun* encompasses more than the interplay of melodies, pitch, intonation, pace and ornaments. It also involves the musician’s artistic selection of transitional phrasing, influencing the essence of the music (Lim, 2014, p. 299). This explains how *Yun* is often not immediately apparent and will require refined understanding. It is the subtle details or intricacies that contribute to a more comprehensive interpretation. While the concept of *Yun* is universally acknowledged among *Nanyin* musicians, few can articulate its specific properties. Lim, drawing an analogy to cooking soup, stated, “The longer you cook, the better [the flavour] ... Those with stronger *Yun*, delve deeper into the music” (Li, 2017, para. 25).

This brings us to Cai’s second highlight point, which centers on the temporal dimensions of the learning process. Zheng echoed a similar sentiment regarding time as a pivotal factor in mastering *Nanyin*, asserting that, “Quantity will lead to quality...” (personal communications, June 26, 2018). It is recognised that learning is not a static process but rather one that evolves over time. This involves the concept of learning trajectories, that time could serve as a remedy for bridging the learning gap associated with *Yun*, a view point supported by Lin (personal communications, June 26, 2018), Cai, (personal communications, June 21, 2018) and Chen (personal communications, June 24, 2018).

In exploring the concept of time in this context, it becomes evident that its significance extends beyond the mere growth of *Nanyin* experiences. Rather, it serves as a period for students to ascertain their level of commitment and dedication required for mastering this art form. It is plausible that teachers entrust their students to discover a passion for their craft, aiming for a quality standard through what Frymier termed a demonstration of belief (1969, p. 38), rather than viewing time solely as a developer of experiences. Chen states, “... if you hope that they will reach the goal you set for them, that’s not realistic. But find one who is willing to stay committed, they will ultimately progress in their learning” (Personal communications, June 24, 2018).

Conclusion

Overall, *Nanyin* pedagogy reflects a holistic approach to music education that integrates cultural heritage, ethical values, emotional expression, and the gradual accumulation of experience. It represents a unique and rich tradition of musical learning that contributes towards the understanding of the Chinese culture and heritage, fostering a deep connection between students, teachers and the art form itself. The relationship between student to teacher and practitioner to *Nanyin* undergoes a nuanced evolution, and transforms into an unspoken emotional bond that resonates with the dynamics of the master-disciple system. This connection is further enriched by the ritualistic aspects associated with the *Nanyin* mythical figure. This finds itself in a cycle of trust, belief and interpersonal relationships. The depth of this bond extends beyond the mere transmission of musical knowledge, it becomes a holistic experience that intertwines with the practitioners' lives. The analysis highlights a learning approach grounded by the cultivation of theoretical, historical, cultural and psychological understanding integrated into its teachings. This approach lies beyond western pedagogies which often prioritises technical proficiency and theoretical knowledge over cultural context and emotional depth, enriching the education landscape with a more comprehensive understanding of *Nanyin* and its cultural significance.

With the aging *Nanyin* community, establishing a framework becomes important to prevent misinterpretation, dilution of authenticity, loss of essential traditions to promote the vitality of *Nanyin*. This paper, originally aimed at uncovering differences between countries, ultimately shifted its focus to uncovering commonalities. This shift explains that the process of teaching and learning are not isolated within national boundaries, but rather linked to broader cultural and preservation efforts. This perspective underscores the importance of understanding *Nanyin* within a global context and recognizing its significance beyond Singapore's borders.

Acknowledgements

I would like to extend my sincere gratitude to everyone who have supported me throughout this research endeavour. I am particularly thankful to Siong Leng for providing essential resources, opportunities, and education, and for patiently addressing my doubts. Their unwavering support has been invaluable to the success of my research.

Furthermore, I am deeply appreciative of my family for their constant encouragement and understanding, with special gratitude to my husband, Mingxian whose patience and support have been a pillar of strength throughout this journey. I also want to thank my 3- year- old daughter, Leia, whose presence brings immense joy and inspiration to my life.

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Exploring the Implementation of Graphic Narratives in Organic Agriculture

Wen-Huei Chou, National Yunlin University of Science and Technology, Taiwan
Yao-Fei Huang, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Organic agriculture integrates the principles of ecological friendliness and resource recycling, aiming to respect the natural environment and commit to sustainable development in the future. Through participatory observation, the survey results of this design concept are presented in a graphic narrative manner, and the complex organic agriculture design principles of the farm are concretized through visual translation to assist farmers and participating volunteers in gaining a more comprehensive understanding of the operation status of the farm. The graphic narrative showcases important information such as the use of renewable energy and organic cultivation on the farm, making the design principles of organic agriculture more clear and visible. The application of translated content not only provides a deeper understanding but also offers the possibility of future promotion and practical application in organic agriculture design.

Keywords: Graphic Narrative, Organic Agriculture, Participant Observation, Social Design

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1. Introduction

In the 21st century, humanity is facing climate change, sustainability, and environmental friendliness issues that are receiving significant attention. To seek sustainable living and adapt to climate change, organic agriculture sustainable design has become a method for exploration and learning. Many cities in Taiwan rely on agriculture as their primary economic source. Most farming practices are still traditional, often using methods that exceed the environmental capacity to increase yield, leading to unsustainable cycles, ecosystem anomalies, and health concerns for growers (Chang & Yang, 2023). Therefore, this study aims to share information on sustainable organic agriculture design through participatory observation results from the World Wide Opportunities on Organic Farms Spain (WWOOF Spain) organization, combining visual narrative texts and images.

Organic agriculture sustainable design respects natural ecosystems and life, avoiding artificial inputs such as pesticides and growth hormones, and adopting systems like crop rotation and organic fertilizers to adapt to climate change challenges (Basnet et al., 2023; Gamage et al., 2023). This study references cases from Spain, collaborating with WWOOF Spain through participatory observation. It records the period spent on farms, recognizing that sustainable organic agriculture design is an environmentally friendly system. It starts with land management, integrating necessary elements from daily life, finding operational models and relationships within the natural environment, and implementing energy recycling to sustain human life. Considering the broad age range of Taiwanese agricultural workers, from elderly farmers to second-generation young farmers, and the general public's insufficient understanding of sustainable organic agriculture design, effectively presenting related information becomes a crucial research focus.

Visual narratives have long been used to explain complex issues, creating a language and space for communication through the combination of visual narrative texts and images. This method, also used as an educational tool, provides a clearer and more intuitive way to assist information transmission. For example, visual and textual representations of cancer patients' treatment experiences serve as a channel for vulnerable medical groups to absorb information (Gurrieri, 2019). We offer a panoramic design of an organic agriculture sustainable design farm, providing an illustrative overview of the entire environment, divided into three areas. Each area describes the implementation conditions and application aspects. Despite the differences in environmental conditions for agricultural setups across countries, this study mainly shares the overall planning, resource integration and utilization, and the possibility of converting living resources into farm resources. Our research emphasizes how the design of visual and textual narratives has the potential to address global environmental issues, helping farmers or environmentally concerned groups receive new information from abroad more clearly and intuitively, thereby facilitating knowledge absorption.

2. Study Design

This study primarily explores the opportunities for using visual narratives as a means of disseminating knowledge about sustainable organic agriculture design. It is a case study that utilizes participatory observation (PO) to experience the WWOOF Spain farms. Through guided tours and teachings from the farm managers, the study observes the farm environment and the design concepts of various areas, recording these through images and notes. This includes documenting the farm's environmental characteristics, operational processes, and the interactions between people and animals.

First, the study examines the components of visual narratives, such as the design elements of visual narratives, text structuring, and composition planning. Then, it integrates the content of sustainable organic agriculture design, creating and pairing visual elements with the design, considering the combination of content expression and imagery. The study proposes the following research framework diagram:

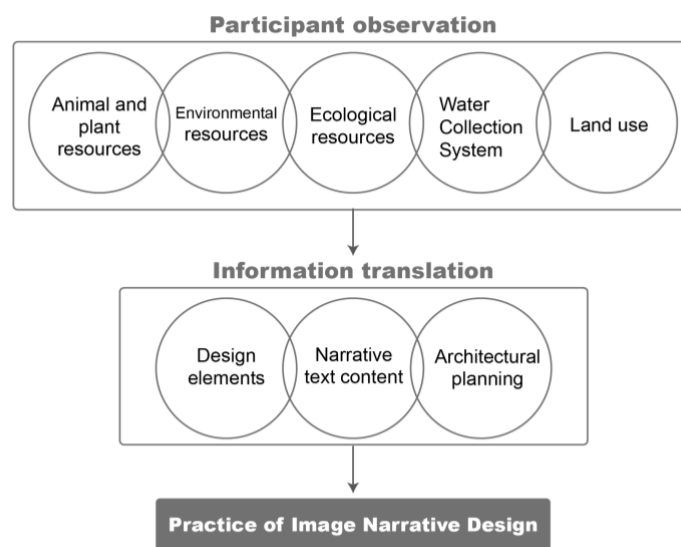


Figure 1. Research architecture diagram

3. Visual Narratives in Sustainable Organic Agriculture Design

3.1 The Relationship Between Sustainable Organic Agriculture Design and Design

In 2017, the United Nations Food and Agriculture Organization (FAO) pointed out that the current consumption of environmental resources is not optimistic, indicating a severe challenge that humanity must face in the future. As hypothesized in "Permaculture One" (Holmgren, 2020; Mollison & McNeillage, 1987), since the Industrial Revolution in the eighteenth century, humanity has made significant progress in various aspects, with booming economic development accompanied by problems of resource depletion (Ferguson & Lovell, 2014), such as extreme climate events and food shortages. With the continuous growth of the global population, resources are not infinitely available, and the environmental carrying capacity is nearing its limit. According to the United States Department of Agriculture (USDA), organic agriculture is a farming system that operates in harmony with nature, following diverse ecological natural systems. It regulates and recycles elements such as crop rotation, organic waste, and animal manure, and during the planting process, it avoids the use of artificial inputs like fertilizers, pesticides, and growth hormones to provide crops with nutrients and support their development. (Gamage et al., 2023).

Design arises in response to social needs: society creates the demand for design, and design, in turn, influences society (Liao, 2022). Design reflects contemporary issues and needs, adjusting design methods to meet these demands. Through design thinking and design frameworks, social problems can be redefined and interpreted, which can be termed as designing for society. Viewing sustainable organic agriculture design through the lens of social design, it aims to maintain a sustainable environment by integrating different

knowledge systems and promoting accessibility, interaction, and participation among various groups and cultures, becoming a universal design (Holmgren, 2020).

3.2 Participatory Observation of the Farm

Participatory observation (PO) initially emerged from anthropological research. It is a method of observing and recording the observed content, providing an opportunity to gain different insights into an organization or group. This study is conducted through "inquiry from the inside" and immersive experiences (Evered, 1981; Iacono, 2009). By engaging sensory experiences and observations, learning through participation in events, and supplementing with daily conversations, relevant information is obtained. As a participant, by engaging in the farm's daily practices over some time and becoming familiar with the overall operation of the farm (Takyi, 2015), observations are recorded objectively. Various pieces of information are integrated to investigate key design elements.

The farm's organic agriculture sustainable design system includes livestock areas, vegetable planting areas, and fruit tree planting areas. The farm's humans, animals, and plants are three indispensable elements. Animal waste and kitchen waste produced by humans, after fermentation over time, can serve as organic fertilizers for enriching the soil and providing nutrients and yield. Collected rainwater is used for irrigation on the farm. The farm achieves nearly zero waste, not only planning for the effective use of overall resources but also forming a more inclusive ecosystem service system.

The livestock area has chickens, sheep, and horses. Chickens are managed in a semi-enclosed mode, while other animals are raised in a free-range mode. The farm is located in a mountainous area where wild animals frequently appear, so for the safety of the chickens, they are released at fixed times each day. In the vegetable planting area, organic fertilizers are used in the planting process. Different plants are intercropped to provide balanced nutrients according to their different growth periods. The fruit tree planting area produces apples, pears, and other fruits for consumption and beverages. Eggs produced by chickens and vegetables and fruits grown on the farm provide nutrients needed for human life, emphasizing the integration and proper use of resources throughout the farm.

3.3 Visual Narratives and Sustainable Design in Organic Agriculture

Sustainable design in organic agriculture adapts flexibly to real-life situations and conditions, while visual narratives aid in conveying visual information, making it more vivid and engaging. This approach can be divided into two main parts: imagery and accompanying text. Through the combination of images and text (Hoffman, 2023), abstract concepts such as history, geography, environment (Menga & Davies, 2020), and advocacy issues (James, 2023) can be more easily understood, enhancing comprehension and memory of the information. Visual-based messages can transcend language and cultural barriers, making them more accessible and understandable to audiences.

Visual narratives are often used in education and promotion to explain complex concepts, interdisciplinary knowledge, and specific ideas. They are powerful tools for attracting attention and resonating with audiences, effectively conveying emotions and information. Visual narratives play a supportive role in many fields, such as local development (Bertoncin et al., 2023), education (Linardatos & Apostolou, 2023), and healthcare (Lalanda, 2022), providing various influential and expressive methods.

Through visual narratives, a clearer and more vivid storytelling experience is provided, depicting interactions within ecosystems, the application of sustainable farming techniques, soil conservation, and water resource management. This enhances the audience's awareness and understanding of sustainable design in organic agriculture.

4. Design Process and Results

Based on the content from the participatory observation, the entire farm is divided into three areas, each with a different focus. Before creating visual narrative illustrations, the content and visual elements of the narrative are established and planned. These include the animal husbandry area, the vegetable planting area, and the fruit tree planting area. The functional visual planning content for each area is as follows: (1) Animal Rearing Area: This section describes the method of raising chickens on the farm. The chickens have a large area to move around, with a coop provided as a place for them to lay eggs. This showcases the connection between the chickens, the land, and humans, highlighting the interaction within the ecosystem. Finally, it presents the process of water resource collection and utilization, explaining the importance of water resources. (2) Vegetable Growing Area: This section explains the staggered mixed planting method of vegetables and the sources of fertilizer used in the planting process, including kitchen waste and animal manure. It integrates the use of human resources, animal resources, and water resources. (3) Fruit Tree Planting Area: This section presents the method of planting fruit trees and the practical uses of the harvested fruits. It highlights the role of fruit trees in the ecosystem and the nutritional benefits of their fruits.

Plan the layout of each area in the visual narrative design, recording the observed elements: (1) Animal Rearing Area: This should include elements such as the chicken coop, chickens, and the water collection area. (2) Vegetable Growing Area: This needs to show the use of kitchen waste as fertilizer and the planting methods. (3) Fruit Tree Planting Area: This should provide the method of planting fruit trees. Design the narrative text to correspond with the content and operational processes required for each area. The detailed planning is as follows.

Table 1: Elements of Visual Narrative and Text Design

Image elements	Corresponding narrative text
1 Animal Rearing Area - Chicken Coop and Flock, Water Storage System	<p>This area primarily raises chickens, with the farm also housing two sheep and a horse. The animals' excrement can be used to enrich the soil with nutrients.</p> <ul style="list-style-type: none"> (1) Chickens produce eggs, which can propagate to the next generation. When there are sufficient eggs, they can also serve as food for humans. (2) The excrement from the chickens can be used to enrich the soil with nutrients. (3) Given that the farm is located in a rich ecological environment, a semi-enclosed method is adopted. Chickens are released at fixed times daily to avoid attacks from wild animals. (4) The open-air water collection pool can collect rainwater and dew, making good use of water resources for farm maintenance.

2 Vegetable Cultivation Area - Utilization of Kitchen Waste, Planting Methods	<p>On the hillside with abundant sunlight, a variety of vegetables are cultivated for self-sufficiency.</p> <ol style="list-style-type: none"> (1) Staggered Mixed Planting: Vegetables are grown using a staggered mixed planting method to balance nutrient requirements for optimal growth. (2) Utilization of Kitchen Waste and Animal Manure: Kitchen waste is composted to become fertilizer for the soil. Additionally, animal excrement serves as nutrients for the farm's soil. (3) Water Resource Utilization: Water collected in reservoirs is used as an irrigation source for the crops.
3 Fruit Tree Planting Area - Mixed Planting of Fruit Trees, Land Use	<p>In the fruit tree planting area, mixed planting is adopted to balance the nutrient requirements of plants and make efficient use of farm space.</p> <ol style="list-style-type: none"> (1) Fruit trees are planted in a mixed arrangement to optimize nutrient utilization and maximize the use of available agricultural land. (2) Beyond Direct Consumption, the production of Delicious Juices.

Corresponding to the preceding Table of Elements of Visual Narrative and Text Design, first present an overview of the entire farm operation using an aerial view of the farm (Figure 2). Show the locations of the three areas within the farm and provide descriptions. Then, use detailed area maps accompanied by dialogue box text to explain the important narratives of each area's operation (Figure 3 to Figure 5).

Our world is grappling with the challenges of environmental change, including extreme weather patterns that result in both excessive rainfall and drought (He, 2020), profoundly impacting agriculture. Taiwan, too, faces a critical situation that threatens food security. In this context, the importance of sustainable organic agriculture design is underscored. By adopting this model and strategically managing daily resources, it becomes possible to mitigate or enhance excess soil moisture in farmland, thereby influencing agricultural productivity (Furtak, 2023). Rainwater collection tank systems are pivotal in unstable climate conditions, providing crucial water sources for crops. Moreover, through practices such as recycling household kitchen waste and animal manure, maintaining soil nutrients, and fostering soil fertility without resorting to chemical fertilizers and pesticides, significant strides can be made in reducing environmental degradation, enhancing soil health, and managing water resources. These efforts also contribute to mitigating greenhouse gas emissions (Ahmed, 2023), safeguarding ecosystems, and embracing measures for ecological diversity protection, ultimately bolstering ecosystem resilience. Thus, through the use of visual and textual narratives, the principles and strategic plans of sustainable organic agriculture are conveyed, facilitating the dissemination of information and knowledge to empower the public in addressing the challenges posed by global environmental change.



Figure 2. WWOOF Spain Organic Agriculture Sustainable Design - Overview of the Farm

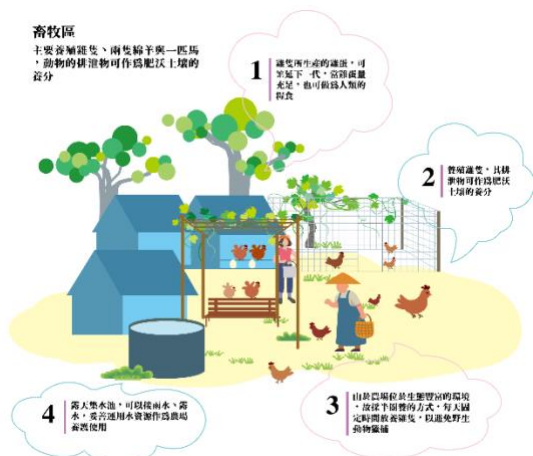


Figure 3. Livestock Area - Description of Animal Rearing Practices, Utilization of Animal By-products, and Management of Recycled Water Resources



Figure 4. Vegetable Cultivation Area - Explanation of Vegetable Planting Methods, Utilization of Animal Resources, and Management of Irrigation Water Sources



Figure 5. Fruit Tree Planting Area - Explanation of Fruit Tree Planting and Utilization Methods

5. Conclusion and Recommendations

This research focuses on the sustainable design of organic agriculture, emphasizing its fundamental philosophy of respecting nature and seeking straightforward, sustainable solutions. This approach not only applies to agriculture but also serves as a holistic framework integrating life's essential needs. Through participatory observation, we have gained profound insights into the practical application of sustainable design in organic agriculture. By dividing the farm into distinct functional zones and employing visual narratives, we illustrate its key aspects, such as the synergistic relationships between plants and animals, the recycling of kitchen waste, and the versatile use of land. These efforts ensure that our findings accurately reflect the research data while effectively conveying the principles of sustainable organic agriculture design to diverse age groups through visual storytelling, thereby enhancing their capacity to address challenges like climate change and food security.

Looking forward, we aspire to integrate visual storytelling with technology or social media to offer more interactive and dynamic formats. Through educational and promotional initiatives, our goal is to broaden the dissemination of sustainable design concepts in organic agriculture, promoting sustainable development and the adoption of sustainable lifestyles. This involves developing digital platforms or applications that deliver compelling and interactive educational content, fostering societal awareness and engagement in the sustainable design of organic agriculture.

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Contact email: d11130003@gmail.yuntech.edu.tw

***More Than Just a Corridor: A Case Study of the Spatial Transformation of
“The Artistic Gallery” Exhibition***

Po-Jo Lai, National Yunlin University of Science and Technology, Taiwan
Shyh Huei Hwang, National Yunlin University of Science and Technology, Taiwan
Chin-Liang Ho, Taiwan Hakka Culture Development Center, Taiwan
Mei-Yen Chen, Taiwan Hakka Culture Development Center, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This study analyzes “The Artistic Gallery” at the Taiwan Hakka Museum. This space was initially designed as a simple corridor for people to pass through while using the elevator. Leveraging the unique narrow layout of this idle space and the concept of “art-infused space,” it has been transformed into a small, exquisite, and aesthetically pleasing exhibition space. The narrow corridor adopts the “Hakka Window” concept with multiple perspectives to present the diverse aspects of Hakka life from a cultural and artistic perspective. The present study analyzes three of the exhibitions presented in The Artistic Gallery up to the present, which serve as the research cases with the following objectives: (1) To analyze the methods of cultural translation in the gallery's exhibitions to gain an in-depth understanding of how the exhibitions promote Hakka culture; (2) To analyze the forms of stylistic practices in the gallery's exhibitions to explore the role of exhibition styles in cultural exchange and understanding. This study proposes collaboration with local artists across various fields, setting diverse exhibition themes such as Hakka poetry, indigo dyeing, and digital imagery. Combining artistic works and an integrative approach, this study presents a series of exhibitions infused with local terroir, giving the corridor a fresh and meaningful identity. This enriches the essence of Hakka culture and reinforces the gallery's role as a space for cultural communication.

Keywords: Space Activation, Exhibition, Hakka, Cultural Translation, Stylistic Practices

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1. Introduction

“The Artistic Gallery” is located on the 2nd floor of the Taiwan Hakka Museum and falls under the jurisdiction of the Hakka Affairs Council. Its predecessor was a corridor passed by visitors taking the elevator, with a total length of approximately 18.49 meters, a total width of about 2.37 meters, and a floor-to-ceiling height of approximately 2.28 meters. The total area is approximately 13.26 ping, forming a narrow, elongated space.

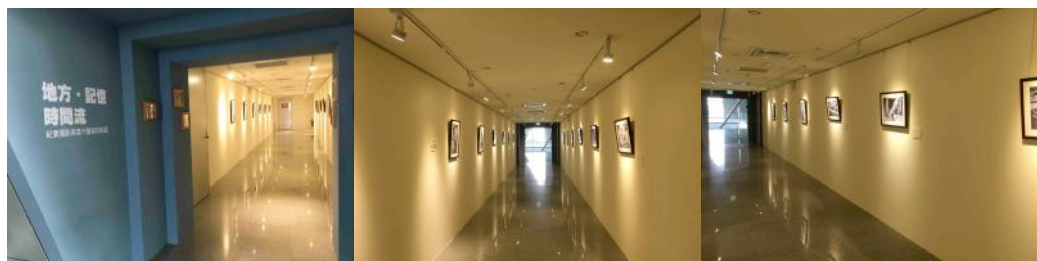


Figure 1: "The Artistic Gallery" is a narrow, elongated space

The Artistic Gallery has adopted the “Hakka Window” exhibition concept since 2016 while fully utilizing its narrow and elongated characteristics. The gallery is used in a multi-perspective manner, transforming the corridor into not only a passage for information flow but also a rich and diverse cultural display area.

This study takes three exhibitions launched by The Artistic Gallery between 2017 and 2018 as the research cases. These exhibitions include: “Poet in Hakka Villages – Hakka Poetry Context Exhibition,” “Elegance Indigo and Love – Plant-Based Indigo Dyeing Exhibition,” and “Reminiscing about Old Mountain Lines – Digital Archive Old Railroad Photos Exhibition,” as detailed in Table 1.

Order	Exhibition Title	Presented Theme	Duration
1	Poet in Hakka Villages – Hakka Poetry Context Exhibition	Hakka poetry	2017.06.03-2017.09.10
2	Elegance Indigo and Longing – Plant-Based Indigo Dyeing Exhibition	Indigo dyeing	2017.09.23-2018.01.07
3	Reminiscing about Old Mountain Line – Digital Archive Old Railroad Photos Exhibition	Digital imaging	2018.05.17-2018.08.20

Table 1: Artistic Gallery Exhibition Planning (2017 to 2018)

Source: Compiled by this study

Entering the “Hakka Window” artistic domain extends from the imagery of the artwork, whether looking from the outside in or the inside out. The goal is that viewers capture the unique impressions of Hakka culture, further understanding and immersing themselves in its diversity.

1.1 Introduction of the Research Cases

(1) Poet in Hakka Villages – Hakka Poetry Context Exhibition

Principal Yi-Fan Chiu of Nanzhuang Elementary School in Miaoli possesses a multifaceted identity as a Hakka poet. He is dedicated to promoting and preserving the Hakka mother tongue.

In the exhibition, Chiu begins with the thematic poem “Poet in Hakka Villages (客庄寫詩仔)” and presents eight Hakka poems, encompassing four about food (“Sung Coi - Delivering Vegetables (送菜),” “Da` Deu Xi - Meal Gathering and Chatting (打門敘),” “Zung⁵⁵ E³¹ - Zongzi (粽子),” “Qi` Ba` - Sticky Rice Balls (粢粑),” and four capturing natural scenery (“Tien` Kiu` Koi` Fa` - Field Covered in Flowers (田坵開花),” “Qim` Id² Ge Zong` Ha - Seeking for a Village (尋一個庄下),” “Tu¹¹ Tung¹¹ Fa²⁴ Ha Ge Sii²⁴ Ngiam⁵⁵ - Remembrance Beneath Tung Blossoms (油桐花下个思念),” “Ca¹¹ Tin¹¹ Ha - Under the Tea Pavilion (茶亭下)”. Chiu collaborated with five calligraphy masters to showcase diverse brushstroke techniques, emphasizing the rich emotional variations within the poems. Each poem is accompanied by hand-drawn illustrations in a distinctive style. This offers viewers an immersive experience in the fusion of Hakka poetry and Chinese calligraphy, creating an artistic ambiance within the corridor.

(2) Elegance Indigo and Longing – Plant-Based Indigo Dyeing Exhibition

The evolution of indigo dyeing in Taiwan goes beyond traditional daily needs while advancing toward environmentally-friendly production processes. This transformation presents aesthetic value for appreciation and reveals the essence of creative aesthetics in the daily lives of ordinary people.

The exhibition includes the exquisite plant-based indigo dyeing creations offered by Ms. Hou-Lan Xie and Ms. Hui-Chen Chang, accomplished indigo dyeing artists from Miaoli. Their work vividly documents the life, emotions, and environment of Hakka villages. These works lead the audience to experience the textures and warmth embedded in them, continuously preserving the essence of Hakka aesthetics.

(3) Reminiscing about Old Mountain Lines – Digital Archive Old Railroad Photos Exhibition

Taiwan's “Old Mountain Line” has the potential to become a UNESCO World Heritage site. Trains depart from Sanyi Station, passing through Shengxing Station, Tai'an Old Station, Longteng Broken Bridge, Liyu Tan Bridge, Da'anxi Bridge, and numerous tunnels. With majestic terrain and ever-changing landscapes, the 'Old Mountain Line' showcases remarkable scenery. In the development of railways and in terms of cultural and historical significance in Taiwan, the 'Old Mountain Line' holds an irreplaceable position.

The exhibition primarily draws on digital archives from the Taiwan Hakka Culture Development Center of the Hakka Affairs Council, featuring vintage photographs centered on platforms, stations, and trains. It presents a series of black and white photos capturing the former railway stations along the Old Mountain Line in locations such as Shengxing, Sanyi, and Tai'an, dating back several decades. The exhibition area incorporates elements of historical train stations and platforms, creating a nostalgic atmosphere. It seamlessly integrates Hakka nursery rhymes and literature, guiding viewers to explore the stories behind each image.

1.2 Research Purpose

- (1) To analyze the cultural translation of The Artistic Gallery's exhibits while exploring their impact on promoting Hakka culture.
- (2) To analyze the stylistic practices of the exhibition space in The Artistic Gallery while investigating the role of exhibition style in cultural exchange and understanding.

2. Literature Review

2.1 Space Activation

Chao-Ching Fu (2001) emphasized the necessity of clarifying commonly confused terms such as “activation,” “regeneration,” and “reuse.” Typically, “activation” involves practical action that transforms a building's passive state into an active one. “Regeneration” represents a distinct goal to achieve the expectation of rejuvenating a building. On the other hand, “reuse” requires specific implementation through design strategies, leading to a comprehensive transformation and renewal of a building.

In other words, by employing specific cultural activities, a space is “activated,” allowing the area to manifest the benefits and values of “regeneration” while simultaneously fulfilling diverse functions. This necessitates long-term, comprehensive planning and execution, creating new cultural venues to achieve an overall enhancement of societal value, accomplishing the “reuse” of the space.

Space reuse requires clear positioning and direction to achieve genuine spatial activation, ensuring that a site's spatial resources are effectively utilized. Man-Hua Chu (2005) explicitly defined “idle space reuse” as a compound term comprising three main keywords: “idle,” “space,” and “reuse.” Furthermore, “idle space reuse” activates space as a strategy to prevent space from remaining idle. Specifically, this proposal can only be meaningful when implemented in the context of continuous, sustainable transformation.

2.2 Cultural Translation

Chen-Gyi Chang (2011) suggests that the transformation of symbols enables things to be expressed with the same meaning or imagery. This transformation process is referred to as symbol translation. Its methods include variations in elements and the interchange of forms between different components. The interpretation of symbols also involves a deeper process of meaning, and its rhetorical effects vary. Cultural symbols can be seen as representing cultural codes. Through the logical construction of the language system, the use and capabilities of symbolic language can be enhanced (Kuei-To Wang, 2005).

Hung-Jen Yang (2011) indicates that “cultural translation” refers to expressing the interests of others in one's familiar language among people with different interests and orientations. This concept aims to facilitate mutual understanding of actions and interests between individuals who prioritize “boundary connections” and those who focus on “social reform,” thereby enabling smooth communication and collaboration. As such, individuals can maintain their boundaries while using external stimuli to change their internal states. Cultural translation can help people with different orientations within a community collaborate, working together to achieve larger goals.

3. Research Method

This study adopted a qualitative research method. First, the relevant literature on “space activation” and “cultural translation” was organized using the “literature analysis method.” Three exhibitions organized by The Artistic Gallery from 2017 to 2018 were selected as case studies for further investigation.

As an internal staff member of the Taiwan Hakka Museum, the researcher actively participated in the museum's field while observing and engaging in the curation process of the three exhibitions. The researcher actively participated in related activities to gain a deeper understanding of their experiences and perspectives, providing rich insight and data for analysis.

4. Research Result Analysis

Cultural translation is the process of transforming cultural content into a form that is understandable within another culture. This study examined three exhibitions. We explored how artists, through diverse media and themes, transform the unique elements of Hakka culture into visual art. Through translation, the study aims to gain a deeper understanding and appreciation of the rich significance of Hakka culture while exploring dialogue and connections within the field of visual art.

4.1 The Cultural Translation of The Artistic Gallery's Exhibition Works

(1) Poet in Hakka Villages – Hakka Poetry Context Exhibition

Deeply rooted in Hakka sentiments, the poet Yi-Fan Chiu expresses a profound longing for the locals and a deep attachment to his hometown. Through writing in the Hakka language, he is dedicated to preserving Hakka from the brink of extinction.

“Sung Coi - Delivering Vegetables (送菜)” depicts the emotional connection among neighbors in the Hakka community, sharing culinary delights, homemade sticky rice cakes, and pickled vegetables. It highlights the camaraderie within the village. “Da’ Deu Xi - Meal Gathering and Chatting (打鬥敘)” portrays a joyous gathering where people share and engage in lively conversations, creating a festive gathering that fosters emotional connections. Recalling the delicious “Zung⁵⁵ E³¹ - Zongzi (粽子)” wrapped by my mother, brimming with gratitude for her hard work, completes the warmth of the family. “Qi’ Ba’ - Sticky Rice Balls (糰粿)” are indispensable sticky rice cakes served at Hakka weddings, funerals, and celebrations, symbolizing the transition from individual scattered elements to collective cohesion. “Tien’ Kiu’ Koi’ Fa’ - Field Covered in Flowers (田畝開花)” describes the fallow fields transformed into a tourist's garden of blooming flowers. However, it also serves as a reminder that the intentions of the garden's owner remain unknown to others. “Qim’ Id² Ge Zong’ Ha - Seeking a Village (尋一個庄下)” conveys reflections on environmental degradation and weakening human relationships, searching for a self-sufficient, labor-enjoying life. “Iu¹¹ Tung¹¹ Fa²⁴ Ha Ge Sii²⁴ Ngiam⁵⁵ - Remembrance Beneath Tung Blossoms (油桐花下个思念)” uses the snowy white tung blossoms as a symbol of Hakka communities in the mountains and forests. It illuminates a bright present and future. “Ca¹¹ Tin¹¹ Ha - Under the Tea Pavilion (茶亭下)” recalls the diminishing presence of tea pavilions, now transformed into places for people to rest and seek shade. It leaves a lingering fragrance of tea that is hard to forget.

“Poet in Hakka Villages – Hakka Poetry Context Exhibition” is based on Hakka poetry, depicting the people, scenes, and daily life in Hakka villages. It aims to evoke a sense of care for local emotion, life, and the Hakka mother tongue, transforming abundant hometown sentiments into a yearning and love for Hakka villages.

(2) Elegance Indigo and Longing – Plant-Based Indigo Dyeing Exhibition

The 23 creations presented by indigo dye artisan Hou-Lan Xie emphasize the skillful integration of Hakka characteristics into the indigo dye craft while prioritizing a sense of modern design. These works showcase artistic expression while also reflecting the artist's profound care for the cultural heritage of her hometown. One of the pieces, titled “Dragon Pattern,” draws inspiration from the “The Miaoli Bomb Dragon” culture. It is the nation's first Hakka indigo-dyed dragon motif artwork, presenting a concrete image of dragon scales while preserving the distinctive characteristics of handcrafted production. Creations such as clutches, envelope clutches, coin purses, frame bags, crossbody bags, shoulder bags, mirror cases, and chest flowers cleverly combine indigo dye with metal accessories. This showcases the integration of craft aesthetics into daily life, embodying the concept of heritage while adding a contemporary sense of beauty.

Hui-Chen Chang's exquisite artisanship is showcased in her ten pieces, highlighting the fundamental and diverse indigo dye pattern techniques. Each piece reveals its unique and varied artistic style. Among them, the piece titled “Blooming” vividly portrays the beautiful scene of flowers unfolding through various shades of blue, white, and other colors. It presents blooming flowers and allows the viewer to experience a mood full of hope and vibrant colors. Additionally, the piece titled “Dots” uses points to form lines and lines to compose surfaces, emphasizing the unique value of each dot. It underscores the importance of doing one's part well while creating a harmonious atmosphere. Hui-Chen Chang showcases outstanding artisanship through these works while emphasizing emotional expression. She imparts profound meaning to each piece, transforming them into positive philosophical reflections.

Through the process of cultural translation, these two artisans have incorporated indigo dyeing techniques into their creations. This is not only a translation on the technical level but also a transformation of the essence of traditional artisanship into the language of contemporary art. This type of translation is a continuation of artisan techniques and a reinterpretation of cultural values. The artwork presents patterns while encapsulating cultural symbols and emotional resonance. For the Hakka people, indigo dyeing is a unique and precious craft. Clothing dyed with indigo possesses special resistance to dirt and wear and also reflects the physical and intellectual efforts required during the creation process. It symbolizes the Hakka people's spirit of “suffering hardship and persevering in toil.” The unique indigo dyeing craft, showcased in the “Elegance Indigo and Longing – Plant-Based Indigo Dyeing Exhibition,” transforms into contemporary vitality. It integrates indigo dyeing into daily life, creating a new style of wearable aesthetics.

(3) Reminiscing Old Mountain Lines – Digital Archive Old Railroad Photos Exhibition

The “Old Mountain Line” is a cultural attraction in Miaoli, rich in nostalgic railway charm and abundant historical memories. It is also a must-visit scenic spot for tourists.



The works in this exhibition primarily feature authorized vintage photographs from the digital collection of Hakka photographers from the Taiwan Hakka Culture Development Center. The collection includes a series of black-and-white images capturing the former railway stations along the Old Mountain Line. By incorporating design elements such as platforms, stations, and trains, the exhibition creates an atmosphere reminiscent of being in a foreign land. The meticulous presentation of archived photos delicately conveys the homesickness embedded in railway culture.

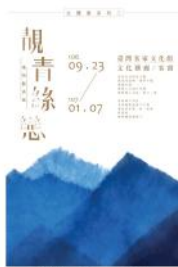

Each vintage photograph is like a window to the past, offering a glimpse into the scenes along the Old Mountain Line in days past. The train slowly enters the station; hurried figures pass by on the platform; familiar station names – all of these are traces of history. In the exhibition, railway culture becomes a profound dialogue between the audience and a sense of homesickness.



The “Reminiscing about Old Mountain Lines” exhibition showcases the precious memories associated with trains by connecting places, people, objects, and information. Together, they undergo the passage of time, forming a collective experience. Each fleeting encounter with the train is ever-changing, much like rapidly passing landscapes in time. This elusive sentiment is ingeniously transformed into a deep longing for one's hometown.


4.2 The Stylistic Practices of the Exhibition Space in The Artistic Gallery

This study systematically analyzed three exhibitions. It deconstructed their stylistic practices, including “spatial layout” configuration, “exhibit display” arrangement, “visual presentation” rendering, and “integration of reality and illusion” techniques while applying a “contextual setting.” Detailed descriptions are provided in Table 2 below.

Exhibition Title		Poet in Hakka Villages – Hakka Poetry Context Exhibition	Main Visual	
Presented Theme		Hakka Poetry		
Exhibition Area Photos				
Stylistic Practices	Spatial Layout	To accommodate the narrow, elongated space, Hakka poems are presented in various calligraphic styles. Supplementary design elements and images are positioned on exhibition walls on both sides.		
	Exhibit Display	To showcase Hakka poetry through Chinese calligraphy, four pieces are displayed on each side of the exhibition walls, left and right.		

	Visual Presentation	To complement the theme of eight Hakka poems, hand-drawn illustrations depict scenes such as a Grandma carrying her grandchild to share and exchange food with relatives, joyful moments during meal gathering and chatting, a mother preparing traditional Hakka Zongzi, collaborative efforts in making sticky rice balls, moments relaxing under the tea pavilion, a snow-like flurry of tung blossoms, the busy life in the fields during the farming season, and visitors cycling through the fields. These design elements highlight the cultural and lifestyle imagery of Hakka communities.		
	Integration of Reality and Illusion	Using illustrative elements for flat printing and production, the images create a sense of depth between exhibits and illustrations. For example, in conjunction with real exhibits, pairing the poem “Zung ⁵⁵ E ³¹ - Zongzi (粽子)” with a string of zongzi as three-dimensional decoration and combining multi-layered display boards creates a spatial three-dimensional effect. To provide a more immersive experience, a navigation QR code is included, linking to pages with Chinese character annotations, guiding viewers to understand Hakka phonetics and learn the Hakka language.		
	Contextual Setting	The exhibition commences with Hakka poetry as its thematic opening, guiding visitors through the display. Hakka poems, written in calligraphy, are combined with hand-drawn illustrations in flat printing. Using three-dimensional paper-layered boards adds depth to the space, creating a three-dimensional atmosphere that depicts the cultural imagery of Hakka people surrounded by their culinary delights and natural landscapes. The setting evokes a warm, simple ambiance, immersing the audience in the rich, poetic Hakka culture.		
Exhibition Title	Elegance Indigo and Longing – Plant-Based Indigo Dyeing Exhibition		Main Visual	
Presented Theme	Indigo Dyeing			
Exhibition Area Photos				

				
Stylistic Practices	Spatial Layout	To adapt to the narrow, elongated space, indigo-dyed works are presented by framing or placing them inside cabinets. Supplementary design elements and images are displayed on exhibition walls on both sides, while related props are positioned in the corner at the rear end.		
	Exhibit Display	Indigo-dyed works are framed or placed on acrylic display shelves and wooden exhibition cabinets, closely adhering to both sides of the walls.		
	Visual Presentation	Aligned with the theme of indigo-dyeing artisanship, hand-drawn illustrations depict dyeing techniques, hand-harvested plant-based dye materials, step-by-step dyeing processes, and the presentation of finished products. These design elements convey a visual record of the indigo-dyeing lifestyle and environment.		
	Integration of Reality and Illusion	Using illustrative elements for flat printing and production creates a sense of depth between the exhibits and illustrations. Combined with actual exhibits, incorporating multi-layered display panels as three-dimensional decorations enhances the overall spatial experience. For example, pairing an indigo-dyed curtain with a window display panel featuring a perspective effect creates a three-dimensional ambiance within the space.		
	Contextual Setting	The exhibition begins with Hakka poetry as the thematic opening, guiding visitors through the display. Diverse indigo-dyed works are seamlessly integrated with hand-drawn illustrations in flat printing. The use of three-dimensional paper-layered boards adds depth to the space. This transformation of the imagery of traditional labor into contemporary aesthetics presents a rich array of indigo-dyeing techniques, allowing viewers to experience the diversity and contemporary vitality of art.		
Exhibition Title		Reminiscing about Old Mountain Lines – Digital Archive Old Railroad Photos Exhibition	Main Visual	
Presented Theme		Digital Imagery		

Exhibition Area Photos		
Stylistic Practices	Spatial Layout	To accommodate the narrow, elongated space, two-dimensional vintage photographs are presented on the walls and placed inside cabinets. Supplementary design elements and images are positioned on exhibition walls on both sides.
	Exhibit Display	The black and white photographic works are either flat-printed or displayed in wooden exhibition cabinets in the form of lightboxes, closely adhering to both sides of the walls.
	Visual Presentation	Aligned with the old mountain railway theme, hand-drawn illustrations portray the exteriors of early Blue Fu-Hsing Semi-Express trains. Additionally, the illustrations capture the Japanese-style wooden station environment, wooden windowsills, ticket booths, and other design elements, emphasizing the nostalgic atmosphere of the railway.
	Integration of Reality and Illusion	By using illustrative elements for flat printing and production, a layered sense is created between the exhibits and illustrations. For the black and white vintage photographs, multi-layered display panels are employed to form three-dimensional decorations; some photos are presented through lightboxes to enhance the play of light and shadow. Additionally, certain vintage photographs are transformed into windows on the train body illustrations, creating the effect of looking out into the scenery. Commemorative bookmarks resembling train tickets are provided on-site for audience interaction. The Japanese-style station illustrations use different materials and textures to enhance realism. Furthermore, QR codes linked to the digital cultural collections of the Taiwan Hakka Culture Development Center are provided on-site for viewers to gain in-depth insight into the stories behind each photograph.
	Contextual Setting	Black and white vintage photographs with hand-drawn illustrations in flat printing, along with the use of three-dimensional paper-layered boards, create a sense of depth in the exhibition space. It showcases the visual tension elicited through the art of photography. Employing a nostalgic style that easily resonates with viewers, the setting is crafted to resemble a Japanese-style station, guiding observers into a nostalgic journey

		through a tunnel of time. This evokes an emotional connection to the past, transporting viewers across time while immersing them in a nostalgic atmosphere.
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Table 2: Stylistic practices analysis of the three exhibitions in this Study
Source: Taiwan Hakka Culture Development Center and compiled by this study

5. Conclusion

5.1 Cultural Translation in the Presentation of Artwork

(1) Infusing Native Language Into Poetry, Awakening Local Emotions

In the “Poet in Hakka Villages – Hakka Poetry Context Exhibition,” Hakka poetry serves as the foundation. It guides people to reconnect with their mother tongue and feel the pulse of the land, allowing a complete translation of their love for their hometown.

(2) Hakka Artisanship Transcends Tradition, Constructing Contemporary Aesthetics

The “Elegance Indigo and Longing – Plant-Based Indigo Dyeing Exhibition” transforms Hakka's spirit of “hard work and endurance” into contemporary vitality through the medium of indigo dyeing culture. It creates a new style filled with artistic beauty.

(3) Black and White Photos Link Memories, Eliciting Homesickness

In the “Reminiscing about Old Mountain Lines – Digital Archive Old Railroad Photos Exhibition,” black and white vintage photographs act as a tunnel of time, transporting viewers back to the bygone era of the Old Mountain Line. Serving as a conduit for dialogue between the audience and nostalgic sentiments for their homeland, it transforms into a profound yearning for their roots.

The three exhibitions examined in this study use the presentation of poetry, indigo dyeing, and vintage photographs to evoke a rich sense of hometown nostalgia among the audience. Through cultural translation, the showcased works are transformed into a profound expression of love for one's hometown, deep sentiments for one's roots, and an identification with local culture. This goes beyond a mere display of art; it reflects profoundly on cultural, hometown, and personal identity. Through the artists' ingenuity, viewers inadvertently immerse themselves in a nostalgic exploration of their emotional connection to their homeland while appreciating this artwork.

5.2 Stylistic Practices in Exhibition Spaces

(1) Layout of the Narrow, Elongated Space: Adopting Left-Right Symmetry and Visual Balance

Regarding the “spatial layout” configuration, to accommodate the elongated layout of the space, exhibits and design elements are distributed on both sides of the exhibition walls, avoiding overcrowding and maintaining ample pathways. This layout enhances smooth movement for visitors while emphasizing visual balance.

(2) Optimizing Spatial Visibility: Using Props to Enhance Exhibit Displays

In the “exhibit display” arrangement, works are presented in framed displays or placed within acrylic display stands and wooden cabinets, closely aligned with both sides of the walls to emphasize visual balance. This arrangement focuses on maximizing the use of space while maintaining an overall sense of spaciousness.

(3) The Visual Presentation's Aesthetics: Hand-Drawn Illustrations Enhance Richness

Regarding “visual presentation” rendering, hand-drawn illustrations are used as design display elements, enriching the walls and capturing the audience's attention. This approach complements the thematic characteristics, making the overall exhibition more vibrant and engaging.

(4) Integrating Reality and Illusion: Incorporating Flat, Three-Dimensional, and Tangible Props in Spatial Design

Regarding the “integration of virtual and real elements” technique, a sense of three-dimensionality is created in the space through flat output and multi-layered display panels. The use of tangible props enhances the contextual decoration of the exhibition. Additionally, providing commemorative brochures, audio-visual recordings, and sound files on-site enables the audience to deeply engage and experience the exhibition content comprehensively.

(5) The Contextual Atmosphere of Hakka Villages: Infusion and Construction of Homesickness Sentiments

Regarding a “contextual setting,” creating a thematic atmosphere aligns with the characteristics of the exhibition theme. It guides viewers to experience the beautiful imagery of their hometown, the simple and profound cultural aspects of the Hakka community, the vitality of contemporary aesthetics, and a deep sense of nostalgia. This situational arrangement highlights the theme's distinctive features and fosters a richer emotional connection for viewers within the exhibition.

The cultural significance of space reuse is evident in revitalizing existing spatial domains, transforming them into vibrant new entities. This process involves redesign and a collaborative, interactive effort among government entities, artists, and the public. Through the reuse of The Artistic Gallery, a model of collective creation is witnessed. It engages the public while sparking aesthetic awareness and imagination. Initially designed as a pedestrian walkway, The Artistic Gallery has been endowed with new functionality through diverse exhibitions showcasing local Hakka culture. This transformation has led to fresh aesthetic values for the corridor.

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Contact email: trolls5438@gmail.com

Cultural Resilience in the Digital Age: Exploring Taiwanese Indigenous Performing Arts

Chia-Li Lin, National Yunlin University of Science and Technology, Taiwan
Li-Shu Lu, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In recent years, technology has brought about groundbreaking changes in how people live and explore various fields. However, these changes have not only altered how people interact but have also redefined how culture and art are presented and received in the physical world. In response, artists in Taiwan's indigenous music and performing arts industries are actively seeking new roles in this dynamic environment. Therefore, this study focuses on these industries in Taiwan and employs in-depth interviews with cultural respondent, including curators, educators, and representatives of cultural organizations, aiming to gain a deeper understanding of the role of technology in promoting and innovating culture. The findings reveal that technology plays a crucial role in cultural promotion and innovation, expanding cultural influence and providing innovative dissemination methods. However, the study also underscores the importance of using technology judiciously to protect the authenticity of culture and maintain a balance between heritage and innovation. Successfully integrating traditional and modern, local and global elements is identified as a crucial strategy for ensuring cultural transmission and sustainability. This research provides valuable insights for artists striving to maintain cultural resilience in the digital era and highlights the need for ongoing adaptation and integration of technology in artistic practices. The study proposes five recommendations: appropriate application of technology, the importance of cross-disciplinary collaboration, continuous monitoring of contemporary trends, cultural preservation and inheritance, and flexible innovation strategies. These recommendations aim to provide artists with references to maintain cultural resilience in the digital age.

Keywords: Digital Transformation, Cultural Resilience, Innovation Diffusion Theory

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Introduction

In the wave of the digital era, the fields of culture and art have undergone unprecedented transformations. The creative and performance activities of Taiwan's indigenous musician Abao provide a profound perspective, showcasing how digital technology enhances the resilience of cultural and artistic fields in facing modern challenges. For instance, from returning to the tribe to collect ancient tunes, releasing albums in the Paiwan language, publishing books, exploring non-fungible tokens (NFTs), to immersive projection concerts that integrate the virtual and physical worlds, these activities demonstrate how digital technology empowers cultural and artistic fields to face modern challenges with greater resilience and how it strengthens cultural revitalization through the promotion of innovative diffusion. This example symbolizes the profound impact of the digital era on culture and art, not only reshaping the landscape of cultural participation and creativity but also having far-reaching effects on institutions and markets. Arsenijević (2022) noted that this era has not only reshaped the landscape of cultural participation and creativity but has also had far-reaching effects on institutions and markets. The advancement of technology and the proliferation of digital media have changed the ways in which art is created, disseminated, and received. Bharat (2023) further emphasized that digital technology has expanded the boundaries of creation, promoted the integration of art and technology, and opened up infinite possibilities for creative exploration. Meanwhile, Huang (2023) mentioned that this transformation has enriched the pathways for artistic development and increased the diversity of people's participation in arts and cultural activities. As the cultural and artistic fields enter a new era of creating, presenting, and sharing works, the interaction between audiences, users, and cultural and artistic works has also changed. Lazzeretti (2022) believes that this transformation has not only revolutionized the forms of cultural and artistic expression and dissemination but also, in the process of integrating traditional and contemporary trends, digital technology has opened up unprecedented opportunities and challenges for culture. The challenges brought by this transformation include how to adapt to contemporary digital trends to attract the younger generation while preserving the core essence of culture (Carignani et al., 2023). Taiwan's indigenous music and performing arts organizations are actively incorporating technological means to expand their cultural influence through innovative expressions. The introduction of digital technology helps improve service quality and acts as a catalyst for innovation in the experiential process (Ng, 2022). Unru (2022) argues that in the process of digital transformation, it is crucial to reassess and incorporate the unique culture and meanings of indigenous peoples. More importantly, it is essential to educate others about the value of indigenous culture and the importance of its preservation. Lazzeretti (2022) states that these cultural and creative organizations need to formulate new strategies to thrive in the digital age, which involves adopting new technologies and innovations. Additionally, Bannikova (2023) points out that digital transformation has had a significant impact on the production and dissemination of cultural arts. It not only challenges creative elements but also brings new challenges and opportunities to the cultural and artistic fields. In this process, maintaining the ethical, spiritual, and aesthetic values of culture and art becomes particularly important. Therefore, appropriate guidelines need to be developed to help coordinate and regulate cultural development, ensuring that culture can maintain its uniqueness, value, and vitality during the digital transformation process, and promoting a positive interaction and development between culture and digital technology. In light of this, this study aims to delve into how digital transformation impacts the resilience, sustainability, and diffusion of innovation in Taiwan's indigenous music and performing arts and seeks effective strategies to protect and promote cultural heritage in this process.

First, the paper explores how Taiwan's indigenous music and performing arts utilize digital technology to maintain cultural resilience, preserving core values and characteristics in the face of a rapidly changing global environment. Secondly, we discuss how digital technology aids these art forms in achieving sustainable development, exploring new ways to leverage digital technology to drive the long-term survival and growth of the cultural and artistic fields. Finally, we investigate the generation and diffusion process of cultural innovation in the digital age, examining how new technologies inspire new forms of creative expression and how these innovations are accepted by society and integrated into daily life. Through in-depth interviews and analysis of cultural respondent, this paper reveals key strategies and practices for maintaining cultural resilience in the context of digital transformation, providing specific references and guidance to promote sustainable cultural development and the diffusion of innovation. This study offers in-depth insights and practical recommendations for the continuous development of the cultural and artistic fields in the digital era.

1. Literature Review

1.1 The Impact of Digital Technology on Art

The advancement of technology and the proliferation of digital media have changed the ways in which art is created, disseminated, and received. Bharat (2023) emphasizes that digital technology has expanded the boundaries of creation, facilitated the integration of art and technology, and opened up infinite possibilities for creative exploration. Tetiana (2023) believes that digital technology in the performing arts helps create unique visual forms, enhance audience experiences, create new forms of interaction, and expand the possibilities of theater production. Meanwhile, Huang (2023) mentions that this transformation has enriched the pathways for artistic development and increased the diversity of people's participation in arts and cultural activities. Through the application of technology and digitization, cultural heritage can be better protected, cultural and artistic preservation can be promoted, and the cultural resilience of cities can be enhanced, thus achieving sustainable development and prosperity (Deniz, 2023). These innovations brought by digital technology not only change the way art is created but also influence the forms in which art is presented, further promoting the deep integration between art and technology.

1.2 The Impact of Digital Transformation on Culture and Arts

As the cultural and artistic fields enter a new era of creating, presenting, and sharing works, the ways audiences and users interact with cultural and artistic works have also changed. The introduction of digital technology helps improve service quality and acts as a catalyst for innovation in the experiential process (Ng, 2022). Arsenijević (2022) pointed out that this era has not only reshaped the landscape of cultural participation and creativity but has also had far-reaching effects on institutions and markets. Bannikova (2023) further reminds us that digital transformation has had a significant impact on the production and dissemination of cultural arts, challenging creative elements and bringing new challenges and opportunities to the cultural and artistic fields. In this process, maintaining the ethical, spiritual, and aesthetic values of culture and art becomes particularly important. Based on the above, these challenges and opportunities are driving the cultural and artistic fields towards a more digital, open, and innovative direction.

1.3 Challenges and Opportunities

Tetianal (2022) pointed out that digital technology has shaped the environment and conditions for artistic creation, profoundly changing the way artists create and affecting the dissemination and presentation of artworks. Lazzeretti (2022) believes that this transformation has not only revolutionized the forms and methods of cultural and artistic expression but also, in the process of integrating traditional and contemporary trends, opened up unprecedented new opportunities and challenges for culture through digital technology. Digital transformation has expanded the possibilities for cultural and artistic creativity, promoted global collaboration, simplified prototyping, and enabled interactive and immersive experiences (Bharat, 2023). The challenges brought by this transformation include how to adapt to contemporary digital trends to attract the younger generation while preserving the core essence of culture (Carignani et al., 2023). These challenges require the cultural and artistic fields to find new strategies and methods to cope with the changes brought about by digital transformation.

1.4 Strategies for Cultural and Creative Organizations

According to Lazzeretti (2023), individual culture and creativity can be effective tools for addressing the challenges posed by new technologies. By leveraging the knowledge and skills within their own culture, individuals can find ways to coexist with new technologies. Lazzeretti (2022) further points out that cultural and creative organizations need to develop new strategies to thrive in the digital age. These strategies involve adopting new technologies and innovations. Therefore, appropriate guidelines need to be formulated to help coordinate and regulate cultural development, ensuring that culture can maintain its uniqueness, value, and vitality during the digital transformation process, and promoting positive interaction and development between culture and digital technology. In summary, digital transformation has profoundly changed the cultural and artistic fields. Through positive interaction with digital technology, it has achieved cultural protection and development, expanded creative possibilities, and brought new potential for enhancing cultural resilience.

1.5 Case Study of Abao

Naji (2020) emphasizes that the essence and manifestation of resilience are rooted not only in individual traits or abilities but also in the capital resources stored within the larger community, such as cultural wealth and inherited wisdom. This concept of shared capital resources fosters cooperation and sustainable development in the cultural and artistic fields. Taiwan's indigenous musician Abao (Aljenljeng) (2022) provides a profound perspective. In 2014, she collaborated with her grandmother (Mitsuko) and mother (Ai-ching) to release the album "Eastern Paiwan Tribal Songs: Three Generations." From 2015 to 2020, she conducted the "Nanguaq Island-Wide Recording Project," visiting 50 tribes to collect ancient tunes. In 2016, she released the album "Vavayan · Women" in the Paiwan language. In 2020, she released "Kinakaian: Mother's Tongue." In 2021, she established an indigenous cultural music label and gathered seven young indigenous creators to release the compilation album "N1: Nanguaq Project No. 1." That same year, she held Taiwan's first virtual-physical integrated immersive projection concert, "The Unceasing Voice of the Forest." In 2022, she published the book "Ari: Moving Forward with Questions" and launched a series of millet wine NFTs at the "Adu Movement Concert," which could be exchanged for millet wine at the concert. In 2023, she collaborated with the studio "Kinoshita Japan" to create a fantasy-style MV animation through AI-generated illustrations. However, Abao's efforts are only part of

the broader context of Taiwan's indigenous culture in the digital age. The development of digital technology not only affects the creative methods of Taiwan's indigenous musicians but also has a profound impact on the entire cultural and artistic field.

Summary

The gradual disappearance of traditional indigenous music under the influence of popular music is a global issue (Aljenljeng, 2023). However, the niche nature of indigenous music means that to expand its audience, it must attract listeners from other groups (Aljenljeng, 2023). In this context, Taiwan's indigenous musician Abao (Aljenljeng) has looked to international performances for inspiration, seeking new creative directions from electronic music to establish a connection between the modern and the traditional. In her albums, she has included dance tracks, pop music elements, love songs, and gospel songs to cater to different musical preferences. She emphasizes that tradition and innovation are not opposites but can coexist. Therefore, she has based her music on the Paiwan language and ancient tunes, blending generational changes and challenging styles such as R&B and electronic music to create a refreshing new style. She believes that only by fully understanding tradition can new works be reinterpreted. By reinterpreting culture in ways acceptable to modern audiences without desecrating or misusing it, marginalized cultures can gradually be introduced to more people. Abao's efforts demonstrate how digital technology can enhance the resilience of the cultural and artistic fields and strengthen cultural revitalization by promoting innovation. She incorporates indigenous music into popular elements and uses digital platforms and new presentation formats for promotion and performance, making indigenous culture more vibrant and able to attract a broader audience. Abao's endeavors not only impact young indigenous people but also foster cultural identity among the next generation of indigenous youth.

2. Methods and Design

2.1 Research Participant

This study focuses on the Taiwanese indigenous musician Abao (Aljenljeng) as the primary case for observation and analysis. Additionally, three cultural respondents from different professions were invited for in-depth interviews. These cultural respondents come from various fields, including regional design, digital archiving, and cultural consultancy.

2.2 Research Methods

This study will employ in-depth interviews and the theory of innovation diffusion to explore the role of technology in promoting and innovating within Taiwan's indigenous music and performing arts industries. The in-depth interviews will collect insights from the perspectives of cultural respondent to supplement the understanding of the case study of Abao and provide diverse viewpoints. The theory of innovation diffusion will serve as the theoretical framework for analyzing the case of Abao, using this theory to explain and understand Abao's innovative practices in indigenous music and how technology influences the diffusion process of these innovations.

Furthermore, Rogers (1962) in his theory of innovation diffusion, mentioned the diffusion process of innovations within a society or culture, emphasizing that the diffusion process must consider factors of innovation, communication channels, time, and social systems. Moore (1991) expanded on the theory of innovation diffusion, suggesting that when an

innovative product enters the mainstream market—transitioning from "early adopters" to the "early majority"—it must cross a "chasm." This chasm represents the critical point at which an innovative product's survival in the customer market is determined.

Therefore, this study will base its analysis on Rogers' theory, exploring the transformation and development strategies of Taiwan's indigenous music and performing arts industries through the lens of innovation diffusion. It will also introduce the concept of the "chasm" to examine whether a niche market can transition to the mainstream market. The theoretical foundation aims to help deeply understand and analyze the practical impact of technology on cultural innovation and promotion.

2.3 Research Stage

The process is divided into three stages: acquiring theoretical knowledge and case analysis, conducting in-depth interviews with cultural respondent, and analyzing through the lens of innovation diffusion theory.

Acquiring Theoretical Knowledge and Case Analysis: This stage marks the starting point of the research. The focus is on obtaining relevant theories and cases through literature review and case analysis. Constructed theoretical knowledge and shared cases generate new ideas. Additionally, by discussing and reflecting on the experiences and knowledge of Taiwan's indigenous music and performing arts industries, this literature and case analysis provide a foundation for understanding innovation.

In-Depth Interviews with Cultural Respondent: Data will be collected from cultural respondent with different professional backgrounds to supplement diverse perspectives and insights. The interviews will focus on the impact of technology on cultural promotion and innovation in Taiwan's indigenous music and performing arts industries, including their views and experiences, and attempt to propose relevant suggestions.

Analysis through Innovation Diffusion Theory: In this final stage, the collected data will be examined from the perspective of innovation diffusion theory, exploring the innovative practices in the case study and the impact of technology on innovation. This stage aims to combine theoretical knowledge with practical situations.

3. Data Analysis and Results

The following sections will detail the interview results and the analysis of innovation diffusion elements. Finally, we integrated the interview results with the analysis from the innovation diffusion theory to fully comprehend the impact of technology on the role of cultural promotion and innovation in Taiwan's indigenous music and performing arts industries.

3.1 Interview Content Summary and Analysis

This stage describes the views of the three respondents on the application of technology in cultural performances and summarizes their perspectives.

(1) Respondent D

Believes that integrating digital interactive media technology can add value to performances and provide immersive experiences. He mentioned that with the digital development of urban and rural areas in Taiwan, integrating technology into performances is a feasible trend. He emphasized the importance of modern innovative technologies and methods in performances and advocated for incorporating technology into performances, such as using audio-visual recording technology and holographic projections. Overall, he believes that technology is an important auxiliary tool in indigenous cultural performances but also stressed that technology should be used appropriately and not excessively to maintain the purity and authenticity of the culture.

(2) Respondent E

Emphasized the importance of technology in supplementing elements that cannot be achieved on stage, such as controlling projections and stage lighting, and using the latest technologies like AR, the metaverse, and immersive experiences to enhance the audience's sensory experience. He mentioned that technology can help make the story of the performance more complete and can be used to highlight main characters or key plot points. Although he supports the use of technology, he also stressed that it should not be overly flashy but rather serve as a tool to highlight important aspects. Overall, he believes that the moderate use of technology in performances can enrich the audience's experience but also mentioned that technology needs to be used cautiously to avoid affecting the quality of the performance.

(3) Respondent F

Believes that technology can bring new possibilities to performances, such as using AR technology to recreate historical scenes, combining cultural experiences with AR, and exploring immersive interactive methods and live streaming platforms. He emphasized the integration of technology with performances and the application of innovative technology in performances, even integrating images and interactions on the performance stage as a worthwhile approach. He advocated for using modern technology to resonate with the audience, thereby bringing a richer experience and broader audience participation.

In summary, all three respondents hold positive attitudes, believing that technology can bring new possibilities to cultural performances and enrich the audience's experience. They also mentioned the importance of immersive experiences, believing that technology can create a more engaging performance environment. However, their views vary depending on personal experiences and understanding of technology applications. For example, Respondent D emphasized the role of technology as an auxiliary tool, Respondent E focused on the integration of technology and performance, while Respondent F paid more attention to the interactivity that technology brings to the audience. Therefore, although there are some differences in the views of the three respondents on the application of technology in cultural performances, they all agree that technology can bring new possibilities to Taiwan's indigenous music and performing arts industries, making it worth exploring and applying.

3.2 Analysis of Innovation Diffusion Elements

Secondly, this study uses the perspective of innovation diffusion theory to analyze the case through the five factors of innovation. The four factors of innovation diffusion theory are: (1)

innovation itself, (2) communication channels, (3) social systems, (4) time, and (5) characteristics of the innovation adopters. The analysis of these factors explains the innovative practices and their impact on Abao's music creation and promotion process.

(1) Innovation Factors

Abao combines traditional indigenous music elements with modern pop music, using electronic music production techniques. This innovation gives her music a unique position in both the indigenous music circle and the mainstream music market.

(2) Communication Channels

Abao uses various communication channels to promote her music, including establishing a music label, cross-disciplinary collaborations, social media, NFT platforms, and immersive venues. Through these channels, Abao's music reaches a wider audience and achieves diffusion across different platforms.

(3) Social Factors

Abao's works incorporate native languages and ancient tunes, describing the details of indigenous life. By using pop music, she raises awareness about the preservation and transmission of indigenous culture, showcasing modern society's recognition of multiculturalism. This also promotes cultural identity, understanding, and respect.

(4) Time Factors

Abao's music creation and promotion processes reflect her sensitivity to contemporary trends. She continuously adjusts her music style and performance methods to cater to the preferences and needs of audiences at different times.

(5) Characteristics of the Innovation Adopters

Abao creates a space for dialogue on indigenous issues and practices bridging indigenous and mainstream cultures through her work and life.

By analyzing these factors, we can understand the innovative practices in Abao's music creation and promotion process and their impact.

3.3 Crossing the Chasm Strategy Analysis

This study applies specific strategies from the Crossing the Chasm framework to analyze the case through six key factors: (1) clear value proposition, (2) strong market communication, (3) user experience and support, (4) product proof and case studies, (5) strategic partnerships, and (6) flexible product strategy. Using these strategies, we analyze Abao's innovative practices in music creation and promotion and their impact.

(1) Clear Value Proposition: Abao positions herself as a bridge between indigenous music and mainstream culture, enhancing the quality of musical performances through digital technology while preserving the cultural essence of indigenous peoples. This clear value

proposition explains how she creates new forms of artistic expression while protecting and transmitting cultural heritage.

(2) Strong Market Communication: Abao actively uses social media, press conferences, concerts, and other platforms for market communication, conveying her unique and innovative cultural values. Her brand recognition has gradually increased among mainstream audiences, further solidifying her brand image.

(3) User Experience and Support: Abao's music performances incorporate new technologies such as virtual reality and NFTs, enhancing the immersion of the music and providing unique digital collectibles. These innovations offer audiences unprecedented experiences, clearly explaining how they address the limitations of existing performance forms and provide more attractive options.

(4) Product Proof and Case Studies: Abao has conducted several successful virtual-physical integrated concerts, showcasing the practical effects of new technologies and receiving positive feedback from audiences. These case studies provide strong evidence for other potential early majority adopters, reducing their perceived risk of new technologies.

(5) Strategic Partnerships: Abao can strengthen collaborations with technology companies, cultural promotion organizations, and distribution channels to enhance the credibility and visibility of new technological products. Such partnerships will help promote new technologies and attract a broader audience.

(6) Flexible Product Strategy: Abao remains sensitive to market feedback and adjusts based on audience needs and responses. For example, she can add interactive segments to her performances or adjust the specific applications of technology based on feedback, further enhancing audience satisfaction and experience.

Through these strategies, we analyze the innovative practices in Abao's music creation and promotion processes and their impact, providing a comprehensive understanding of how technology influences cultural promotion and innovation.

Summary

The innovation factors explain Abao's success in Taiwan's indigenous music and performing arts. He has gained a unique position in both the indigenous music circle and the mainstream music market, reaching a wider audience through various communication channels, thereby increasing his visibility and influence. Additionally, by adapting to contemporary trends, his music and performances remain attractive, fostering cultural identity among the next generation of indigenous youth. Thus, Abao successfully crossed the chasm, further expanding his social impact. Secondly, insights from the interviews with cultural respondent reveal the diverse applications and importance of technology in cultural performances. The respondent's views also reflect a cautious and prudent approach to the use of technology. Their perspectives remind us that technology should serve as a beneficial aid in performances, rather than the dominant factor. It should be utilized to its full potential while maintaining the purity and authenticity of the performances, providing audiences with rich and memorable experiences. Abao's success demonstrates the significant role of technology in performances. However, the respondent also remind us that technology should be appropriately applied to protect the core essence of the culture.

4. Conclusions and Recommendations

Our findings highlight the critical role of technology application, which not only expands the cultural impact but also provides innovative dissemination methods. However, caution must be exercised when utilizing technology to ensure the authenticity of the culture and maintain a balance between preservation and innovation. In addition to the application of technology, we should also consider the importance of innovation decision factors in the development of the industry.

(1) Appropriate Application of Technology

When applying technology to cultural performances, a balance should be maintained to fully utilize the potential of technology while preserving the purity and authenticity of the culture. This requires continuous careful consideration and balance.

(2) Importance of Cross-Disciplinary Collaboration

Cultural respondent should strengthen cross-disciplinary collaboration with the technology sector to develop more innovative performance methods and tools, promoting industry development and cultural heritage.

(3) Continuous Monitoring of Contemporary Trends

Musicians and cultural respondent should remain sensitive to contemporary trends, continuously adjusting and innovating to meet audience needs and preferences. Keeping an eye on technological advancements and incorporating them into performances is a key way to maintain competitiveness.

(4) Cultural Preservation and Inheritance

In addition to commercial success, emphasis should also be placed on the preservation and transmission of indigenous culture. The application of technology can promote this goal to some extent, such as through digital archiving to preserve and transmit the rich connotations of indigenous music.

(5) Flexible Innovation Strategies

When formulating innovation strategies, it is important to consider the characteristics and needs of different groups and design targeted innovation solutions. For large organizations, the focus can be on the economic returns and risk control of innovation; for small and medium-sized organizations, the emphasis can be on the convenience and practicality of innovation; for individual creators, more technical support and space for self-expression should be provided.

In conclusion, the findings and recommendations of this study aim to guide the future development direction of Taiwan's indigenous music and performing arts industries, promoting their continuous prosperity and cultural heritage. It is hoped that these recommendations will provide valuable references for the development of the industry and guide artists in maintaining cultural resilience in the digital age.

Acknowledgements

This paper is grateful for the grant and support from the research program of the National Science and Technology Council, which enabled the successful completion of this research (Project Number 111-2420-H-224-005-).

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Contact email: g9934711@gmail.com

An Analysis of Bela Bartok's Polymodal Chromaticism, Compound Scales, and Expanded Tonality in Chick Corea's Children Song No.10

Ganesan Balakrishnan, Universiti Malaysia Sabah, Malaysia

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This study focuses on Chick Corea's tonal expansion method using the theory of polymodal chromaticism by Bela Bartok. Children Song no.10 from the collection of Children Songs, 1984 by Corea is analyzed in this research. Despite the significance of this piece, there exists a scarcity of musical analyses examining the use of polymodal chromaticism as a composition tool in jazz music, suggesting a need for further research in this area. This study uncovers the compositional method and style that Corea uses in applying the theory of polymodal chromaticism. A qualitative framework with a combination of method of music analysis and quasi-Schenkerian music analysis were applied to highlight modal and compound scales, ostinatos, harmonic progression, and compositional techniques Corea uses to expand tonality in the selected piece. The study led to detailed insights into the compositional techniques used to achieve tonal expansion, as well as the discovery of unique compound scales and combinations of scales that led to total chromaticism. The methods of tonal expansion using the theory of polymodal chromaticism are detailed in this study, allowing further exploration of the theory in other areas of jazz and contemporary music.

Keywords: Tonal Expansion, Polymodality, Chick Corea, Jazz Theory

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Introduction

The after-effects of the bebop era laid the basis for jazz musicians and composers to experiment with different methods and styles in achieving distinct harmonic and melodic patterns. Former musician of Miles Davis, Chick Corea who is instrumental to the bebop repertoire were among the composers who took part in the expansion of the post-bop and fusion jazz (Strunk, 2016). The advancement of Corea's composition was extensive and cross-disciplinary throughout his career. *Children's Songs*, a collection of compositions written for piano was released in 1984 and it revealed Corea's adoration for Bela Bartok's work. *Children's Songs* has a similar format to Bartok's *Mikrokosmos* which was designed as a progressive piano study for young pianists, and it introduces atonality, polyrhythms and polychords among other 20th century composition tools (Lynch, 2012).

Background and Context

Corea began composing the songs in 1971 and the music was first recorded in July 1983 for the studio album, *Chick Corea's Children's Songs*. A total of 20 short solo piano pieces and one Baroque chamber trio was recorded in the album. Some of the 'Bartokian' resemblances were the use of pentatonic or modal scales, odd time signatures and polyrhythm, complex styles in a fleeting period, and increasing level of playing difficulty through the song sequence. Chick Corea in the preface of the annotated version of the album says that he wants to "*convey simplicity as beauty, as represented in the spirit of a child.*" This is reflected through the application of dynamics, tonality and rhythm used in the compositions (Corea et al., 1984).

The application of the theory of 'polymodal chromaticism,' coined by Bartok in the 1930's is highly apparent in Corea's Children Song No.10. The occurrence of elements of the theory in Corea's works has been implied in a previous study by Daniel Alan Duke, '*The Piano Improvisation of Chick Corea: An Analytical Study*' and Jordan Michael Lynch in '*Where have I know this piece before? An exploration of harmony and voice leading in the compositions of Chick Corea*' (Duke, 1996; Lynch, 2012, p. 56). However, a detailed music analysis exhibiting the unique compound scales and how it is used to expand tonality in Corea's works were not explored along with the compositional techniques that has been applied to integrate the theory of polymodal chromaticism. **Figure 1** shows an example of a polymodal composite scale.

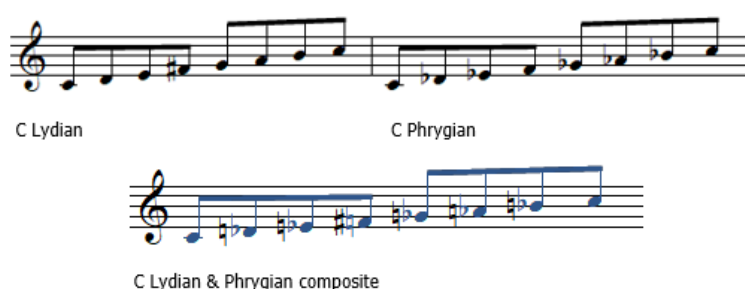


Figure 1. Example of Polymodal Composite Scale

Given the background of Corea as a jazz composer that is applying a tonal expansion method of the 20th century classical composer Bela Bartok, the focal point of this study is to uncover distinctive compositional and arranging techniques in the selected piece using the polymodal

chromaticism theory. The research also uncovers the unique combination of scales that are compounded to achieve tonal expansion leading towards total chromaticism. In addition, the correlation between musical forms and polymodal chromaticism are revealed through the results obtained through the analysis.

Methods

In uncovering the compound scales and expanded tonality in Chick Corea's Children Song no.10, a qualitative theoretical framework is applied where a combination of music analysis method and Schenkerian music analysis method are used to analyze. The research starts with the selection of the piece: Children Song No.10, 1984, which is then digitalized using a notation software as per the selected recording. A melodic analysis using the Schenkerian method is then conducted to reveal the type of modal scales being applied on both the staves of treble and bass. The results of the findings are merged on a keyboard graph to unveil the compound scales. The compound scales are then measured from a scale of seven (diatonic) to 12 (chromatic) notes. Each unique combination of scales is analyzed in this manner to expose the type of compound scales being used and the level of tonal expansion achieved through the process.

A second music analysis is done to detect key compositional techniques that are applied to integrate the theory of polymodal chromaticism. This includes ostinatos, harmonic progressions and arranging techniques highlighting harmonic movements, voicings, motivic development, and stylistic influences. A table of summary of polymodal chromaticism is written at the end of analysis of the piece indicating types of modal scales used, number of composite scale notes derived, and type of tonality (tonal, polymodal or chromatic) applied at specific score section and measure number. Through the summary, a graph is created to reveal the correlation between polymodal chromaticism and musical form.

Analysis and Results

Below is the analyzed score of Children Song No.10 that highlights the use of polymodal chromaticism. This is evident in the use of contrasting modal scales on both hands.

Children's Song No.10

Chick Corea

♩ = 120

A

Piano

Dm / A

D Locrian

Gb Ionian

Bb Mixolydian

6

G Whole Tone

Ab Ionian

G / D

Eb Ionian

Bb Whole Tone

Bb Ionian

E Ionian

Ab / Eb

Eb Dorian

11

Eb Ionian

D Whole Tone

Db Whole Tone

C# Super Locrian

Eb Dorian

F# Ionian

G Ionian

C# Ionian

D Dorian

16

C# Super Locrian

G# Locrian

B

C# Dim. Whole-Half

Eb Aeolian

E Ionian

F# Ionian

G Mixolydian

21 A Harmonic Minor Ab Ionian Gb Ionian F Ionian

Pn.

A Dim. Whole-Half A Dim. Half-Whole Ab Ionian G Mixolydian

26 Eb Ionian **C** Ab/C Eb Aeolian B Aug. Scale

Pn.

G Mixolydian F# C# Db Mixolydian

E Phrygian

31 C# Locrian 1. 2.

Pn.

A Locrian Db Lydian A Aeolian A Aeolian

D

36 A Mixolydian Eb Ionian POLYCHORDS

Pn.

D Dorian Eb Ionian Eb Mixolydian E Phrygian F Mixolydian

41

Figure 2. Transcription and Polymodal Chromaticism Analysis of Chick Corea's Children Song No 10.

Children Song No.10 is written in the time signature of $\frac{3}{4}$ with a rhythm of jazz waltz. The piece starts with a polychord of Dm/A on the right hand and Eb/Bb on the left hand, establishing a series of polymodal melodic movement to come after. Bars two to four has a melody consisting of Bb Mixolydian on the left hand. Each bar starts with a Bb note creating a pedal point. The right hand of bars two and three has a melody built on D Locrian while bar four is made of the notes Gb, Bb and F, which is part of a Gb major7 chord, thus resulting in a Gb Ionian scale. The D Locrian and Bb Mixolydian scale on bars two to four shares the exact same notes resulting in a very tonal approach of Bb Mixolydian as there is an established Bb pedal point on the left hand. Bar 5, however, has a composite of G Ionian and Bb Mixolydian which combines into a 10-note scale. This sudden change also signifies the beginning of rapid changes in tonality in bars to come. Bars six to eight have a scale change on each bar on the left hand creating a very free movement of harmony and tonality. Bar six has an interesting change in tonality with a shift into a contrasting G whole tone scale on the right hand, and Bb whole tone scale on the left hand.

The composite of scales in bar 6 consists of 12-notes which creates total chromaticism. Although the change happens merely for a bar, the total chromaticism allows the tonality to lean more towards atonality. Bars seven and eight uses Ab Ionian on right hand while left hand uses Bb Ionian on bar seven and E Ionian on bar eight. Bar seven marks the end of Bb pedal on the left hand that was consistent throughout bars two to seven. The composite scale on bar seven results in a nine-note scale. As the Ab Ionian scale remains on the right-hand part of bar 8, the left hand moves to E Ionian resulting in an 11-note composite scale. Bar nine consists of polychord like bar one, thus starting a new phrase and a series of polymodal harmonies alike to bars two to eight. The polychord on bar nine is a combination of G/D on the right hand and Ab/Eb on the left hand. Bars 10 and 11 show a continuation of Eb as a pedal point on the left

hand through the Ab/Eb polychord from bar nine. The modal scale used on bars 10 and 11 on the left hand is Eb Dorian while the right hand uses Eb Ionian.

The pedal point on the left hand moves away from Eb on the left hand towards a series of minor second interval movements on the root note from bars 12 to 17. The movement starts from F# to G, C# to D, and Eb to E. This creates a fluid symmetrical movement on the left hand. The right hand on bar 12 consists of D whole-tone scale notes while the left hand consists of F# Ionian scale notes. The right-hand scale changes into Db whole-tone scale on bars 13 and 14. The left hand consists of G Ionian on bar 13 and changes to a C# Ionian on bar 14. The composite scales reveal that both combinations of modal scales in bars 13 and 14 have a 10-note composite scale. However, the changes in left hand scale of bars 13 to 14 do alter the overall color of the composite scale. Bars 15 to 18 have a single line melody and a change in rhythmic pattern on the right hand unlike the previous bars that consists of a dotted minim followed by a minim. The use of crotchets throughout these measures creates a notable change in the piece, and it indicates and serves as a clear end to section A of the piece. The right hand has a three-bar stint of C# super Locrian as the scale applied from bars 15 to 17 while the left hand constantly changes from D Dorian, Eb Aeolian, and E Ionian. The composite scale of bar 15 resulted in an eight-note scale, bar 16 resulted in an 11-note scale and bar 17 resulted in a 10-note scale. The final bar of section A, bar 18, sees a change on the modal scale on the right hand from C# Locrian to G# Locrian and the left hand into F# Ionian. The combination of these modal scales produces a 10-note scale.

Section B of the piece retains a similar rhythmic motive as section A, especially the left-hand ostinato. Section B also uses an octatonic scale on the right hand of bars 19 and 20, which reflects jazz influences of Chick Corea. The scale used is a C# diminished built in the sequence of whole-half/tone-semitone intervals. The left-hand part of bars 19 and 20 uses a G Mixolydian modal scale. The combination of C# diminished scale (octatonic) and G mixolydian result in an 11-note composite scale, one short of achieving total chromaticism. Bars 21 and 22 show another interesting use of non-modal scales. The left hand uses an A diminished scale built on whole-half/tone-semitone sequence and an inverted half-whole/semitone-tone, both used on bars 21 and 22, respectively. The right hand on bars 21 and 22 uses an A harmonic minor. The composite scale of A harmonic minor and A diminished (whole-half/tone-semitone) on bar 21 produces a 9-note scale while bar 22 with an inverted diminished scale creates a total chromatic scale. The tonality then eases on the following bars 23 to 26 where a combination of Ionian/Major and Mixolydian scales are applied. Bar 23 resolves the harmonic tensions by both hands using Ab Ionian and on the following bar 24, the left hand remains Ab Ionian while the right hand changes into Gb Ionian.

Section B of the piece ends with the left-hand part of bars 25 and 26 consisting of notes from G Mixolydian scale while the right-hand uses F Ionian on bar 25 and Eb Ionian on bar 26. The combination of F Ionian and G Mixolydian creates an eight-note composite scale on bar 25. On bar 26, it is a 10-note composite scale. Section C begins with a long polychord like bars one and nine. The polychord consists of a combination of Ab/C and F#/C#. This section has a similar ostinato as section A and B on the left hand and the phrase ends with an introduction of quavers throughout measure 33, 34 and 35. Unlike the previous sections, section C does not change in modes and scales as quickly as before. The scales are prolonged up to 3 bars, an obvious change compared to a switch of scale every bar on the previous sections. On Bars 28-30, Db Mixolydian scale is used on the left hand. The right hand has Eb Aeolian on bars 28 and

29. Both E \flat Aeolian and D \flat Mixolydian share the same notes making bars 28-29 tonal. The right-hand changes into a B augmented scale on bar 30. Augmented scales are widely used in jazz music, and it is a symmetrical scale built on intervals of minor-thirds. The use of an augmented scale, which is a hexatonic scale combined with a Mixolydian scale resulted in a composite of nine-note scale in bar 30. The piece continues with a C \sharp Locrian on the right hand and A Locrian on the left hand on bars 31 and 32. The combination of these modal scales resulted in an 11-note scale.

An E Phrygian scale is applied throughout bars 33 to 35 on the right hand. These bars are also different in rhythm compared to the ostinatos established in previous sections. The right-hand part has an all-crotchet bar while the left hand uses all quavers. On bar 33, the left hand consists of notes from D \flat Lydian scale and on bar 34 and 35 an Aeolian mode is being used. The left-hand descending notes on bar 34 also has a permutation on the last note of the bar (marked ①). The B \flat does not belong in the scale of An Aeolian thus serving as a chromatic passing-note. The composite scale in bar 33 shows polymodality and produces an 11-note scale. However, the scale E Phrygian and A Aeolian share the exact same notes in bars 34 and 35 resulting in a modal approach and marking the end of section C. Section D of the piece has a drastic outlook compared to the previous sections. Ostinatos are not applied throughout bars 36 to 39. The section starts with an A Mixolydian on the right hand and D Dorian on the left hand on bar 36. The composite scale resulted in a nine-note scale.

E \flat Ionian scale is applied to the right-hand part of bars 37 to 39. The left hand starts with E \flat Ionian on bar 37 extending into half of bar 38 and goes into a rapid succession of modal scale change every three quavers. This rapid change of scale also emphasizes and prepares for a time signature change on bar 40, from $\frac{3}{4}$ to a $\frac{6}{8}$. A chromatic ascending pattern of E \flat Mixolydian, E Phrygian, and F Mixolydian is applied every three quavers creating an accent of a compound rhythm time signature with the left hand remaining on E \flat Ionian.

The mixture of E \flat Ionian and E \flat Mixolydian resulted in a major scale with the addition of a b7 note. The combination with E Phrygian shows a 10-note composite scale, while the other half of the bar with F Mixolydian has an eight-note scale. Although the extent of polymodality is not as wide, the rapid change in scale does produce a momentous change in color of the tonality in bars 37 and 38. The remaining bars 40 to 47 of section D of the piece do not use a polymodal chromaticism approach but rather a movement of complex polychords. Throughout these bars, a root note of F \sharp is always present while the upper structure of the harmony keeps on moving each bar.

The concluding section of the piece, section E returns to a familiar polychord intro, a combination of D/F \sharp on the right hand and C/G on the left hand. The left hand of bars 49 to 52 highlights an ostinato built on G Mixolydian. This is an interesting choice as the piece ends with a C Major chord on both hands. The G Mixolydian is used to prepare a perfect cadence of V-I on the final bar. An A Aeolian is used on bars 49 to 51 on the right hand, which shares the same notes as a C Major scale. On bar 52 however, E \flat Ionian is applied right before resolving into C Major on the last bar. A very drastic yet calm ending for a piece that is fluid in tonality. The combination of an A Aeolian and G Mixolydian on bars 49 to 51 is tonal as both the scales share identical notes. The composite scale of E \flat Ionian and G Mixolydian on bar 52 resulted in a 10-note scale. A summary of compound scales and tonality applied throughout the piece is shown in **Table 1**.

Table 1: Summary of polymodal chromaticism in Children Song No.10.

Section	Bars	Modal Scales	No. of composite scale notes	Tonality
A	2-4	D Locrian + B \flat Mixolydian	7	Modal
A	5	G Ionian + B \flat Mixolydian	10	Polymodal
A	6	G Whole Tone + B \flat Whole Tone	12	Polymodal (Chromatic)
A	7	A \flat Ionian + B \flat Ionian	9	Polymodal
A	8	A \flat Ionian + E Ionian	11	Polymodal
A	10-11	E \flat Ionian + E \flat Dorian	9	Polymodal
A	12	D Whole Tone + F \sharp Ionian	10	Polymodal
A	13	D \flat Whole Tone + G Ionian	10	Polymodal
A	14	D \flat Whole Tone + C \sharp Ionian	10	Polymodal
A	15	C \sharp Super Locrian + D Dorian	8	Polymodal
A	16	C \sharp Super Locrian + E \flat Aeolian	11	Polymodal
A	17	C \sharp Super Locrian + E Ionian	10	Polymodal
A	18	G \sharp Locrian + F \sharp Ionian	10	Polymodal
B	19-20	C \sharp Dim. Scale (W-H) + G Mixolydian	11	Polymodal
B	21	A Harmonic Minor + A Dim. Scale (W-H)	9	Polymodal
B	22	A Harmonic Minor + A Dim. Scale (H-W)	12	Polymodal (Chromatic)
B	24	G \flat Ionian + A \flat Ionian	9	Polymodal
B	25	F Ionian + G Mixolydian	8	Polymodal
B	26	E \flat Ionian + G Mixolydian	10	Polymodal
C	30	B Augmented + D \flat Mixolydian	9	Polymodal
C	31-32	C \sharp Locrian + A Locrian	11	Polymodal
C	33	E Phrygian + D \flat Lydian	11	Polymodal
C	34-35	E Phrygian + A Aeolian	7	Modal
D	36	A Mixolydian + D Dorian	9	Polymodal
D	38	E \flat Ionian + E \flat Mixolydian	8	Polymodal
D	39	E \flat Ionian + E Phrygian	10	Polymodal
D	39	E \flat Ionian + F Mixolydian	8	Polymodal
D	52	E \flat Ionian + G Mixolydian	10	Polymodal

Chick Corea's jazz influence could be observed from his style of applying the polymodal chromaticism theory in Children Song no.10. Ostinatos are broadly applied in Children Song No.10 combined with a quick change of polymodal scales. The rhythm of the ostinato is preserved while the notes switch according to the mode or scale. Throughout the piece, frequent changes in compound scales create an unresolved tonal establishment. The compound scales are used melodically and harmonically, paired with a jazz waltz-like rhythm. Section A to C of the piece exhibits Corea's intent in preserving a similar motif throughout while the compound scales change. Section D transitions into a series of arpeggiated polychords and resolving back

into the main theme in section E. Below are the unique scales used by Corea in Children Song no.10 to create polymodal scales.

- a) Super Locrian scale
- b) Diminished scale (Whole-Half)
- c) Diminished scale (Half-Whole)
- d) Augmented scale

Below are the compound scales resulting in a 12-note (chromatic) scale used in the piece.

- a) G whole tone + Bb whole tone
- b) A harmonic minor + A diminished (Whole-Half)

Corea's application of polymodality in Children Song no.10 plays a crucial role in the overall form development of the piece. A turbulent movement in the level of polymodality can be seen in **Figure 3** reflecting Corea's intent to generate a soundscape that moves constantly from tonal to polymodal and twice reaching 12-note compound scale (chromatic/atonal) near the beginning and in the middle of the piece. The level of polymodality shifts between 10 and 12-note polymodal scales throughout the piece. Figure 5.3 indicates that the piece has a (polymodal – atonal – polymodal) change indicating the mid-section a climax. The polymodal levels reveal an arch shape consistent with Bartók's symmetry notions. Corea applies an (A-B-C-D) musical form in this piece. Section A (bars 1-10) has an increase from 10-note compound scale up to an 11-note compound scale. Section B (bars 11-18) maintains the 11-note compound scale as a preparatory section progressing into a full chromatic compound scale in the first five bars of Section C. The level of polymodality decreases as Section C (bars 19-28) concludes and enters a quiescent period using 10-note compound scale towards the end in Section D. Children Song No.11 exhibits total polymodality throughout the piece. The compound scales mostly display transitions between 10, 11, and 12-note polymodality level while defining section changes, harmonic resolutions, and overall musical form.

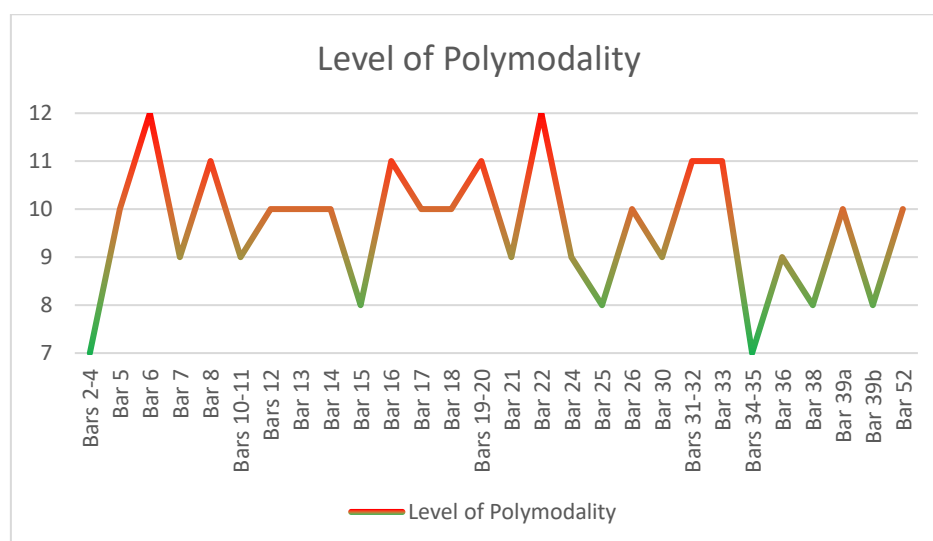


Figure 3. Level of Polymodality in Children Song No.10.

Conclusion

Musical analysis of Chick Corea's compositions focusing on polymodal chromaticism and expanded tonality allows a new perspective on the composers works. The results of this method

reveal detailed insights and formulas to achieve fluidity in the realm in between tonal and atonal music. Furthermore, the approach also opens a unique path towards music analysis and compositions of jazz and contemporary music in the future.

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Contact email: ganeshb@ouchacademy.com

***Biopower of Artists: Training Logics of Cantonese Opera as Cultural Heritage
in Hong Kong***

Isabella Siu-wai Yun, University of Hong Kong School of Professional and Continuing
Education, Hong Kong SAR

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

We live, according to Foucauldian theorists, in a power relations, where we understand our individual opportunities and limitations as such an insightful way to open up the problem of self, with which to afford people in constant productive positions with practical knowledge in survival. How do artists be subjected for disciplinary in the politics of art sustainability? In what way artists are being trained to rationalize dominate discourse of new knowledge for sustainable development? With what consequences for the performing art knowledge system when huge amount of government fund is flowing in? These questions set a framework of analysis in the Cantonese Operatic art industry in Hong Kong, and its current institutional changes to teacher-student relationship in tertiary education. Along with the development of Foucauldian studies, Nikolas Rose attempts to analysis power relationship in a way to revitalize the creative and active life by “governing at a distance”. This research aims to shed light on this arm’s length governing concept in the power relationship between the government, the realm of discipleship, the new educational system and their trained artists. This paper found that the younger generations of artists are subjected to be “saviours” and “experts” for the fading Chinese heritage yet remain half-fledged as far as concerned by the industry. At the time when the traditional group is resisting by the emerging artists, power is reasserting itself through the ‘modernized’ ideals of knowledge that render ‘incapacitated’ experts on subsidies, hindering the sustainable development of the tradition heritage.

Keywords: Heritage Management, Performing Art, Biopower

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Introduction

When it comes to heritage art, we tend to assume that the sustainable development gets worse as the arts industry is lack of government funding for conservation. Our heritage art, especially performing art suffers from business failures as the cost of artist and production keep rising for live performance. This is the Baumol's theory of cost disease, stressing that the rise of wages in live performers cannot produce more shows in the given time, so problematic so that the inflation of ticket price fails to catch up with the rise of production cost. Due to the limitation of mass production technically, government support is essential and crucial for its sustainable development. But that's not the case for everyone. This research includes observation and interview data analysis that can inform political economy and its funding mechanism to respond to heritage art management in Cantonese opera.

Scholars have been studying the opportunities and constraints of government interventions, and I would like to share insights in an emerging group of artist in the old art form of Cantonese opera. Most research on performing arts as cultural heritage for conservation and management in the past decade focused on the facilitation of participatory practices (Diettrich, 2015), performing arts heritage for cultural tourism (Man-U, 2019), changes of performing arts heritage genres (Creutzenberg, 2019), performing art in heritage sites (Kelvin Ka Hou Leong, 2022), it's not capturing the full spectrum of what is happening in the risk of performing arts as cultural heritage – skills and knowledge. I instead to ask how has political support of systematic pedagogy of Cantonese opera required the price of integrated/complete knowledge about artists? In line with the inquiry on cost disease theory, institutionalization of heritage arts education, and government intervention with the governing tools of public funding, this research aims to shed light on what is so special about skills and knowledge of Cantonese operatic artists in the rupture of logics of training system and institutional rules.

In his lecture series of 1977-1978 *Security, Territory, Population*, Foucault questioned “‘how to govern oneself, how to be governed, by whom should we accept to be governed, how to be the best possible governor?’” (Foucault, 2007, p. 88). His inquiries set the momentum for a rationalization process for this study amidst of developmental discourse of heritage arts sustainability in the period of Hong Kong de-colonialization at the turn of the 21st century. In his process of investigation, Foucault began with biopower that consists of two basic modes: the disciplining of the individual person and the regulatory control of the community (Hardt, & Negri, 1998, p. 313; Foucault, 1978, p. 139). The former is expanded to educational system of Cantonese opera for continuous productivity. It affects artists' actions in various levels of adaptability in foreseeable adversity, where the fading Chinese heritage culture was emphasized. The latter is about the construction of discourse in the system of arts education. Giddens argues that people have ‘tacit’ or ‘practical’ knowledge about foreseeable risks; this recognises the implicit knowledge people already have about power and social realities (Giddens, 1996, p. 162). Foucault made it clear that “the population is not conceived of as a collection of subjects of right, nor as a set of hands making up the workforce; it is analysed as a set of elements that, form part of the general system of living being, and on the other hand, may provide a hold for concerted interventions” (Foucault, 2007, p. 297). As such, the behavioral changes between the emerging and existing artists are discussed to explain resistance and conflicts that hinder the sustainable development of Cantonese opera. For Rose, the major problem for advanced government in the 21st century is to balance between state security and subject's autonomy in the government-society relations; “enabling state and responsible citizens, based upon the strengthening of the natural bonds of community could settle the issue” (Rose, 1999, p. 186). The discussion concludes that the mechanisms of

security for heritage conservation and the construction of “talent pool” for productivity is misplaced. It results in a tactic intervention that challenge the heritage practice of production (technology of production) and results in the devastation of artistic skills and legendary repertoires.

Biopower in Arts Education

Prior to the sovereignty change in 1997, the British colonial government initiated a cultural democratization effort in the 1970s, vigorously promoting performing arts, especially those of Western origin. Cantonese opera was not put on the altar, excluded from systematically development in the public funding mechanism. At the turn of the century, the Hong Kong government started to focus on Chinese arts and culture, aiming to address the legacy of tradition opera, its challenges of succession and audience decline in particular. This institutional disciplinary initiated by the statutory bodies of government extended far end of the social network through micro-mechanisms. There were three apparatuses in this discussion; the Urban Council, the municipal council in Hong Kong responsible for public service in Hong Kong during the colonial era, the Arts Development Council subsidised "Cantonese Opera Training Courses" for community groups in 1996 (The Chinese Artists Association of Hong Kong), and the Hong Kong Academy for Performing Arts launched a diploma program in 1999. After all, the authority of the Education Bureau included Cantonese opera in the school's "Music Curriculum Guide" in 2003. They have incorporated traditional opera into formal education with an attempt to "audience expansion". The institutional system of reward and punishment followed through the government's Cantonese Opera Advisory Committee & Cantonese Opera Development Fund established to invest resource in “talent tool”. provide funding resources to operatic activities. The government moved from descriptive policy to prescriptive one in the perennial debate about cultivation for Chinese culture, subsequently refrained the traditional opera for sustainability from the threat of modernization.

However, the policy's effectiveness has been less than satisfactory. According to the official report prior to the social distancing measures were implemented during the COVID-19 pandemic (Hong Kong Arts Development Council, 2018), the audience for traditional opera programs is mostly composed of retirees, with the lowest proportion of teenagers aged 15 to 24. In terms of talent cultivation, both professional Cantonese opera schools in the private sector and the School of Chinese Opera at the Hong Kong Academy for Performing Arts have been facing a general shortage of enrolments (Hong Kong Audit Commission, 2016). Renowned veteran artist Franco Yuen Siu-fai candidly commented on the government's approach, and said, "too much public funding, but they don't understand the industry (Leung, 2020, p. 54)" pointing out that the generous subsidies have exceeded the industry's capacity and resulted in negative consequences. In other words, the government's substantial funding support drags the debates into a deeper state of chaos, whereas inheritance and conservation of the Cantonese opera have become a thorny issue widely discussed in the industry and academia.

Practical Knowledge and Discipleship

Classical ballet and Italian opera in the West and Kabuki and Cantonese opera in the East are known for its charismatic group of the arts. According to Weber, charismatic group works and produces in the situation that is total antithesis of “routine,” of organized social institutions and relations. Charismatic authority is formally contrasted with “rational” authorities (Weber,

1947, p. 332). Interestingly, we found that the emerging charismatic group in Cantonese opera had a strong desire to transform the routine of industrial discipline to the more institutional framework, where efficiency, company competence and political economy become systemic needs to resist the “rigid” teaching and disciplined practice in master-disciple relationship, where life-long and in-group commitments are in a tight-knit. In the face of existing professionals, this emerging charismatic group ages 30 to 40 believe in government interventions and rules are the best way to safeguard cultural heritage arts. Power of institutionalism thus runs through the knowledge system, and the generation of a desire to conform to the training mechanism that this knowledge establishes. Both the old and the new charismatic groups have loyalty in heritage art, but striking vision differences in their exigencies of the disciplinary authority.

The public subsidy for young upcoming artists has an effect of destruction of heritage regulations. Michel Foucault coined the term ‘biopower’ to refer to “the ways in which power manifests itself in the form of daily practices and routines through which individuals engage in self-surveillance and self-discipline, and thereby subjugate themselves (Pylypa, 1998)”. When discipleship is being ‘modernized’ for the social and cultural in the discourse of heritage conservation, the new training logic that turns young artists to occupy main roles in classic repertoires shortly after a few school years manifests the new training practice in academia is inclusive and “amiable”. In this respect Mr. Danny Li Chi-kei, a prominent performer and renowned artistic director/producer, shared his concerns:

Opportunities come easier now because few people learn. As a rule, everyone starts from a low level, and only those who are capable are qualified to rise to the leading role step by step. Even Mr. Lam Ka-sing Lam, the Cantonese opera master, diligently practiced with fellows nine hours a day, six days a week. There is a problem with the learning attitude of new students now, and I am very worried about it. (Barwo Cantonese Opera Artists Oral History Series III, p. 68)

Discipleship forms an exclusive group and artist’s identity is given by the masters only because through which the disciples are compensated by unlimited liability in the master-disciple relation. Life-long commitments in the established skills and aesthetics are altogether being challenged by the new elite identity in social relation, and the willingness of young individuals to pursue Cantonese opera as a lifelong career has significantly declined, unless the government provides security by the establishment of a signature opera company for Hong Kong. The obsession with the big troupe has referred to the Metropolitan Opera House in New York or The Paris Opera in France. They train themselves to be target oriented mentally and working with limited liability practically, in such a tactic to survive in the unforeseeable future of prospects, where they see themselves being “suffered” from despotism and hierarchy. As the only mass buyer of operatic productions in town, Government becomes far more accountable in a bureaucratic system, largely because they are won over the clear rules and procedural rationality in it to actualize their ideal ‘modernized’ heritage of traditional opera.

Discourse of Regulatory by Charismatic Groups

With increased government investment and the subsequent expansion of on-job performing fee, new emerging artists from academia can defeat the artists in once major roles in the plays. Applying Foucault’s rationalization process in power relation where power and resistance interplay, it could be argued that at the time when the traditional charismatic group

is resisting by the young bled, power is reasserting itself through the 'modernized' ideals of knowledge that render 'incapacitated' experts. In other words, the institutional changes take special care of new faces, thus has resulted from the creation of four forms of discourse.

First, unsustainability governance for the arts. In order to meet top-down goals to construct the 'talent pool' in a short period of time, the society is shaped and channeled by the short-cut training technology, it is manifested in the changing structure of production. On the contrary, most of the troupes compete with each other and flock to hiring new stars for on-job performance allowance to reduce cost, because the "new stars" perform on government allowance. Prominent artist and Professor Franco Yuen Siu-fai's observes the quality of performances has suffered, "some actors are standing in their wages, not in the play." Young artists are hired more often to perform, inducing to them rush between jobs, sacrificing rehearsal time and sometimes performing without adequate preparation. An artist-informant on second rank, similar to the role of soloist in the classical ballet, details her experience in our interview,

I have tried rehearsing with them, and the rehearsal time is not only long but, when their abilities are not sufficient for leading roles, it often falls on experienced individuals like me (the second-rank artist, similar to the soloists in the classical ballet) to accommodate them, simplifying acting movement to a level they can handle. If the government heavily subsidizes newcomers, it not only neglects the growth of individuals but also impedes their progress.

This mismatch between the quantity and quality of performances echoes the phenomenon of audiences being "scared away" from attending Cantonese opera performances.

Second, the newly bled artists perceive the Cantonese operatic art as cultural heritage rather than show business, giving them a powerful sense of class consciousness in an elite class. Cantonese opera is now often described as a 'heritage' in so far as cultural identity and high-end status are acquired, and social inclusion is considered to be achieved through participation in Cantonese opera. In an interview, Paris Wong Hau-wai, a graduate of the Film programme of the Hong Kong Academy for Performing Arts (APA), expressed that he continued learning Cantonese opera at the APA, hoping to become main female character through studying the degree programme. Mitche Choi, a graduate from the University College London with a degree in Linguistics. She aimed to become professional male character after studying at the Academy.

On the contrary, another informant who trained in traditional methods expressed, "nowadays, newcomers don't start from the bottom. The academies train them in major classic plays, focusing on roles centred around Dan and Sheng (leading female and male characters). They graduate after learning for several years. This differs from our apprenticeship system, where both main and supporting roles are trained. Comparatively, they have fewer performance opportunities. They are not willing to take on leading roles, neglecting to learn other secondary roles, and don't see the necessity of starting from the bottom." The education and promotion of Chinese heritage is now regarded as a self-evident manifestation of loyalty and roles of preservers, but increasingly it is the enticing beeline of heritage management, aided by the iconic status.

Biopower refers to a form of political support or cultural policies in this study that revolves around young artists to entail four truth discourses about the essential character of "savior"

for Cantonese opera in the new century. First, the Cantonese opera as cultural heritage is part of the political economy. Strategies for government intervention upon the industry has turned rational. Second, the sustainable development of Cantonese opera needs scientific management and efficiency in respond to the needs of global discourse of sustainable development for heritage performing art, instead of “letting it dies” in “action lag”. Two critical aspects involved respectively are what degree the artists should be regulated, and by whom they should be disciplined. Third, master-disciple relation is subjected as a key issue to be disciplined in its training procedure and learning habit, as such, this institutional change allows the new science of heritage management come into exist. Fourth, the younger generations of artists are subjected to be “saviors” and “experts” for the fading Chinese heritage yet remain half-fledged as far as concerned by the industry. Finally, new charismatic group works on themselves to gain credential from the academia may have to be equipped with greater competencies in the discipleship to sustain the identity formulation and technology of self.

The political support of systematic pedagogy of Cantonese opera required the price of complete knowledge about artists, I see the new charismatic group as central to our understanding of heritage conservation of tradition culture of art, even so the enabler of the aesthetic intelligence and artistry. This perspective can be said to resemble the concept of knowledge capitalism and adaptive skills not limited to performing productions but the restoration technology for practical knowledge in forms of oral history, performance archive, records of affective interpretation and analysis delivery by the traditional masters, who are growing old in the rupture of logics of training system and institutional rules.

Conclusion

At the turn of the century, the Hong Kong government initially focused on education and training, aiming to address the challenges of succession and audience decline in the traditional opera. The government intervenes at the distance through heavy load of public subsidy for young and new artists has an effect of ‘incapacitated’ expertise, it is even more extensive to influence traditional regulations, rules and practices in training and identity formulation. The industry sees the institutional changes as government’s special care for new faces. In midst of the elite class consciousness with systematic education and prestige social status, emerging artists have more short-term performance opportunities in major roles and plays than disciples from the apprenticeship system, yet being excluded from the heritage custom and charismatic kinship. The creative vibe and process for heritage conservation is being shape to embrace a combinatorial view of traditional heritage art, new artists with adaptable skills look for various elements to achieve “newness in legacy” to demonstrate the configurations of skills and knowledge that not only fall on aesthetic culture but the creativity of tradition. In the power and knowledge relation of performing art, the new skills as such lead and shape the audience’s expectation to a broaden horizon.

The heritage art industry takes on new cultural traits, behaviour patterns, educational measures, and creates new trainer-learner structures in social as a result. As Foucault suggested knowledge is largely produced to create a type of group (body) for the social needs. They way Foucault put it is the new charismatic group of artists is socially constructed to safeguard the heritage art conservation process. The regulation is part of a long evolution on creativity in the relation of knowledge and subsidized market that allow flexibility “between elements in order to make up new beings, bodies, concepts, products, or things” (Bartels & Bencherki, 2013, p.1). The question of what makes the training logic rational is

central to heritage art management. The seeming fragmentation between the new and the existing artists are both versatile makers of the traditional legacy. Paradoxically, the heavy load of public subsidy demands for sustainability risks destroying its breeding grounds.

Despite of the increase of academic trained artists, who have strong desire and interest in leading roles only, affect the development of heritage tradition, while the secondary and minor roles in the plays are being deserted. For these reasons, reduction of big scale production of traditional repertories will be apparent in the foreseeable future. Meanwhile the increase of small-scale production with simplified version of traditional repertories come into exist. The increase of operatic workshops and training courses for amateurs is conceivable on the community level can be expected to sustain role of heritage artists, thus entrepreneurial skills for small and mid-size troupes are an essence for sustainability.

Acknowledgements

This is the second article in a series that examines knowledge and practices in the performing arts, especially the Cantonese opera that has not yet be explored in academic research. Special thanks to Ms. Alisa Shum, Mr. Lam Hak Fai, and the Chinese Artist Association of Hong Kong for their collaborative efforts in the course of data collection. Their expertise has greatly enriched the series. I would like to thank all informants and friends who have supported me intellectually and emotionally as I worked on my study.

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Contact emails: isabella.yun@hkuspace.hku.hk
yunisabella@gmail.com

***Efforts to Improve Learners' Creativity Through the Art Practice of Making Batik
Jumputan at Elementary School***

Yawma Wulida, Indonesian University of Education, Indonesia
Sapriya, Indonesian University of Education, Indonesia

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Basically, batik has become one of the characteristics of Indonesia. Batik is a picture or cultural expression that has symbolic meaning and high beauty value. With a very complicated manufacturing technique, batik deserves to be highly valued. The understanding of batik, especially for elementary school students, is lacking and needs special attention. There is a need for deeper knowledge and practice regarding batik making. In Indonesia, there are many types of batik according to the manufacturing technique, one of which is Batik Jumputan. Batik Jumputan is batik that is done by ikat dipping, tied with a rope and dyed with colours. This batik does not use malam but the fabric is tied or sewn and crimped using ropes. This article aims to discuss art practice in improving the creativity of elementary school students through making Jumputan Batik. The selection of this batik model is based on efficiency and ease in the learning process. The research method used is descriptive qualitative which aims to describe the activities of primary school learners in developing their creativity related to the technique of making Batik Jumputan. This activity was carried out on grade 5 elementary school students. The practice of making Batik Jumputan has a positive impact on students because in addition to the results of the batik making process which is very interesting, students will also be encouraged to create ideas and creativity in creating various kinds of jumputan batik motifs.

Keywords: Batik Jumputan, Batik Making Practice, Creativity, Elementary School

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Introduction

Indonesia is a country blessed with various arts and cultures, one of which is batik. Batik art is a cultural art that is rich in values for human life and the environment. This means that in the art of batik, people are able to feel the pulse of the spirit of the Indonesian nation from its beliefs, outlook on life and future goals. Batik art is increasingly developing along with the times, one form of development is batik motifs in modern times, better known as contemporary batik motifs where the motifs are different from classic batik motifs which have a certain philosophy. Batik is a cultural image or expression that has symbolic meaning and high aesthetic value. With very complicated manufacturing techniques, batik deserves to be highly appreciated.

Batik has long been known as the cultural heritage of the archipelago. For centuries, the world has known batik originating from Indonesia. Unfortunately, we don't love this noble heritage. We don't maintain it well, giving other nations the opportunity to own it. Still warm in our memories, Malaysians consider batik to be theirs. Batik innovation can be developed through batik techniques, materials, fabrics, or other innovations. Batik is very special. The shape of the patterned cloth is not just a cloth without meaning. Behind each motif and type, there are various philosophical meanings that have value and a long history. There is a historical journey that we can read about through stories about batik patterns and motifs. Batik patterns and motifs cannot be separated from the elements inherent in the region where they are made. According to Sari (2013), there are four ways of making batik, namely written using canting (written batik), stamped (stamped batik), printed (screen-printed batik or printed batik), tied and dyed (jumputan batik).

In Indonesia, there are many types of batik according to their manufacturing techniques, one of which is Batik Jumputan. Jumputan batik is batik that is done by tie-dyeing, tied with rope and dyed with color. This batik does not use wax but the cloth is tied or sewn and creased using rope. Jumputan Batik is the creation of craftsmen who combine various techniques that are able to produce fabric that is unique and has its own artistic value (beauty). Tie-dye is a coloring process using a tie-dye technique using rope, meaning that the dye absorbed by the fabric is blocked using marbles or pebbles to form a motif. The process of making jumputan itself is basically almost the same as written batik, namely by giving certain colors to the cloth and the coloring process is carried out repeatedly. If in written batik the color blocking process is wax written with canting, then tie dye is used. as colored prints are raffia, rubber, thread tied to the cloth (Purnaningrum et.al, 2019). This technique demands a person's creativity and reasoning power, including elementary school students.

Student learning activities require student activity. "Active" means that for students, learning is actually an active process of building knowledge, so that students actively ask questions, question, express ideas, and are involved in learning, because learning is indeed an active process for students in building their knowledge. Therefore, learning is contrary to the essence of learning if it does not provide opportunities for students to play an active role. Learning activities require students to be creative and active. Creativity in learning can create new and interesting situations rather than monotony, thereby allowing students to be more involved in learning activities. Moreover, in arts and culture lessons, creativity is very necessary. An example of arts and culture learning that can increase student creativity is Batik. In batik, students must draw a motif first. Drawing motifs gives students the opportunity to take risks and be more creative. Students can create their own designs according to their interests and creativity (Murti, 2016). Students' learning to be creative

requires a process to support the achievement of this ability. Some things that need to be prepared are environmental conditions or an academic atmosphere that supports students' creative learning (Yusro, 2017).

Understanding of batik, especially for elementary school students, is felt to be lacking and requires special attention. There is a need for more in-depth knowledge and practice regarding batik making. Simultaneously to train students' creativity, art practice activities were carried out using Batik Jumptan media. This activity was carried out at Banda Aceh State Elementary School 2, Aceh Province. Apart from training students' creative abilities, this activity also aims to transfer knowledge and transfer information to elementary school students which can be a means of education and learning.

Method

The method used is a qualitative research method. Qualitative research is an approach to natural phenomena or symptoms during research. Qualitative research is basic and natural and cannot be carried out in the laboratory but in the field. Therefore, this type of research is often referred to as naturalistic research or field research. In short, qualitative research is a type of social science research approach that uses a natural paradigm based on phenomenological theory (and similar) to study social problems in a field from one background and one perspective, including the object to be examined.

Sugiyono (2011) stated that data collection techniques are the most important step in research, because the main goal of research is to obtain data. In conducting this research using qualitative methods, there are several ways to collect data or information related to the research. Data collection is the method used to collect data, retrieve data, and capture research data. This research was conducted on students at State Elementary School 2 Banda Aceh, Aceh Province. The subjects in this research were class 5C students with a total of 34 students. Meanwhile, the object of this research is making jumputan batik as a learning medium to hone the creativity of elementary school students.

In this research, the discussion was also taken from several sources of information consisting of: books and journal sources related to the topic of discussion raised. The data collection techniques used in this research are observation, interviews and documentation. Researchers conducted interviews with several students who took part in this research. This interview guide is used to make the research process easier.

Results and Discussion

Jumputan batik is batik that is done by tie-dyeing. The cloth is tied with rope and dyed with color. This batik does not use wax but the cloth is tied, sewn, or creased using rope (Prawoto et.al, 2019). The implementation of this research began with providing material in the classroom. Researchers provide explanations and videos regarding how to make Batik Jumptan. Along with this, the researcher also mentioned the tools and materials that must be provided to make batik.

The tools and materials used are:

Plain cloth made from mori or cotton measuring 1x1 m

Rope, can be raffia thread or rubber bands

Several marbles or stones

Coloring agent (wantek)

Salt

Warm water

Scissors

Gloves

How to Make Batik Jumputan

Open the mori cloth wide, then start making motifs by folding the cloth or placing stones or marbles on the cloth. Tie the fabric tightly and securely using rope.

Add the coloring agent and salt to the warm water then stir until smooth. Then dip the tied cloth into the dye. Leave it for around 15-30 minutes.

After the dye has soaked into the fabric, open the rope or rubber band on the fabric and dry the fabric that already has the motif.



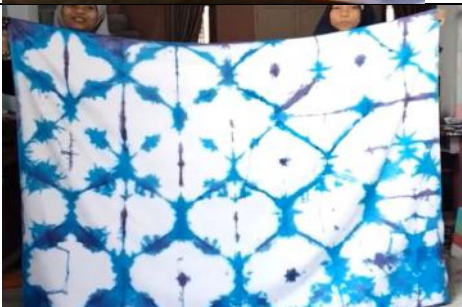
Batik is ready to be used.

After providing material in class related to making jumputan batik, the researcher began to give students assignments to make jumputan batik in pairs at home. This is because the school situation does not allow the batik making process to be carried out directly. However, the researchers asked each pair to make a video of the process of making jumputan batik at home. Later the results of making batik will be used as tablecloths in the classroom. Achievements of research from various discoveries at the end of the students' efforts in their creativity to make jumputan batik using techniques that have been learned in class (provided materials) and when practicing (out door). From the data that has been found, some individual students have different opinions and thought patterns, there are those who really understand the technique of making jumputan batik, there are also those who only listen to what the teacher says without listening carefully. The data that has been found will be described in the final results of the research in order to describe students' activities in their creativity in making jumputan batik using the techniques that were presented when providing material in class. The following is a description of the results of the observations and interviews that have been described.

Observation Results

Table 1. Aspects Assessed During Observation (Several samples from research results)

No.	Line	Color	Creativity	Picture
	Symmetric	In accordance	Mastering (Listening, asking questions, mastering techniques)	
	Symmetric	Not enough	Mastering Technique	
	Not symmetric	Not enough	Medium (asks questions, lacks technical mastery)	
	Not symmetric	Not enough	Medium (asks questions, lacks technical mastery)	
	Symmetric	In accordance	Mastering (Listening, asking questions, mastering techniques)	
	Symmetric	Not enough	Asking questions, mastering techniques	

	Not symmetric	Not enough	Lack of listening, asking questions or mastering techniques	
	Symmetric	Not enough	Mastering Technique	
	Not symmetric	Not enough	Lack of listening, asking questions or mastering techniques	

Based on the results of the observations above, it can be concluded that some students listened during the process of providing material in class and had mastered the technique of making jumputan batik. As can be seen in the table above, some of the jumputan batik products have symmetrical patterns and appropriate and attractive colors. However, there are also some students who do not master the technique of making jumputan batik. In the results of observations, it was found that several jumputan batik motifs were not symmetrical, in fact the colors of the batik were not bright or faded and did not have interesting color variations.

Interview Result

During the interview process, the researcher took a sample of 4 children from 34 students to be interviewed. The results of the interview with student A revealed that, when in the process of practicing making patterns, they found it difficult to explain what kind of pattern would be formed, because the children did not immediately understand what was being conveyed, in the ongoing process the pattern making was done in pairs, until the desired pattern was formed. After that, in the practice of mixing colors, he and his friends followed the directions of the researcher so that the results achieved looked satisfactory. The students also said that this was a new experience for them, when they did not understand the material and the practical process, they chose to pay attention to what was said by the researcher or teacher and asked if there was anything they did not understand during the explanation of the material.

Next, an interview with student B, basically when working on the practice of making batik, he and his friends experienced confusion in making patterns so that the group worked according to what we understood from the jumputan batik making technique according to the directions given by the researcher. Apart from that, both of them were too fussed about giving the colors so that the colors were mixed sloppy and the motifs were not shaped as expected.

Next, in an interview with student C, he said that basically he and his friends had tried to do a work that was expected, but during practice there were things that were unexpected and not as expected. According to his account, he only followed the directions given by the researcher, his friend just silently followed his directions if there was something he didn't know. Student C also said that he was a little confused about the amount of water and salt used. Because too much water does not match the amount of dye used, their work looks pale.

Finally, an interview with student D. He said that with good cooperation between him and his friends, the results they got were very satisfying. The beautiful motifs and attractive and bright colors make them very happy to see the final result of their work. The mixing of water and color is also appropriate so that the color produced in batik is not pale.

Student Creativity in Making Jumputan Batik

Based on the results of observations that have been made during the research process, including the results of interviews and the final results of the work that has been produced, it can be said that almost the majority of elementary school students, especially class 5C with a total of 34 students, at Banda Aceh State Elementary School 2 have mastered the Jumputan Batik Technique. The technique in making jumputan batik is that students are directed at tying the cloth, using the techniques that have been given in class, of course students have been equipped with the techniques that will be formed in making batik. The results can be seen in the image in table 1.

According to Yeni Rachmawati (2011), the creative process will only occur if it is generated through problems that stimulate five types of creative behavior, as explained by Parnes (in Nursito, 2020) as follows: 1) Fluency, namely the ability to express ideas similar to solving a problem; 2) Flexibility, namely the ability to generate various kinds of ideas to solve a problem outside the usual categories; 3) Originality, namely the ability to provide a unique or extraordinary response; 4) Elaboration (detail), namely the ability to express detailed idea direction to turn the idea into reality; 5) Sensitivity, namely sensitivity to capturing and generating problems in response to a situation.

Fluency, Once the practice starts, each group will have different ideas because all students in each group in pairs will contribute their ideas. This is shown after students have created the desired pattern.

Flexibility, When creating new ideas and thoughts, students experience obstacles related to ideas and concepts that have never been studied before, so that when creating batik motifs there needs to be proper guidance from teachers and researchers.

Originality, the results obtained start from the initial process of making batik to the end of the process. Therefore, it appears that the pair group created their original work without looking at the media or receiving any input from the other group.

Elaboration, ideas and thoughts expressed through work are something new for students, especially in the technique of making Jumputan Batik.

SensitivityOf course, we can pay attention to this when the class teacher provides material for them in making Batik Jumputan, but in practice the techniques presented by researchers or teachers when providing material in class are often forgotten. Therefore, in this case the focus will be on how students can solve problems obtained in batik making techniques.

Each individual student has their own creativity that arises naturally from the student. Even though the teacher has provided materials and explanations regarding making good jumputan, the final results of their work will be different according to their respective creativity which cannot be generalized. Therefore, teachers should create learning that can continue to hone students' creativity, such as one example of the Practical Art of Making Batik Jumputan which has been discussed above.

Conclusion

Jumputan batik is batik that is done by tie-dyeing. The cloth is tied with rope and dyed with color. This batik does not use wax but the cloth is tied, sewn, or creased using rope. The practice of making Jumputan Batik is a learning medium to hone the creativity of elementary school students. Based on the results of research carried out at Banda Aceh State Elementary School 2, students' creativity in making jumputan batik has variations. Creativity is assessed in the form of students' mastery in understanding the material (listening), the number of questions asked during the process of providing the material, as well as mastery of techniques in making jumputan batik. From this it can be concluded that almost the majority of students master the techniques for making jumputan batik. This is based on the results of observations, researchers see that most of the motifs in jumputan batik have symmetrical lines, good patterns, and bright and attractive colors. During the process of delivering material related to making jumputan batik, several students also actively asked questions about things they did not understand. However, there are also some students who still have not mastered the technique of making jumputan batik. This can be seen from the asymmetrical batik motifs and the unattractive and pale color combination. The practice of making Jumputan Batik has a positive impact on students because apart from the very interesting results of the batik making process, students will also be encouraged to create ideas and creativity in creating various kinds of Jumputan batik motifs.

Acknowledgments

The authors would like to express their deepest gratitude to Lembaga Pengelola Dana Pendidikan (LPDP) for supporting this article's publication.

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Contact email: yawmawulida@gmail.com

The Meaning of the Deletion of the Black Victim in “Boys Don't Cry”

Miho Morii, Otsuma Women's University, Japan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Boys Don't Cry (1999), directed by Kimberly Peirce and starring Hilary Swank, tells the story of Brandon Teena, who was born female but feels uncomfortable with his gender and tries to become a man. The film is based on the true story of Brandon Teena. He goes to a town where no one knows him and is once accepted as a man by the local youth, but he is eventually discovered to be a woman and raped and murdered by his male friends. This film is very important in that it brought the previously little-known concept of transgenderism to the public's attention. However, although only Brandon and his friend Candace, who let Brandon stay at her house, are depicted as being killed in the film, in fact, apart from Brandon and Lisa Lambert (portrayed as Candace in the film), the other individual named Phillip DeVine, a young Black man who was present at Lisa's house that day, was also killed. Despite this, Phillip DeVine does not appear in *Boys Don't Cry*. Here, I will examine Aphrodite Jones' *All She Wanted* and several newspaper articles that were written based on careful coverage of the case, to find out more about Phillip DeVine, who was erased from *Boys Don't Cry*. Furthermore, by analyzing why Peirce did not include DeVine, who is Black, in the film, I will also investigate Peirce's subconscious mind toward Black people, which underlies the psychology behind the exclusion of DeVine.

Keywords: *Boys Don't Cry*, Kimberly Peirce, Phillip DeVine, Brandon Teena

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Introduction

Boys Don't Cry (1999), directed by Kimberly Peirce and starring Hilary Swank, is based on the true story of Brandon Teena, a transgender man who was born female but feels uncomfortable with his gender and tries to become a man. He was once accepted as a man by the local young people but was eventually discovered to be a woman and raped and murdered by his male friends. This film is very important in that it brought the previously little-known concept of transgenderism to the public's attention.

However, in the film, only Brandon and his friend Candace, who was staying with Brandon at his house, are killed. In fact, in addition to Brandon and Lisa Lambert (Candace in the film), a young black man named Phillip DeVine, who was at Lisa's house that day with Brandon, was also killed. Despite this, Phillip DeVine does not appear in *Boys Don't Cry*. By clarifying what kind of person DeVine actually was and considering the significance of why Peirce did not include him in the film, I will investigate the racist mindset of director Peirce behind the exclusion of the Black victim in *Boys Don't Cry* and the problems of American society itself that give rise to such a mindset.

Who is Phillip DeVine?

David M. Jones (2010) states that “DeVine's life story is entirely absent from *Boys Don't Cry*, a film that has since become a master text among mass media efforts to reconstruct the events and deeper significance surrounding the Humboldt murders” (p. 175). As Jones states, in *Boys Don't Cry*, only Brandon Teena and Candace (the actual victim was Lisa Lambert) are murdered by John Lotter and Tom Nissen, and the other victim, Phillip DeVine, a Black man, does not appear. Here, before considering why Phillip DeVine is excluded from *Boys Don't Cry*, I will examine what kind of person Phillip DeVine was and what circumstances led him to be involved in the murders.

John Gregory Dunne (1997), a reporter for *The New Yorker*, noted that “Phillip DeVine was physically handicapped, with only a stump for a right leg, and a prosthetic device that attached below the knee.” According to Dunne, Phillip's physical disabilities at birth specifically included the following:

Phillip DeVine's life was not without hardship of its own. Because of a defective prescription drug that his mother had taken during pregnancy, he was born two months premature, with a damaged heart, crossed eyes, lungs that were permanently scarred, and a right leg that ended at the knee. In spite of his physical torment, he had grown into a strapping youth, so agile on his prosthetic leg that he was able to compete vigorously in sandlot sports.

Furthermore, according to Aphrodite Jones (1996), who did extensive research on Brandon Teena and was the first to publish a book on the Humboldt case, Phillip's mother, Phyllis, was a devotee of transcendental meditation (TM) and would sometimes leave Phillip and his brother behind while she went to TM meetings. Eventually, Phyllis and her husband Paul divorced and each remarried; Phillip and his brother were taken in by his father, and Jones describes Phillip thereafter as follows:

In 1984, Phillip moved to Maryland with his dad. Paul had gotten divorced again and was starting life over, having decided it best to live near his sister Denise. Denise had

become a successful entrepreneur in leasing and selling computers, and Paul needed her help in raising Phillip. As it turned out, Denis was a tremendous force in Phillip's life. She dressed him in the finest clothes, sent the boy to private schools, had people working with his learning disabilities, and was able to give Phillip a strong sense of self. (p. 199)

Thus, Phillip was given an education and a stable life by his aunt, but when he got tired of living with her in Maryland, he contacted his mother and lived with her in California for a while. However, he got tired of that too and decided to go to Job Corps in Denison, Iowa.

What can be said about Phillip up to this point is that despite his mother's excessive devotion to religion, his parents' divorce, and, above all, his physical disability that he is missing his right leg from the knee down, he managed to live a life of his own without committing a crime. The reason why Phillip's life started to go out of order was when he met Leslie Tisdell, the sister of Lana Tisdell, the girlfriend of Brandon Teena, the main character in *Boys Don't Cry*.

The following description by Jones (1996) indicates that Phillip had a full life in Job Corps and was well-liked by those around him.

"Phillip was a leader. He was an outstanding charismatic-type student," Job Corps Officer Ike Johnson recalled. "He was the kind of student a lot of other students would like to emulate because he had those leadership qualities. People were just drawn to him. He had the attention of adults, which is unusual for a young man. It's almost like he was destined to become so much more in his life."

Not only was Phillip a smart kid, he was a smart dresser and a good-looking guy. He had his choice of girls on campus and, having been there a while, had dated plenty. But it wasn't just the girls who liked Phillip, he was loved by those around him because he had a knack, a way of talking to people that got them on his side. (p. 194)

Meanwhile, Leslie Tisdell joined Job Corps to change her life. However, after meeting Phillip, she lost all interest in studying and started wanting Phillip to be the father of her child. Jones (1996) explains this as follows:

Leslie just wanted to learn to be more responsible, find a goal to strive for, and see the true value of life. On the day she headed up Opportunity Drive [the address of the Job Corps Center] toward the campus, she felt this was her big chance.

Almost from the moment Leslie met DeVine, she couldn't help but notice him—he was one of those people who stand out in a crowd. Being just a year older than her, age twenty-two, she was already thinking of him as marriage material. He was the right age, the right size, the right color for her

When Leslie eventually confided to Phillip that she had an interracial baby she wanted to regain custody of and raise, he seemed to jump at the idea. Phillip told her he'd help father the girl, and Leslie took what he said at face value. (pp. 194-5)

Despite her initial enthusiasm, in late November Leslie had to quit Job Corps due to abdominal pain from a previous tubular pregnancy. Going home, Leslie made Phillip promise

to come to Falls City, where she had a home, before Christmas. This is how Phillip ended up in the town where he was killed.

On December 14, Phillip went to Leslie's place, but Leslie's house was occupied by Lenny, a half-black man who seemed to be her boyfriend, and Phillip and Leslie had a fight about it. In Jones' book, there are references to Phillip's successful relationship with Lenny and with John Lotter and Tom Nissen, who eventually killed him.

That week, Lenny and Phil hung out with John Lotter and Tom Nissen a little bit. They all went down to Stanton Lake a few times, and John was usually a blast to be around, Tom was a bit of a jerk, but they all drank a lot and made jokes and didn't really pay attention to their differences. It wasn't like Lenny and Phil were being trashed or being called names. Everything was cool. (Jones, 1996, p. 205)

Thus, although Phillip was Black, he was a resourceful man who could get along well with John and Tom, who were white, and even with a man who appeared to be an ex-lover of his girlfriend.

So why did Phillip DeVine have to be killed? Phillip ended up fighting with Leslie again and left Leslie's house on December 30 to go to Lisa Lambert's house in Humboldt with Brandon, who was raped by John and Tom. Leslie describes what happened at that time:

She [Leslie] didn't appreciate Phil, so when DeVine decided to go off with Brandon to stay at Lambert's, Leslie drove the two of them up there, racing the car as fast as she could. She dropped them off around 6:00 in the morning and watched DeVine and Brandon walk to the front door. Lisa Lambert was waiting for them. (Jones, 1996, p. 16)

Lisa Lambert, Brandon Teena, and Phillip DeVine gathered at Lambert's house. The next day, December 31, at midnight, they were murdered by John Lotter and Tom Nissen. It can be said that Phillip and Lisa were killed because they happened to be with Brandon.

Jennifer Devere Brody (2007) discusses the removal of DeVine from *Boys Don't Cry*:

. . . the erasure of DeVine from the narrative places the white female bodies as the only true victims of crime: and the film's inability to show DeVine as violated rather than violator perpetuates the myth of the Black man as always already a perpetrator of crime. Perhaps it was seen as impossible to read an image of a straight middle-class Black male with a white girlfriend as an image of 'innocent' tragedy, particularly in the outlaw story that is Brandon's. (p. 291)

As mentioned above, Phillip DeVine was a very normal young Black man who lived a very straight life without committing crimes or using drugs, despite his many problems, including a disability, divorced parents, and a mother who was addicted to religion. In other words, as Brody states, DeVine did not fit the image that whites have of Blacks, such as violent or criminal. So what is it that makes whites hesitate to portray the "Black male" as a victim because of the strong image of him as a perpetrator?

Why Phillip DeVine Has Been Erased From the Film

We can infer why Kimberly Peirce did not include Phillip DeVine in *Boys Don't Cry* from the following portion of the *Los Angeles Times* article.

Many of Peirce's early drafts included the character of Philip Devine, a 22-year-old black man who had been living at the home of Lisa Lambert, where Teena also was living when the shooting took place. Devine was Leslie Tisdale's boyfriend. Teena, Lambert and Devine all were killed, but Peirce eventually cut Devine out of the movie and changed the name of the Lambert character.

"I frown on that," Leslie Tisdale said of Devine's omission

But leaving him in would've required adding Leslie Tisdale as a character to explain who Devine was, said Peirce. "I already had seven main characters," she said. "I didn't have room for Lana's sister." (Harrison, 2000)

In other words, Peirce reduced the number of victims from three to two in the film because there were too many characters. In her words, "I didn't have room for Lana's sister," not "I didn't have room for Phillip DeVine." For Peirce, the white protagonist's sister is more important than the Black victim. This shows how unimportant a Black victim is to Peirce. Here, I will explore the fundamental reasons behind letting the director of *Boys Don't Cry* say she did not depict the Black victim of the murders in Humboldt because there was no room. To find the cause, I will analyze how whites, including Peirce, view Blacks and racism in America.

Peirce said in one interview about her college days, "I was up at Columbia studying film, in a pretty straight, white, heteronormative male kind of environment I was getting the best education" (Reddish, 2019). Peirce's remarks suggest that she was surrounded by white peers on a daily basis, and that she was in an environment during her school years where she did not have to see racial issues as her own problem. Robin DiAngelo (2018), a researcher in critical discourse analysis and whiteness studies, explains colorblind racism as " . . . if we pretend not to notice race, then there can be no racism" (pp. 40-1).

One line of King's speech in particular—that one day he might be judged by the content of his character and not the color of his skin—was seized upon by the white public because the words were seen to provide a simple and immediate solution to racial tensions: pretend that we don't see race, and racism will end. Color blindness was now promoted as the remedy for racism, with white people insisting that they didn't see race or, if they did, that it had no meaning to them. (p. 41)

Regarding the exclusion of Phillip DeVine from *Boys Don't Cry*, Peirce's argument that DeVine could not be included without Leslie, because Leslie, Lana's sister, is the only person directly connected to DeVine, initially seems reasonable. In other words, it was not because he was Black that he was excluded from the film; rather, it was because there were too many characters. Just as other important white characters were removed, DeVine was also removed for the same reason. This is precisely practicing color blindness while ultimately firmly excluding a Black individual, effectively perpetuating Black discrimination. In this way, what Peirce is doing in *Boys Don't Cry*, even if there is no conscious intention to exclude a Black

individual, can be seen as ultimately leading to discrimination by excluding a Black man, while following the idea of being colorblind in American society.

Psychologist Jennifer Eberhardt (2019) explains the underlying psychology of hosts on the platform provided by Airbnb, which connects travelers seeking accommodations with homeowners willing to rent out their homes. She notes that white hosts registered with Airbnb are often inclined to avoid renting their homes to Black travelers.

After all, there are non-racial ways to explain away the rejection of a black applicant: *They have young kids, and my home has too many breakable items. They're on spring break, and I don't want people partying all week long.* It's easy to tell yourself that you don't see color, come up with a host of other justifications, and relieve yourself of any self-recrimination for your bias. (p. 192)

The psychological state of these hosts is probably akin to the implicit excuse given by Peirce that there was “no room” to include DeVine. In other words, the reason for not including DeVine is not directly related to skin color, but rather, another excuse, such as the lack of space, is created. The attitude of white Americans, who tend to make excuses to avoid recognizing prejudice within themselves in racial issues, is precisely what Peirce is doing to exclude DeVine. Behind Peirce's exclusion of DeVine lies the projection of the attitude where white Americans attempt to rationalize their actions with plausible explanations to make their racially discriminatory acts appear harmless.

DiAngelo (2018) states that in American society, the whiteness of white people is established as a status, which she describes as, “Being perceived as white carries more than a mere racial classification; it is a social and institutional status and identity imbued with legal, political, economic, and social rights and privileges that are denied to others” (p. 24). She explains that despite this, white people do not recognize the superiority of their whiteness.

Whiteness rests upon a foundational premise: the definition of whites as the norm or standard for human, and people of color as a deviation from that norm. Whiteness is not acknowledged by white people, and the white reference point is assumed to be universal and is imposed on everyone. White people find it very difficult to think about whiteness as a specific state of being that could have an impact on one's life and perceptions. (p. 25)

As Brody (2007) suggests that “the erasure of DeVine from the narrative places the white female bodies as the only true victims of crime” (p. 293), for Peirce, who is white, the significant victims of the Humboldt murder are perhaps only the white individuals, Brandon Teena and Lisa Lambert, while DeVine, who is Black, is seen as less important by comparison. This could be seen as a typical example of white supremacy, as described by DiAngelo, where white people believe that “the white reference point is assumed to be universal and is imposed on everyone.”

Peirce does not see the existence of the Black Phillip DeVine. Of course, although she is aware of his existence, to Peirce, DeVine's presence is insignificant, something to be ignored. Helen Ngo (2017), who specializes in critical philosophy of race and feminist philosophy, sees racism as a habit and describes the advantage that whites gain from their racism as follows:

Racism is not a matter of willful “intention” . . . , but is deeply embedded in our habitual bodies. . . . this level of inscription does not diminish the imperative of responsibility to work on our habit. . . . in a system of longstanding, entrenched, and continuing racism, whites who “do nothing” continue to benefit from the accrued advantages of white racism (pp. 42-3)

As Ngo suggests, Peirce's exclusion of DeVine from her film may have been not racially motivated, but rather habitual as a white person, meaning an unintentional exclusion. In other words, this exclusion of a Black individual is not just Peirce's issue. As Ngo states that racial discrimination is deeply embedded within the habitual body of white people, so Peirce may have simply practiced it within *Boys Don't Cry* without particularly recognizing it as a problem.

Conclusion

Boys Don't Cry was released in 1999. At the time of its release, the film received a great deal of attention for its portrayal of transgender Brandon Teena. However, the absence of another victim of the incident, Black individual Phillip DeVine, was not as widely examined in the context of this film. The strong impact of revealing transgender existence is understandable, but the lack of criticism regarding DeVine's absence suggests that the American media and audience, by not pointing out the absence of a Black individual, are effectively accepting unconscious racial discrimination without question. Therefore, what becomes apparent through Peirce's exclusion of DeVine is the lightness of Black presence in America and the pervasive white-centric racial perspective maintained by white people.

In fact, when Peirce filmed *Boys Don't Cry*, her strong desire may have been to capture the story of transgender individual Brandon Teena, rather than having racially discriminatory intentions to exclude a Black individual. However, it is possible that neither Peirce nor white Americans in general fully understood that the unconscious exclusion of DeVine was a form of racism. By depicting the story through the lens of white standards, *Boys Don't Cry* unintentionally exposed the deeply embedded racial prejudices within white Americans, as exemplified by their habitual embodiment.

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Social Expectations in the Artist's Image Construction and Art Interpretation in Ming and Qing China

Yuqing Sun, Charles University, Czech Republic

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Some of the renowned literati artists in Chinese art history possess distinctive images. As stated by Otto Kurz and Ernst Kris, it was society's attitude toward the artist, consisting of the comments and views by contemporaries and posterity, that constructs the image of that artist. This is especially noticeable in the anecdotes included in artists' biographies. Since Chinese literati, who were the authors of the writings that constructed the image of traditional Chinese artist, dominated art and social discourse, the artist's image was molded to meet their social expectations developed in different eras. These social expectations would also be reflected in subsequent art creations and the interpretation of the works. This paper explores the social expectations surrounding the construction and remolding of an artist's image in different times, with Ni Zan 倪瓚 (1301-1374) and Tang Yin 唐寅 (1470-1523) as representative examples. These artists are well-known for their widely circulated anecdotes. This study delves into characteristic traits of certain periods in Chinese culture and history in order to reconsider the reasons behind the gradual construction of artists' images and their role in the analysis of actual art works.

Keywords: Chinese Artist's Image, Biographical Anecdotes, Social Expectations, Ming and Qing China

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Introduction

When comprehensively reviewing the depictions of artists in writings from Ming and Qing China, it is not hard to find out that many renowned literati artists possess strikingly distinctive images. Ni Zan 倪瓚 (1301–1374), for instance, is characterized as lofty, aloof, and loyal, while Tang Yin 唐寅 (1470–1523) is known for his unrestrained, romantic, and dissolute persona. These images are closely tied to the inheritance of their painting styles and the interpretation of their works. Ni Zan's landscape paintings were considered to exemplify his noble character. Tang Yin's 唐寅 (1470–1523) paintings of ladies were regarded as reflecting his debauched lifestyle and scandals involving courtesans. However, their images were constructed in a process in which the artists' self-presentation, their works and experiences, as well as the expectations and imaginations of later generations were all involved. The ways an artist was viewed by contemporaries and posterity defines "the image of the artist" (Kris and Kurz, 1934); in Chinese case, the volume of various writings created over history made the transformations of artists' images particularly complex.

During Ming and Qing dynasties, the popularity of *biji* (筆記 brush note) genre led to the production of various anecdotes about artists, becoming a crucial component in shaping their images. *Biji* is a type of text that was written by members of the elite, and it collects anecdotes on a wide variety of subjects as a way of illuminating characters (Clunas, 2004: 166–169). Since anecdotes are more vivid and colorful, they sometimes spread more widely and have a more profound impact than official texts and formal biographies. Additionally, with the intersection of elite and popular culture, some of these anecdotes were brought into popular texts, such as novels and dramas, thereby further shaping public perceptions of these artists.

Since much of this "construction of image" in China has been textual, one thing to keep in mind is that it was the literati who wrote the texts in which the "image" was formulated and circulated (Cahill, 1978 and Clunas, 2004). As Craig Clunas proposes, "A large quantity of what survives, whether as actual pictorial or written artifact (and in the Ming period words and images were often co-presences), or as printed text, was done for someone, and on a specific occasion (Clunas, 2004: 8)." The historical writings are also creations, and much like the choice of an artist's painting style, they also came out from certain social expectations. Therefore, James Cahill's theory of "corresponding expectations" about the artistic style can also be a feasible vehicle for elucidating the construction of the artist's image. Cahill suggests that artists who held certain positions in Chinese society were subject to corresponding expectations of their own and from all around them. Artists' choices of styles were influenced—and, in broad limits, even determined—by the sets of expectations that applied to their particular situations, even though they weren't always conscious of it (Cahill, 1978: 164–165). Artists' images in historical writings tend to conform to certain expectations of people who created them and those people's surroundings, in which politics, economic situations, and the cultural atmosphere of the time were all influential factors, whether consciously or unconsciously.

Ni Zan's Image

Ni Zan, who lived during the later Yuan dynasty and the beginning of the Ming dynasty, has been long recognized as one of the "Four Great Masters of Yuan Painting." Through the image construction during the Ming and Qing dynasties, Ni Zan became a cultural and historical icon of literati. Ni Zan's image as a lofty scholar and his simple, almost barren,

unpopulated landscapes have become intertwined in later discourses (Figure 1). This fixed association between Ni Zan's image and his painting style set up the expectations about personalities of artists who followed a similar painting style, as well as the interpretations of their works.



Figure 1: Wind among the Trees on the Riverbank (*Jiangzhu fenglin tu* 江渚風林圖), 59.1 x 31.1 cm, The Metropolitan Museum of Art

Under the rule of a non-native ethnic group during the Yuan dynasty, scholars found no path to advancement in official careers and thus turned to poetry and painting to express their sentiments. With the restoration of Han Chinese rule in the Ming dynasty, scholars were once again filled with zeal to serve the country. However, during the establishment and early years of the Ming dynasty, literati were largely undervalued, particularly in the Jiangnan region. The first Ming emperor, Zhu Yuanzhang, is infamous for his general mistrust of intellectuals and for persecuting literati, in particular from the Suzhou of Jiangnan region, since many of them had joined the court of Zhang Shicheng, his opponent, after Zhang proclaimed Suzhou his capital in 1356 (Hay, 1995:2). Disheartened once more, scholars chose to distance themselves from state affairs, opting for seclusion and self-preservation. As Ni Zan, himself from the Jiangnan region, refused to serve both the Yuan dynasty and Zhang Shicheng on principle, and maintained a similar detachment after the establishment of the Ming dynasty. He dedicated himself entirely to the refined pursuits of poetry and painting, for which he is celebrated as a lofty, virtuous, and noble person. Ni Zan and his paintings stand as a symbol of moral and literati integrity. Ni Zan's image as a lofty recluse and his brief and reflective paintings resonated with the Ming literati's need to vent their feelings and express their sorrows and grievances, thus gaining appreciation and advocacy among them.

From the middle of the Ming Dynasty, Suzhou began to restore its previous splendor, the Ming state progressively lifted its restrictions on the Jiangnan region (a broad area of which Suzhou was a part), and the literati in this area experienced collective cultural, social, and economic prestige. They used Ni Zan as a legacy to represent the area's public claim to primacy or its recapture of local pride (Kim, 2019: 172-173).

His deeds and image gradually became legendary, with various historical narratives portraying him as a recluse aloof from worldly affairs, possessing refined tastes and a sublime soul. Here are some examples: he was a compulsive hand washer, always accompanied by a servant carrying a washbasin filled with water for him to wash his hands wherever he went. He had two special servants to serve in his studio who were required to clean it and his writing implements multiple times a day. If guests visited his home, every place they sat on and every utensil they touched had to be meticulously cleaned. Despite having his friends order spring water from distant mountains, Ni Zan only used the water from the first bucket to brew tea, as he believed the water in the back bucket had been contaminated by the servants' farts and so was only suitable for foot washing. The most famous one among numerous anecdotes is that Ni Zan asked his servants to wash the wutong trees (also known as the phoenix trees, paulownia trees, or Chinese parasol trees). This story had been popularized throughout the Ming and Qing dynasties in several versions. The basic plot revolves around a visitor to Ni Zan's residence who coughed and spat on the floor outside of his chamber. Ni Zan then instructed his servants to locate the spit inch by inch. The servants looked for the soiled spot for a long time but were unable to find it. Ni Zan began to search for himself and eventually found it near to the root of a wutong tree. He let the servants wash the tree immediately, and ended up washing the tree to death.¹ Such a search for purity in these anecdotes reflected Ni Zan's aspiration for spiritual cleanliness.

After such a legendary image of Ni Zan as a lofty scholar became ingrained in art history, his paintings inevitably acquired a morally charged layer of cultural imagination. They not only symbolized one's own spiritual purification, but also implied a sense of pride in choosing a lifestyle and value system of withdrawing from the hustle and bustle of the world (Yao Ruoyu, 2021:59). Dong Qichang 董其昌 (1555-1636) also extolled the virtues of Ni Zan during the late Ming dynasty, saying that Ni Zan's character was superior to the other of the Four Great Masters of the Yuan. This viewpoint persisted into the Qing dynasty, spreading alongside the discourse on the Northern and Southern schools of painting. Washing wutong trees that originated from anecdotes about Ni Zan even became a classic allusion, a favored theme in poetry and painting for later scholars. It is regarded as a metaphor praising the purity, loftiness, and integrity of one's character. Dai Cang's 戴蒼 (?-?) *Wang Shizhen with a Qin-zither Having Wutong Trees Washed* (*Yuyang shanren baoqin xitong tu* 漁洋山人抱琴洗桐圖) (Figure 2), for example, places the main figure, Wang Shizhen 王士禎 (1634-1771), within a scene of washing the wutong tree, accompanied by a *guqin* (a Chinese zither), subtly invoking the allusion to Ni Zan to praise the subject's pure and lofty disposition, and broad-mindedness. Qing emperors also admired Ni Zan for his loftiness and invoked the topic of "Washing the wutong tree" in various fields. Some examples include Kangxi and Yongzheng emperors' seals of "Washing wutong trees hill studio 洗桐山房," Qianlong Emperor's poems originated from Ni Zan's anecdotes, and some implements and stationery that were decorated with carved scenes from this story (Figure 3).

¹ The detailed anecdotes about Ni Zan can be found in Ming scholar Gu Yuanqing's 顧元庆 (1487-1565) *Yunlin Yishi* 云林遺事, which was named after Ni Zan's style name, Yunlin.



Figure 2: Wang Shizhen with a Qin-zither Having Wutong Trees Washed (*Yuyang shanren baoqin xitong tu* 漁洋山人抱琴洗桐圖) Part, 31.5×126 cm



Figure 3: Lacquer box depicting the scene of “Washing the Wutong Tree” (*Tihong xitong baohe* 剔紅洗桐寶盒), National Palace Museum

Since the mid-Ming period, there has been a saying in the Jiangnan region that one's refinement and taste could be distinguished by whether they owned a Ni Zan's painting. Beyond mere collection, imitating Ni Zan's style became highly popular among literati painters. Transmission and imitation have long been a necessary path for artists to learn painting in the past, and those who mastered the skills could go beyond copying. Artists from the Wu School enjoyed producing paintings in Ni Zan's style. For example, Shen Zhou 沈周 (1427-1509) and Wen Zhengming 文徵明 (1470-1559), two of the Four Masters of the Ming dynasty, had many works in this style. Dong Qichang and the other later Ming literati owned extensive collections of Ni Zan's paintings and practiced a wealth of works inspired by Ni Zan. This trend continued into the Qing dynasty, with the renowned artists, such as “Four Wangs” and “Four Monks”, also following suit.

Additionally, as Ni Zan's image served as a cultural symbol for Ming literati to reflect upon themselves, collecting his works and imitating his painting style embodied the social values of upholding moral integrity and refined taste, a sentiment that also permeated other social classes and became a fashionable trend. As Timothy Brook emphasized, the fashion setting is dominated by the established elite. The standards are set not by aspirants climbing from lower ranks but by those who have already attained and seek to protect their elite status (Brook, 2001: 218). Culturally significant items, such as antiques and paintings, which circulated only among a small number of individuals from the elites in the early Ming period, were brought in greater numbers into the morally vacant world of money with the commercial development and the emergence of wealthy merchants during the Ming and Qing dynasties (Brook, 2002: 223). Therefore, participation in cultural activities associated with the literati was a way for merchants to elevate their social status as they sought to become

part of the elite class. So when merchants collected Ni Zan's paintings or patronized artists who created works in his style, they sought to save themselves from an ill repute of a "philistine" with questionable morals; they escaped such a notoriety by sheltering under Ni Zan's reputation and luster (Kim, 2019: 186-189).

Tang Yin's Image

If Ni Zan's image symbolizes the ideal of the traditional scholar, Tang Yin's image represents the literati and the even general public that were influenced by New Thought. Tang Yin was a celebrated painter, poet, and scholar of the Ming dynasty, who was considered as one of the "Four Talents of Wu" in Ming literature and one of the "Four Masters of the Ming dynasty" in art history. In addition to his contributions to literature and art, he rose to prominence in popular culture through numerous extraordinary stories about him. Tang Yin's image, characterized by his free and unrestrained nature and romantic and dissolute life, has made him one of the most well-known historical figures in China. These features of his image deeply influenced the interpretation of his art, particularly with regards to the style of his landscape paintings and the content of his figure paintings, in subsequent generations and even today.

Since the founding of the Ming dynasty, the state had been run on Zhu Xi's 朱熹 (1130-1200) Neo-Confucian principles, imposing a heavy burden of morality and rationality on scholars' inner lives. By the mid-Ming period, orthodox Neo-Confucianism was being fiercely challenged by new economic relationships, increased productivity, and a consciousness awakening. Starting with Wang Yangming's 王陽明 (1472-1529) School of Mind, further expanded by the Taizhou School, these movements used the natural and genuine aspects of human nature to reject the determinism of moral principles (*tianli* 天理) and objectively demanded the removal of conventional constraints on human nature. This intellectual evolution continued to later period, in such elaborations as Li Zhi's 李贄 (1527-1602) "Theory of the Childlike Heart," Tang Xianzu's 湯顯祖 (1550-1616) "Doctrine of Emotions," and the Gong'an School's "Theory of Individuality and Spirit" (espoused by the Three Yuan brothers). These ideals, which called for equality, individual freedom, human liberation, and respect for normal human desires, gradually evolved into a widespread social trend. Yuan Hongdao 袁宏道 (1568-1619) of Gong'an School openly supported living a life dedicated to pursuing one's personal desires and unrestrictedly developing one's uniqueness. The free-spirited and liberating qualities embodied by Tang Yin, unbound by orthodox Confucian constraints, reflect the demand for human liberation at the time.²

Numerous anecdotes about Tang Yin illustrate his easy and free image: an unrestrained scholar and artist. One such story tells of a day when Tang Yin and his friends were drunk and found themselves out of money but still eager to continue their revelry. They took off their clothes and pawned them at a wine shop to get more food and drink, spending the evening in joyous indulgence. In his drunken state, Tang Yin painted several landscapes. The next morning, he sold the paintings, used the money to redeem the pawned clothes, and returned them to his friends. Another tale describes how Tang Yin and his friends, dressed as beggars, roamed the streets singing "Lotus Falling" to beg for money. They used the money to buy wine and drank merrily in an abandoned temple. Legend has it that Tang Yin also enjoyed using his talent and wit to prank pompous officials. Once, he and his friend Zhu

² For a comprehensive introduction to the new thought trends of the Ming dynasty see Qi Xubang, 1984.

Yunming 祝允明 (1462-1527) were wandering around Yangzhou. They spent all their money on wine and entertainment but were still not satisfied. They concocted a plan to disguise themselves as Taoist priests from the Xuanmiao Temple, seeking alms from the salt transport commissioner, a powerful official famous for great power and heavy taxation. When they arrived at the office in their priestly garb, the commissioner was furious and scolded them, “Don’t you know that the authority of the imperial censor is as cold and deadly as frost? What do mere Taoists think they are, daring to come to my office!” After the two “priests” proclaimed their friendly relations with the literati of Suzhou, the commissioner noticed a peculiar rock in the courtyard that resembled an ox and asked them to create a poem based on it. Without hesitation, they composed a seven-character regulated verse on the spot, impressing the commissioner with their quick wit and literary prowess. Their poem won over the commissioner, who ended up giving them money.

Starting at Tang Yin’s time, a free-spirited personality became a common aspiration for many scholars. This was often expressed in a rebellious and uninhibited attitude toward life, along with a disdain for official honors and an obsession with personal fulfillment. Such a personality would inevitably clash with conventional morals, the established social order, and social norms. This conflict was particularly pronounced when the unruly nature of these scholars was suppressed or crushed by the imperial examination system or bureaucratic institutions (Chen Shuliang, 2019: 10). Their repressed emotions and dissatisfaction often found an outlet through unconventional and rebellious behaviors (which were attributed to them but which they might not necessarily carry out in real life). They believed society was absurd, and that the way they could get out of it and go past it would be to fight absurdity with absurdity (Chen Shuliang, 2019: 10). The renowned image of Tang Yin, perpetuated through various anecdotes and widely accepted across different texts, became a symbol and ideal for this free-spirited ethos. Thus, whether in response to the oppressive policies imposed on the Jiangnan region by the early Ming state or the later conflicts between local powers and authorities arising from the development of Jiangnan’s commerce and industry, Tang Yin’s image was crafted as a symbol of resistance in a free individual. This absurdity attached to Tang Yin’s image can be seen as a “philosophical breakthrough” by intellectual elites in response to new era transformations and survival crises (Xu Jianrong, 2004: 95).

Moreover, for literati in the late Ming and early Qing periods, Tang Yin’s image can offer a means of coping with the chaos and the unfulfilled aspirations they faced, similar to how scholars in the late Yuan and early Ming periods used Ni Zan’s image to express their sentiments. During the late Ming and early Qing, when scholars confronted the collapse of their nation and the helplessness of living under foreign rule, the free-spirited and unrestrained image of Tang Yin could provide a way distinct from their troubled reality. Tang Yin became an ideal symbol of their longing for freedom and detachment from the inner turmoil.

The constructed image of Tang Yin inevitably influenced the interpretation of his art. Over time, his original personality became increasingly obscured, while the constructed image grew more distinct. Starting from the mid-Ming period, there were rumors that after that scandal Tang made a living by selling paintings and sometimes asked Zhou Chen 周臣 (1460-1535) to ghost-paint for him. By the Qing dynasty, this narrative had gained widespread acceptance. In analyzing Tang Yin’s landscape paintings, some scholars argue that selling paintings for a living granted him a degree of personal independence. This independence allowed him to remain uninfluenced by the court and external pressures, enabling him to maintain his individuality and sustain his free-spirited lifestyle. Consequently,

Tang Yin shifted his painting style to the Southern Song academy style as it would sell better. Research on Tang Yin's landscape paintings also often uses this perspective as a direction for the identification of his works.³

Another prominent feature of Tang Yin's established image is his romantic and amorous nature, particularly his interactions with courtesans and his affairs with women in general. The thought trend towards pursuing personal freedom included the belief that everyone should have the right to follow their natural inclinations and fulfill various desires, with romantic and sexual relationships being a significant aspect of this. The Chinese term *ji* (妓) is often translated as "prostitute," but it more accurately means "artist" or "performer," akin to the Japanese term "geisha" (Cass, 1999: 28, and Wetzel, 2002: 647). For the literati group, such female "artists" or courtesans were valued not only for their beauty and sexual allure but also for their role as professional accompaniment. Unlike common prostitutes, they were highly educated and skilled in conversation, classical literature, poetry recitation and composition, dance, and musical performance (Wetzel, 2002: 647). In brothels or other private settings (sometimes invited by the hostess), courtesans provided an elegant ambiance that allowed literati to participate in public activities such as drinking and poetry contests. By the mid-to-late Ming dynasty, courtesan culture had reached its florescence in China, with courtesans becoming a significant force in the literary and artistic circles of the Jiangnan region. This cultural milieu allowed for a greater expression of individual desires and contributed to the romanticized image of Tang Yin, who allegedly frequented the courtesan establishments, as a symbol of personal freedom and artistic excellence.

The anecdotes about Tang Yin's romantic and amorous image can be found in both elite and popular literature. The narrative involving Tang Yin and his close friend, Wen Zhengming, who has been mentioned earlier, serves as a collision between the traditional elite literati archetype reminiscent of Ni Zan and the evolving elite literati image of the new thought trends. One anecdote narrates: one time, Tang Yin and his carefree companions were drinking and reveling on Shihu Lake. They had hidden courtesans on the boat and then invited Wen Zhengming to join them, without revealing their true intentions. As Wen Zhengming became half-drunk, Tang Yin began to sing loudly and summoned the courtesans to encourage Wen to drink more. Wen Zhengming was shocked and attempted to leave. When Tang Yin asked the courtesans to detain Wen Zhengming, he shouted and tried to escape by jumping into the water. Eventually, Wen Zhengming managed to hire a small boat and flee from the scene. In this narrative, Wen Zhengming embodies the traditional literati type akin to Ni Zan, reflecting respect for and concern over traditional rites and moral norms, attempting to escape such a setting in which a courtesan was involved. On the other hand, Tang Yin represents the elite literati image influenced by new thought trends as a personification of a free and unrestrained nature, and the scene of him enjoying himself in the company of courtesans reflects the pursuit of a liberated lifestyle championed by the intellectuals of the new era.

This collision is not only evident in literary portrayals but also extends to art interpretation and critique. Wen Zhengming and Tang Yin both painted ladies, a popular genre during the Ming and Qing dynasties. However, when interpreting their artworks, the figures in Wen Zhengming's paintings are not associated with courtesans or erotic themes. Conversely, regardless of the style of Tang Yin's paintings, they are often intertwined with his interactions with courtesans or personal affairs with women. This situation even exists in some works where Tang Yin and Wen Zhengming depict similar scenes with a similar style, such as Wen

³ Studies in this direction can be seen: Cahill, 1978. Xie Zhiliu, 1957, and Wang Lianqi, 2017.

Zhengming's *A Lady and Bamboo* (*Xiuzhu shinü tu* 修竹仕女圖) (Figure 4) and Tang Yin's *Lady Ban holding a Round Fan* (*Banji tuanshan tu* 班姬團扇圖) (Figure 5).



Figure 4: A Lady with Bamboo (*Xiuzhu shinü tu* 修竹仕女圖), 33×77 cm



Figure 5: Lady Ban holding a Round Fan (*Banji tuanshan tu* 班姬團扇圖), 63.6 x 150.4 cm, National Palace Museum

Many anecdotes about Tang Yin provided materials for popular culture, which was continuously upgraded and widely disseminated. Of them, the romantic story about Tang Yin and a maid named Qiu Xiang is the most well-known narrative. It describes, in broad terms, that Tang Yin, deeply attracted by the beautiful maid Qiu Xiang, pursued her to her host's house by boat, even selling himself into servitude to reach her. Later, his talents were discovered by the host, leading to his eventual reunion with the beauty. As the new thought trends continued and commerce and handicrafts flourished, accompanied by the rise of citizens' social status, the demand for liberation manifested in both material and spiritual aspects of everyday life (Qi Xubang, 1984). Feng Menglong 馮夢龍 (1574-1646), the author of the novel featuring Tang Yin and Qiu Xiang, used "feeling education" to challenge Neo-Confucianism, catering to the inner needs of the public through popular novels. Anecdotes about Tang Yin transitioned from elite literati *biji* into popular novels and were subsequently adapted into various forms such as dramas and operas, thereby reaching a broader audience of every social class. Thus, Tang Yin's strongly influential and enduring image was gradually formed, significantly shaping the interpretation of his art. Wang Shimao 王世懋 (1536–1588), a prominent Ming scholar, once proposed that Tang Yin, who excelled in painting in all genres, was particularly skilled in portraying beauties, reflecting the multiple love affairs in his life. This can be considered one of the key factors in later interpretations of Tang Yin's paintings of women.

Conclusion

Traditional Chinese artist's image was constructed by the writings of literati. This image was the product of the literati's expectations, convictions, and beliefs in different historical periods. Given that literati dominated art and social discourse and controlled the media, their expected images of artists worked similarly in understanding the art. This study does not assert that external circumstances, the expectations from the literati's surroundings as presented here, is the sole determinant in the construction of an artist's image. The formation of the image of Chinese artists is complex, and the image itself is multifaceted, resulting from a combination of numerous factors. This paper merely offers a reasonable direction for studying this issue. As artists' works were accepted and passed on, the artists' images were continuously updated to align with evolving social expectations. This evolving expectation, in turn, is reflected in the interpretation of these artworks in different times and situations.

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The Relevance of Resources Supporting Cultural Identity for Indigenous Children

Maria Guadalupe Castaneda, Southern Methodist University, United States

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Cultural identity, based on individual's origin, serves as the foundation of self-perception and thrives on collective knowledge. This paper highlights the critical role of illustrations in fostering a strong sense of identity for Indigenous Children. As inheritors of a rich legacy, Indigenous Peoples, possess unique cultural traditions, and social structures that differ from predominant societies. The first intentionally drawn picture, created 73,000 years ago on a rock, symbolizes the transition from survival to expressions of human culture through images. Despite a long history of images across ages, Dr. Sarah Parks' study, "Diversity in Children's Books 2018," reveals the underrepresentation of Indigenous children in illustrations, affecting not only their self-awareness but also influencing the perceptions of white children by limiting their exposure to diverse protagonists. The study is examined with respect to the following factors: A) Illustrations serve as an educational resource. Their visual effects support a better understanding of concepts. However, illustrations can also perpetuate stereotypes, or prejudice. B) The potential alienation of individuals from other communities if protagonists consistently belong to a particular race. C) Readers' empathic feelings are related to the level of transportation involved. Transportation entails discernment, sentiments, and mental imagery proceeding from the story. Findings from this study contribute to the ongoing discourse on the importance of representation in children's literature.

Keywords: Cultural Identity, Illustrations in Children's Books, Representation in Literature

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Introduction

A couple of simple lines drawn 73,000 years ago on a flat rock found in the Blombos cave in South Africa¹ is the legacy of the first intentionally drawn picture made by primitive hands. Human symbolic thinking has found, in images, a powerful channel that transmits ideas, concepts, and emotions. This document will analyze the role and relevance of illustrations in children's books with topics related to human rights and the impact they have on the readers to increase Indigenous People's representativity and avoid social invisibility.

Social invisibility refers to a group of people in society who have been separated or systematically ignored by most of the public.² As a consequence, marginalized individuals feel unseen and unheard in society. Examples of socially invisible groups globally include the elderly, orphans, minorities, Indigenous People, impoverished individuals, the homeless, or anyone who experiences ostracism from society.

While there has been increasing international awareness of Indigenous Peoples' presence worldwide, the place that they have in society is still uncertain and secondary.³ Indigenous People face significant challenges such as poverty, health disparities, and social injustice. What happens when people are not considered part of a community? They are often dehumanized and denied respect. This lack of recognition leads to a disregard for their human rights, which are fundamental to every person's dignity.

Indigenous Children already in an extremely vulnerable position, also endure oppression, discrimination, and prejudice. One of the gravest threats to the human rights of Indigenous People is ignorance. Lack of awareness about human rights can prevent individuals from discussing, understanding the implications, defending and recognizing others as deserving of the same rights and privileges. Education plays a crucial role in combating ignorance and raising awareness about human rights. It is imperative to consider that the actions or inactions of governments impact children more strongly than any other group in society.⁴

Indigenous Peoples as the Bearers of Cultural Heritage

Inheritors of a rich legacy, Indigenous People are groups who present their own unique cultural traditions, language, and social structures that differ from the predominant society.⁵ They represent the historical continuity of society's pre-colonial or pre-settlers. These groups present another typical trait: a strong connection with territories or natural environments which are related to their subsistence, spiritual practices, and traditions.⁶ Indigenous Peoples' bond with the environment transcends generations through artistic expressions used by their communities. Indigenous People share their daily life routine, religious rituals, work, and life cycles thru creative demonstrations involved in art projects that include a combination of

¹ Lopez, Sandra y Domingo, Angel. *De Vocacion a Oficio: Una Guía Grafica para la Ilustracion Infantil*. Agencia Espanola para la Cooperacion Internacional y el Desarrollo.

² Social Invisibility definition. The Universal Encyclopedia of World Problems and Numan Potential.

³ Anaya A. "Why is Mexico lagging so badly on human rights?" The Conversation. (2016)

⁴ UNICEF. "Conventions on the Rights of the Child." Unicef.org. <https://www.unicef.org/child-rights-convention/child-rights-why-they-matter>

⁵ United Nations. Department of Economic and Social Affairs. "Indigenous People" <https://www.un.org/development/desa/indigenouspeoples/about-us.html>

⁶ "10 Things We All Should Know About Indigenous People." United Nations Development Program. <https://stories.undp.org/10-things-we-all-should-know-about-indigenous-people>.

symbolism, embroidery, sculptures, songs, garments, and illustrations that reflect the heritage of their civilization and enhance their sense of community.

The Transcendence of the Universal language of Illustrations

An illustration is a graphic composition formed by drawings, pictures, and images⁷ that attracts attention and invites interpretation and awareness. The universal language of illustration has been a resource in countless civilizations in the history of humanity. From the colorful and intricate murals in ancient temples in Mayan culture to the hieroglyphics that are part of complex compositions in Egypt, illustrations represent the intention to communicate and share messages with broad audiences regardless of the audience's origin. Illustrations can transmit a message that is not limited by language barriers. According to Paleolithic archeologist April Nowell, the simple drawings of animals and handprints that are found in countless caves worldwide represent a shift in how humans interpret and interact with their environment, a transition from focusing on survival to the incipient expression of human culture.

Illustrations can be an instrumental educational resource. Their visual effects can be provocative and result in a better understanding of concepts, ideas, and definitions. An illustration in a book is also a tool that allows the communication of a more dynamic and precise element of information because it represents an intuitive way to learn something.

However, illustrations can also reinforce stereotypes, preconceptions, or prejudice. The repeated representation of a particular concept in a deterministic way may bias the reader's opinion. For example, in children's book illustrations, if the protagonists are always members of a certain race, or have certain characteristics like facial traits, live in particular conditions or their family structure is a specific one, members of other communities can feel that their reality does not match with the narrative or illustrations of the book. On the other hand, children from dominant societies can have a sense of being part of a "better" race because they appear in more resources and are portrayed as "heroes" or main characters of stories, whereas others have a secondary role in the narrative.

The Significance of Children Understanding Human Rights

From early childhood, children who learn about human rights recognize the relationship between a person's rights and responsibilities to others. Resources like books, lessons, and class discussions are particularly important because, for many children, these are their only opportunity to be exposed to human rights educational materials. In books, illustrations accompanying a text can be notably useful. In children's books, illustrations have several functions, and powerful impacts on the child, evoking a diverse range of responses.⁸ Illustrations in children's books can also attract attention through their colorfulness and creativity. They stimulate the reader imagination while maintaining their interest in the narrative.⁹

Illustrations help children who are not frequently exposed to books or who are poor readers (Donald 1983) because children who struggle with reading can depend on illustrations to

⁷ Illustration. Oxford Dictionary. <https://www.oxfordlearnersdictionaries.com/us/definition/english/illustration>

⁸ Nasser, Samiya. *What is the Importance and Impact of Illustrations in Children's Books?* ASJP.2021.

⁹ Bal, P. Matthijs, and Martijn Veltkamp. "How Does Fiction Reading Influence Empathy? An Experimental Investigation on the Role of Emotional Transportation." PLOS ONE. Public Library of Science.

understand the story. This can be particularly useful for Indigenous children, who can benefit from additional support in their education. According to the National Institute of the Evaluation of Education in Mexico, 23 % of Indigenous People 15 years and older are illiterate while only 4.2 % of the remaining population is illiterate. Additionally, 1 in 4 Indigenous language speakers does not complete high school or higher education. Illustrated books, therefore, could be a useful resource for Indigenous Children.

Indigenous Children and Human Rights

What happens when children are exposed to educational programs related to human rights? Societies that understand the urgency to be respectful and tolerant of Indigenous People who are their fellow community members can lead to a more tolerant and inclusive humanity. The way children's understanding of human rights is shaped when they learn about them and how they can recognize the relationship between a person's rights and responsibilities to others is instrumental in children's civic education. When exposed to books, children react emotionally and intellectually to the content and pictures. They will find themselves in the illustrations, recognizing passages or situations from their own lives, which can facilitate self-expression and understanding of their value as human beings and others' importance as individuals.

Indigenous children frequently rely on storytelling, observation, and an immersive consideration of their environment. The world of nature full of an array of plants and animals represents a unique part of their daily lives because it is undoubtedly related to their existence. To reaffirm this alliance, representations of plants, animals, and the natural world are expressed in their pottery, blankets, garments, ornaments, toys, murals, and paintings. Indigenous children consider the colorful combination of techniques, materials, and elements as part of their culture and identity. Illustrations provide an essential element of knowledge and information in which the artist's approach must be responsible, sincere and include relevant components to Indigenous children's lives. Illustrations in children's books can attract attention and establish the mood of the story, as they define and support the characters, this is especially effective in short narratives that do not include highly developed characters.¹⁰

There are many resources explaining the guidelines to incorporate illustrations in children's books, along with the type and format of illustrations. The guidelines include the impact of the illustrations on the comprehension level of the reader. Literacy educator Patricia Cianciolo maintained that the main purpose of children's books is to be read and that illustrations should not interfere with this goal by being too eccentric. Preferably, illustrations must help deliver the writer's message accurately. Cianciolo supported the idea of the usefulness of illustrations to attract the attention of children, which is one of the most successful methods to stimulate learning. Equally important for her was the assumption that illustrated books would facilitate the reader's comprehension and increase their vocabulary; illustrated books can help children to understand concepts of the world surrounding them.

¹⁰ Brookshire, Jamye. Scharff, Lauren Moses, Laurie." The influence of illustrations on children's book preferences and comprehension." 2002 Reading Psychology. 23.
https://www.researchgate.net/publication/240238648_The_influence_of_illustrations_on_children's_book_preferences_and_comprehension/citations

Ultimately, illustrated books support a literary and cultural heritage and help in the development of appreciation and understanding of the graphic arts.¹¹

However, some authors have argued that illustrations in children's books can adversely affect the reader's understanding of the text, by diverting the attention only to the images and away from the text itself. Authors like Charles Elsters and Herbert Simons state that the way the illustrations and text interact affects the reader's ability to understand the story. They explain that a text is known as "picture- dependent" when a text can only be understood by looking at the pictures. On the contrary, a text that can be understood with or without the support of the illustrations is known as "picture- independent," because the pictures only provide additional references or clues. Elsters and Simons conclusion is that illustrations must be used only as additional support for the children helping them to understand the meaning of the words and not focus only on the pictures. The authors believe that illustrations must be coherent with the text, which will aid the story comprehension.

Even though some authors reinforce the idea that pictures can delay children's ability to understand a text, others have found evidence supporting the use of illustrations. One example of this evidence is the research made by scholars J. Don Read and Roger Basley, which found that illustrations in reading materials can have a positive impact when long-term memory is tested. Professor of Education Zhihui Fang also encourages the use of illustrations in children's books because they promote and develop children's interest in books, inviting them to interact with the text; the constant involvement of the children motivates them to predict the end and find similarities in their own lives or situations applicable to their own realities, as well as empathizing with the characters. Illustrations in books have the purpose of explaining, interpreting or decorating a text. Pictures and illustrations in children's books are focused on storytelling and have different functions from paintings or artistic illustrations found in galleries.¹²

Main Functions of Illustration on Children's Books

Illustrations are instrumental to the picture book; they can guide the reader through the story and provide context and additional details that would help create mental images and a frame of reference. The following are some of the important objectives of illustrations in books:

Illustrations Determine the Setting. The setting provides the story's location in time and place, historical references, and mood.¹³ Illustrations are also very constructive in determining the mood of a book with pictures. The color palette can be employed to create a particular mood or environment that can help to create sensations or feelings related to the narrative. Definition and development of characters. Children pay particular attention to the facial expressions and traits of characters in stories. They can give readers more information about the characters' feelings and intentions, helping them to connect with the story and understand it. For instance, the villain's clothes or gestures can be part of the interpretation of a character, giving the reader visual elements that will reinforce the way they recall the character later. Also, they extend or develop a storyline. Frequently, illustrated books have

¹¹ Brookshire, Jamye Scharff, Lauren. Moses. Laurie. (2002). "The influence of illustrations on children's book preferences and comprehension." *Reading Psychology*. 23. 323-339.

¹² Fang, Z. "Illustrations, Text, and the Child Reader: What are Pictures in Children's Storybooks for?" *Reading Horizons: A Journal of Literacy and Language Arts*, 37 (2).

¹³ Drago, Flavia. "Curso de Ilustracion Infantil" Domestika.

limited amounts of text, in which case the story's explanation will rely on illustrations. Furthermore, in wordless illustrated books the whole plot is developed through illustrations whereas, in illustrated books with text, the plot can be augmented, contradicted, or delimited by illustrations.

Illustrations Can Provide a Different Perspective. They can narrate a different or contradictory story than the text. The reader will interpret the images and learn that sometimes there can be several interpretations of the same story. Illustrations that contradict the text frequently are used to raise consciousness about a social issue. For example, the text can narrate the assumption that all children in the world have food and nice schools while the illustrations can depict children without enough food or books. Finally, they assist with textual coherence. Coherence refers to the quality of being logical, so a text is understandable to readers.

Illustrations Can Help to Textual Coherence by Providing Referential Hints for the Text / Support Text. In specific cases, the main purpose of illustrations in books is to reinforce rather than magnify or extend the text. This is particularly important to nonfiction illustrated books in which the illustrations, graphs, and diagrams offer a visual emphasis on the words. The inclusion of elements in illustrations can present many aspects of a particular scenario important to the narrative to the reader. The natural environment, food, garments, and objects can easily give readers context to the story. In the illustrated book *The Little Book of Joy* written by His Holiness the Dalai Lama and Archbishop Desmond Tutu, artist Rafael Lopez masterfully includes colorful landscapes, buildings, and toys that can transport the reader to the world of the writer's childhood. Lopez emphasizes how illustrations can help the reader explore and connect with other cultures, making them citizens of the world while learning about the lives of young people globally.

Important research to support the use of illustrations has been done, like the study conducted by semantic scholar, J Peeck, who developed a case of study to demonstrate the level of retention of a story with or without illustrations. Peeck showed a group of participants some cartoon strips that included text and images, and to another group he only shared text. After an unannounced retention test, Peeck found quickly that the group that received the story with illustrations and text remembered more information than the other one. This resulted in the group that received the story with the illustrations performing significantly better. After a day or a week when the questions were again asked, the same group again correctly answered questions related to pictures only. Peeck conclusion was that retention measured from the inclusion or exclusion of illustrations can be relevant in determining whether to include or not illustrations.¹⁴

Illustrations and Narrative Transportation

The impact of reading a book extends to people's behavior in their lives, particularly in terms of empathy levels observed between fiction and nonfiction narratives. Professors Bal Matthijs from the University of London and Martijn Veltkamp, a Senior Researcher in Applied Psychology in the Netherlands, explain that readers' empathic responses are influenced by the level of transportation experienced during reading. Transportation is defined as a convergent

¹⁴ Peeck, J. "Retention of pictorial and verbal content of a text with illustrations." *Journal of educational psychology* vol. 66,6. 1974.

process where all mental systems and capacities¹⁵. Authors Bal, P. Matthijs, and Martijn Veltkamp argue that a fictional text is not evaluated on its consistency but on whether it establishes truth likeness, therefore a reader will be impacted by a fictional text only when it is realistic, inviting the reader to be drawn into the story.

Transportation entails discernment, sentiments, and mental imagery proceeding from the story. Illustrations are key components that influence the individual's mental imagery and can be associated with understanding and enjoyment. Therefore, it is more probable that readers that are more transported could adopt story-related beliefs, behaviors, and attitudes.

The Importance of Representativity on Illustrations for Indigenous Children

Children can build their reality from different components like stories, songs, movies, experiences, and many other factors that help them to interpret reality into common patterns. They can explore and discover the world through these elements, and they can also find themselves represented. Specifically, illustrated stories have a unique role in picturing children, portraying distinct cultures, information about those cultures, and guiding the reader into the interpretation of the world, transmitting values such as friendship, empathy, courage, a sense of community, diversity, inclusion, and emotions, which are fundamental for children's development and growth.

Representativity in illustrations of Indigenous children plays a crucial part so Indigenous children can build their own perspectives about their own ethnic group. What are the effects if Indigenous children do not find themselves represented in illustrations? The lack of representativity in books, and videos can lead to negative psychological effects for those with identities less represented or negatively portrayed, while the representativity in children's books or movies can promote positive attitudes and favorable interaction with members of ethnic communities.

When children encounter books where they don't see themselves reflected in the illustrations, it can lead to feelings of being unseen or less significant in society. Chimamanda Adichie, a Nigerian novelist, discusses the "Danger of a single story," which refers to the limitations imposed when resources only present one perspective, restricting the reader's understanding. Moreover, narratives with a singular type of character can perpetuate stereotypes or biases about family, friends, society, and values.

In her article "Mirrors, Windows, and Sliding Glass Doors," Sims Bishop elaborates on the metaphor of what a narrative represents for a child. Some stories act as windows, offering a clear view of the real or imagined world, while others act as glass doors, allowing children to enter and feel part of different worlds. Mirrors, however, reflect a reality familiar to the reader, enabling children to find their own identity, community, and reality within the narrative. This experience fosters empathy and a sense of being valued, as readers see similarities between themselves and the story. Reading thus becomes a form of self-affirmation, encouraging readers to seek reflections of themselves within narratives.

Children from dominant parts of society have always had an array of options in books, they can be portrayed as the protagonists of the story in which reality will feel familiar. Exposure to illustrations and stories that include diverse members of society can support a more

¹⁵ Bal, P. Matthijs, and Martijn Veltkamp. "How Does Fiction Reading Influence Empathy? An Experimental Investigation on the Role of Emotional Transportation." PLOS ONE. Public Library of Science.

tolerant and respectful community in which children learn to consider members of other communities as part of an equalitarian society. Illustrations including Indigenous children can help other children to learn about traditions, diminishing laughable or derogative representations of them.

Dr. Sarah Parks' infographic "Diversity in Children's Books 2018" illustrates the representation of minorities in children's literature. Surprisingly, in 2018, 27% of published books featured animals as the main characters, a percentage higher than all minorities combined. In contrast, white characters appeared in 50% of the published material. This abundance of resources featuring white characters allows white children to see themselves reflected, but it leaves Indigenous children significantly underrepresented, appearing in only 1% of published books and often being stereotyped.

Books serve as powerful tools for promoting acceptance and inclusion. The lack of representation not only impacts Indigenous children's self-awareness but also affects the self-perception of white children, who may not see diverse characters as main participants in stories or may encounter misrepresentations in illustrations and narratives.

Educational illustrated books for children can highlight the recognition of the United Nations Declaration on The Rights of Indigenous People which addresses the right of Indigenous families and communities to retain shared responsibility for the upbringing, training, education, and well-being of their children, consistent with the rights of the child.¹⁶ Although the rights of Indigenous peoples have been given more consideration by international organizations like the UN system, Indigenous people still are enduring disproportionately from global concerns such as climate change, COVID-19 adverse effects, environmental degradation, elevated levels of poverty, and human rights violations. Even though they represent 6 percent of the world's population, they are part of almost 19 percent of the extremely poor population in the world.¹⁷

The recognition of Indigenous Children through narratives or images can significantly impact their self-esteem and foster a sense of belonging to a larger community. This is a pertinent topic given the vast number of Indigenous communities worldwide. Indigenous People are present in 90 countries, numbering over 476 million individuals and encompassing 5,000 distinct cultures. They inhabit diverse ecosystems and possess intricate systems of knowledge.

Understanding that human rights are universal and apply to everyone globally can empower Indigenous Children to recognize their worth and importance as individuals. Embracing the universality of human rights has the potential to promote inclusion, equality, and the protection of rights not just for Indigenous Children but for all individuals. It encourages a mindset of respect, dignity, and equity for everyone, leading to a more inclusive and harmonious society.

Indigenous children require special resources that reinforce and preserve their identity, and cultural heritage and nurture their uniqueness. The consistent damage to the environment

¹⁶ United Nations Declaration on The Rights of Indigenous Children.
<https://www.un.org/development/desa/indigenouspeoples/wp>

¹⁷ United Nations. Office of the High Commission. About indigenous peoples and human rights.
<https://www.ohchr.org/en/indigenous-peoples/about-indigenous-peoples-and-human-rights>

threatens the survival of many indigenous communities because their cultural identity is related to their lands, therefore the protection and conservation of the environment must be considered a high priority for Indigenous peoples globally.

Another component that provides an equivalent opportunity for children to be aware of other communities is the teachers, parents, and caregivers' willingness to expose them to diverse cultures. These choices can be related to the inclusion of materials in which these cultures are represented. Children are naturally curious; they like to explore and learn. Exposure to different traditions could diminish future prejudice or predisposition towards minorities or underrepresented groups.

In the community, around the fire or at home, legends, stories, and fables transmit the values that shape children's everyday lives. Courage, kindness, determination, and perseverance are some of the traits highlighted in narratives. Egalitarian societies consider all people the same regardless of race, gender, religion, or age. The materials and procedures used to teach about those rights must attract the children's interest and be accessible to them. Human rights and literature scholar Michael Galchinsky believes there is a difference between vertical and horizontal orientation. Human rights culture presents civic and ethical practicalities related to human rights law, in this case, the orientation of the law is vertical, going down from government institutions to individuals. However, in children's illustrated literature, the orientation of rights culture tends to be horizontal, in which the artist approaches humans as persons. For children, literature's horizontal reach goes precisely into their imagination.

Conclusions

Illustrations can point to important concepts for children's rights such as children's justice, respect, and expression of ideas. Illustrated books about human rights transmit human rights matters to children, they can present rights-respecting or rights-denying models of how children are treated. Through time, stories for children have been used as resources to mold children according to guidelines of proper behavior. Along with this, illustrated books have also nurtured children's imagination, creativity, and autonomy.

Analyzed from the frame of reference of human rights advancement, children's literature proposes a way for younger children to think about their rights and responsibilities. One of the most important effects on children is that it exposes them to human rights ethics and principles long before they meet formal law. In addition, because adults often read with children, these literary resources can be of helpful and informative value, so adults are aware of the rights of children and the importance of representativity and inclusion of minorities and underrepresented children.

The Convention on the Rights of the Child honors children as children. They are no longer considered possessions or extensions of adults. Illustrations in children's literature provide children with moments to frequently read their preferred stories, explaining repeatedly about human rights, fair treatment, empathy, compassion, and respect. An accomplishing human rights culture is not only limited to formal documents, treaties, or conventions but also, to the educational narratives that children and adults contribute through stories.

Educational resources for Indigenous children and their families must include illustrations built on the awareness of the necessity to advance human rights, respect Indigenous cultures and address situations and behaviors that create disadvantage and exclusion. For many

Indigenous children, society declines to provide the proper conditions for inclusion and social growth. Therefore, it is now a priority to highlight the responsibility and duty of parents, caregivers, and teachers to point to materials that support Indigenous children's human rights education, because they live around the world, in rural and urban areas, thus, resources like illustrated books that honor their cultural identity, will support the protection from human right's abuses and discrimination as they are the custodians of cultures, traditions, and unique knowledge systems.

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A Study on Integrating Bloom's Taxonomy With AI Learning Partners to Enhance Self-Directed Learning in Visual Communication Drawing Courses

YaYu Huang, National Yunlin University of Science and Technology, Taiwan
Jui-che Tu, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In the aftermath of technological advancements and the global pandemic, the rapid development of Artificial Intelligence (AI) has significantly impacted people's lives and learning experiences. However, post-pandemic, students' learning patterns in physical classrooms have shown noticeable differences from pre-pandemic times. Therefore, this study delves into the new challenges faced by teachers and students in a design drawing course, attempting to innovate by integrating Bloom's Educational Taxonomy Model to enhance students' self-directed learning. The research focuses on the second-year Visual Communication Drawing course in a Taiwanese design department, emphasizing the drawing of products and explanatory diagrams incorporating perspective principles. Applying Bloom's Taxonomy, the study clarifies the roles of teachers, AI, and students in the instructional environment, guiding students in selecting appropriate tools and techniques to cultivate core competencies such as "problem-solving" and "self-directed learning." In the pre-planning phase, teachers and AI learning partners provide guidance on drawing directions and guide students in problem exploration. The design verification phase includes conceptual development and verification of drawing implementation, while the effectiveness assessment phase emphasizes presenting project outcomes and cultivating students' evaluation and reflective abilities. The anticipated outcomes of this research not only include enhancing students' learning motivation and proactivity but also cultivating their awareness of the living environment. Ultimately, the research aims to strengthen students' graphic expression skills, serving as a valuable reference for design education and curriculum planning in related fields.

Keywords: Bloom's Educational Taxonomy Model, AI Learning Partners, Self-Directed Learning

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Introduction

With technological advancements and the disruptions caused by a global pandemic, artificial intelligence has dramatically reshaped the landscape of education. As we emerge from the challenges posed by the pandemic, the learning environment in physical classrooms has witnessed significant transformations. The methods and approaches to learning have evolved, becoming distinct from those prevalent before the pandemic. A crucial concern now is ensuring that students understand their evolving role in this new educational paradigm. Without a clear sense of agency and control over their learning processes, students may harbor fears of being displaced by technology or overshadowed in a rapidly changing world.

In response to these shifts, our research focuses on the novel challenges confronting both educators and learners. We aim to classify these challenges utilizing the structured approach of Bloom's Taxonomy, which serves as a tool to elucidate the evolving roles of teachers, artificial intelligence, and students within the educational setting. By doing so, we provide a roadmap for students to navigate the selection of tools and techniques that best suit their learning needs. Our goal is to foster the development of essential professional skills such as problem-solving, self-direction, and other core competencies that are vital in today's world.

Further, we are exploring innovative ways to leverage Bloom's educational taxonomy in enhancing self-directed learning among students. This involves adapting teaching strategies that not only impart knowledge but also empower students to take ownership of their educational journeys. By integrating AI as a supportive tool rather than a substitute, we aim to enhance the educational experience, making it more interactive, personalized, and attuned to the needs of each student.

This holistic approach not only addresses the immediate challenges posed by the integration of AI in education but also paves the way for developing a resilient educational framework that supports continuous learning and adaptation in an ever-evolving global landscape. Through these efforts, we strive to equip students with the skills and confidence needed to thrive in the future, whatever it may hold.

Literature Review

(1) Bloom's Taxonomy Levels

Developed by Benjamin Bloom and his colleagues in 1956, Bloom's taxonomy has been a cornerstone in educational theory for decades (Bloom et al., 1956). Bloom's taxonomy divides educational goals into three areas: cognitive, affective, and psychomotor. The cognitive domain, which is most commonly applied and centers on intellectual abilities, is frequently represented as a pyramid with six tiers: knowledge, comprehension, application, analysis, synthesis, and evaluation. This pyramid suggests that advanced cognitive abilities are developed through the foundation of more basic skills. Later, in 2001, scholars including Anderson revised the educational objectives classification system (Anderson & Krathwohl, 2001). The primary difference between the old and new versions is the division of the original single dimension into "Knowledge Dimension" and "Cognitive Process Dimension." The former assists teachers in distinguishing "what to teach," while the latter displays the levels of thinking that students demonstrate during the learning process. Therefore, within the "Cognitive Process Dimension," the levels of student cognitive thinking progress from low to high, namely remembering, understanding, applying, analyzing, evaluating, and creating.

According to Bloom's taxonomy of cognitive domains, the self-study that students undertake before or after class involves lower levels of cognition, such as remembering and understanding. This primarily involves learning the basic content of a subject through video explanations. In contrast, higher-level cognitive learning occurs during class, including application, analysis, and evaluation (Francel, 2014). Consequently, the role of teachers in classroom learning shifts from being instructors to facilitators of learning and guides in problem-solving. Through classroom discussions, the design of collaborative learning activities, individualized guidance, and various strategies that promote deep reflection, teachers help students engage in higher-level cognitive behaviors, particularly in application, analysis, and evaluation (Spencer, Wolf, & Sams, 2011). As shown in the figure1. Higher-order thinking skills (HOTS) are extensively acknowledged as fundamental competencies for outstanding individuals in the 21st century (Orakci, 2023; Vincent-Lancrin et al., 2019).

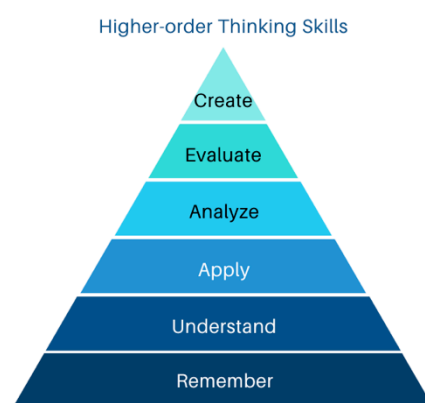


Figure 1: Bloom's Taxonomy Levels

(2) Self-Directed Learning

The philosophical foundation of self-directed learning is deeply rooted in Abraham Maslow's notion of self-actualization (1954) and Carl Rogers' experiential learning (1969), as further elaborated by Hsiao, Hsi-chi and Tsung-Lung Chen (1996). Maslow posited that through self, individuals can transform reality and gain insights into their own motivations. Rogers expanded upon Maslow's ideas, asserting that the self is the driving force behind an individual's actions, creativity, and personality development.

Lucy Guglielmino (1977), drawing from the research of Malcolm Knowles, Peter Moule, and Allen Tough, distilled a definition of self-directed learning. She portrayed self-directed learners as proactive, independent, and patient, bearing a deep sense of responsibility towards their learning. These learners are characterized by their resilience to challenges, ability for self-discipline, high curiosity, strong desire to learn, capacity for self-affirmation, proficiency in basic learning skills, effective time management, and enjoyment in learning with a clear goal orientation. She regarded self-directed learning as a distinct capability.

Furthermore, Rogers (1983) viewed self-directed learning as the freedom to learn and choose independently. Spear and Mocker (1984) observed that self-directed learning showcases a learner's autonomy, especially their capacity to take primary responsibility for their learning, choosing their educational objectives and the significance of their studies. Carol Kasworm (1988) argued that self-directed learning must balance external definitions with internal perceptions of self, considering both cognitive processes and the frameworks of human

psychological development. This approach acknowledges the learner's agency and emphasizes a comprehensive understanding of their educational journey.

(3) Visual Communication Drawing

Visual Communication Drawing plays a pivotal role in effectively conveying both quantitative and qualitative information through various visualization techniques. The goal of data visualization is to determine the most appropriate methods for different contexts to enhance understanding and communication (Romero-Organvidez et al., 2024). Architectural drawing, particularly freehand drawing, is crucial for identifying and selecting valuable information, whether it is derived from a physical site or conceptualization. This practice allows for the representation of complex ideas and spatial concepts in a tangible format (Chao, V. L., & Grela, M. Rodríguez, 2023). Freehand perspective drawing is especially effective in communicating the illusion of three-dimensional objects or spaces. These are often intangible and difficult to express using more restrictive, standardized techniques such as multi-view orthographic projection. Practicing freehand drawing aids creatives in visualizing and thinking about architecture, thus supporting the design process (Herdert, 1988).

In the context of Taiwan, the Visual Communication Drawing course emphasizes the importance of drawing products and diagrams based on perspective principles. This course highlights the critical role of concept generation, beginning with customer needs and specifications and concluding with various product alternatives. According to MICAL (NOBEL, 2013), concept generation is an essential step in the engineering design process. The product representation techniques course is dedicated to visualizing concepts, examining the development of concept proposals during the product design phase. Our research explores the dynamics among teachers, students, and AI, particularly following the integration of Bloom's Taxonomy Levels. We are assessing new challenges faced by teachers and students and exploring how Bloom's Educational Taxonomy can enhance self-directed learning among students.

By integrating these various perspectives and techniques, Visual Communication Drawing proves to be an indispensable tool in the educational and professional development of students in design fields. It not only enhances their ability to visualize and communicate complex concepts but also fosters creativity, innovation, and independent learning skills.

Methodology

(1) Bloom's Taxonomy Levels and the Relationship Diagram With Teachers, Students, and AI

We have meticulously defined the roles of teachers, AI, and students to nurture the development of crucial skills like problem-solving and self-directed learning. Our study delves into the synergistic interactions among teachers, students, and AI within the educational framework, aiming to enhance the educational process through collaborative efforts. By integrating technology thoughtfully, we ensure that it augments student learning without overwhelming it.

Employing Bloom's Taxonomy, we delineate the distinct functions within our educational ecosystem: teachers serve as mentors, guiding students through structured learning activities

and providing valuable feedback; students pursue learning autonomously, taking ownership of their educational journey and engaging in self-directed tasks; and AI provides consistent support throughout the learning journey, acting as a tutor, tutee, and tool. The AI assists students in generating ideas, visualizing concepts, and refining their work, thereby fostering a more interactive and effective learning environment.

As illustrated in Figure 2, this tripartite model creates a dynamic and flexible learning environment where each component contributes uniquely to the students' educational experience. Teachers facilitate critical thinking and problem-solving skills, AI offers personalized and adaptive learning experiences, and students develop independence and creativity. This collaborative approach not only enhances the learning process but also prepares students to meet the demands of the ever-evolving job market, equipping them with the skills necessary to thrive in a technology-driven world.

Furthermore, as we refine this teaching approach based on continuous feedback from students and educators, we anticipate even greater improvements in learning outcomes. The integration of AI in education represents a significant advancement, providing opportunities for more tailored and effective teaching methods. This innovative approach has the potential to transform traditional educational practices, making learning more engaging, interactive, and effective for students at all levels.

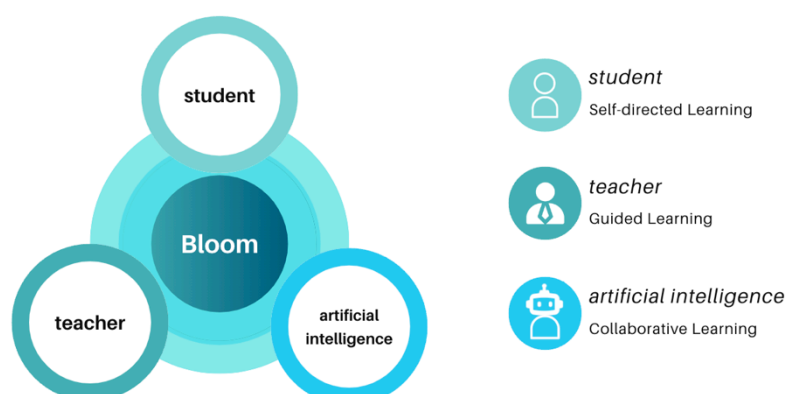


Figure 2: Bloom's Taxonomy Levels and the Relationship Diagram with Teachers, Students, and AI

(2) Bloom's Taxonomy Levels and Their Relationship With AI

To enhance the learning experience with AI and deliver tailored content, we incorporate three specialized roles for AI: Tutor, Tutee, and Tool. Each role distinctly enriches the educational journey by contributing uniquely to the overall learning process.

As a Tutor (covering levels 1 to 3), AI assumes the role of an instructor, offering students guidance and expertise, much like a traditional teacher. This role involves providing explanations, answering questions, and facilitating the understanding of fundamental concepts. AI tutors can personalize instruction based on individual student needs, adapting to their learning pace and style. This personalized guidance helps students grasp essential knowledge more effectively and build a strong foundation for further learning.

In the capacity of a Tutee (encompassing levels 4 and 5), AI engages with students by undertaking tasks assigned by them, facilitating the construction of knowledge. In this role,

AI acts as a learning companion, working alongside students to solve problems, complete assignments, and explore new ideas. This collaborative approach encourages students to take ownership of their learning, fostering critical thinking and problem-solving skills. By interacting with AI as a peer, students can experiment with different strategies, receive immediate feedback, and refine their understanding through iterative learning.

At its most advanced stage, as a Tool, AI transforms students' concepts into reality, actively generating content. This role allows AI to collaborate closely with students, enhancing focus and efficiency by equitably distributing the workload. As a tool, AI supports the creative process, helping students visualize their ideas, develop prototypes, and iterate on their designs. This hands-on interaction with AI tools empowers students to bring their concepts to life, bridging the gap between theoretical knowledge and practical application.

This multi-faceted integration of AI into the educational process, as illustrated in Figure 3, creates a dynamic and interactive learning environment. The synergy between human instructors, AI companions, and students fosters a rich, immersive educational experience that adapts to the needs of each learner. By leveraging AI in these distinct roles, we can enhance student engagement, promote deeper understanding, and cultivate essential skills for the future.

Moreover, as we continue to refine and expand this approach based on ongoing feedback from students and educators, we anticipate further improvements in learning outcomes. The integration of AI in education not only provides innovative teaching methods but also prepares students to navigate and excel in a technology-driven world. This progressive approach to education has the potential to revolutionize traditional learning models, making education more accessible, personalized, and effective for learners of all ages and backgrounds.

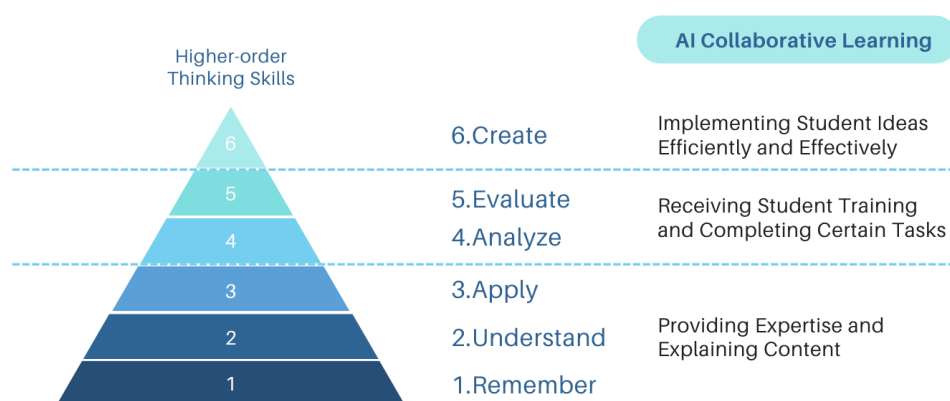


Figure 3: AI Tasks at Each Stage

Curriculum Design

This describes a traditional product design process, where our course focuses primarily on product representation techniques. The most critical step in the product development process is concept generation, which is when the product development team comes up with ideas. Concepts can be defined as preliminary descriptions of the product's technology, workings, and form, or as concise descriptions of how the product meets customer needs, as Ulrich and Eppinger pointed out in 2012. In the new product development phase, concept presentations typically emphasize the design team's visualization of the product concept proposals, and the

importance of visualization in industrial product design is well understood and widely researched. Early studies, like those by Goel in 1995 and Goldschmidt in 1991, explored the role of visuals in the thinking processes of designers.

Our study focuses on the second-year Visual Communication Drawing course at Asia University in Taiwan, which emphasizes drawing products and diagrams based on perspective principles. The course highlights the critical role of concept generation, starting with customer needs and specifications and concluding with various product alternatives. According to MICAL (NOBEL, 2013), this step is essential in the engineering design process.

Combining Bloom's Taxonomy with self-directed learning methods, the course design integrates teacher-led instruction, AI-assisted learning, and student self-learning. This approach emphasizes developing essential self-learning skills such as task awareness, setting learning goals, strategizing learning methods, and practicing reflection and adjustment.

Given that artificial intelligence is being introduced to the design drawing classroom for the first time, the initial approach involves traditional teacher-led instruction. This method utilizes the functional structure deployment of product design to help students comprehend the internal and external configurations of products. Additionally, worksheets are provided to assist students in setting standards and planning their progress. The basic process is illustrated in Figure 4.

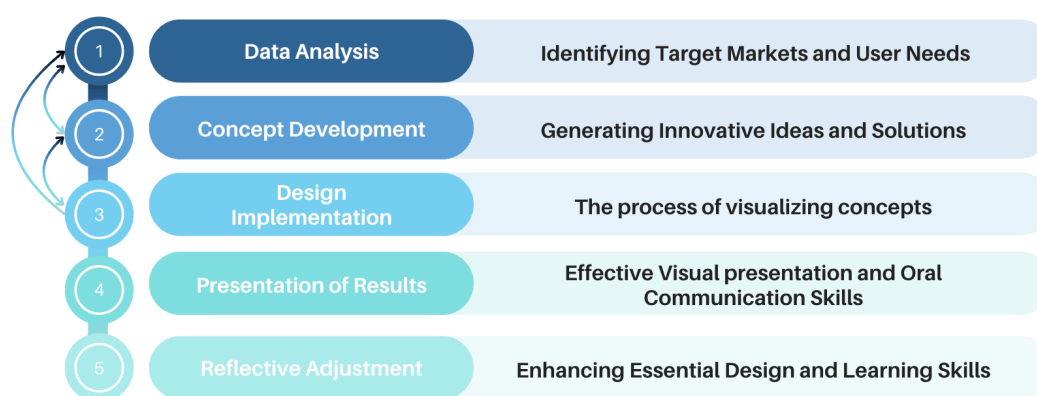


Figure 4: The basic process

In this course, ChatGPT and Microsoft Bing Image Creator are the primary generation tools used within a self-directed learning framework. Through a blend of student self-learning, AI-assisted learning, and teacher-guided instruction, students collaboratively complete course assignments. Initially, the teacher conducts a session to analyze the tasks, guiding students not only to understand AI but also to grasp relevant product design knowledge.

Following this, students use ChatGPT or Bing AI to generate prompts and Bing Image Creator to produce images. Once the images are generated, students proceed with selection and iteration steps, which constitute the debugging phase. This step requires students to make judgments based on human-centered design principles as advocated by Donald A. Norman, considering ergonomics and usability.

Gradually, students develop a rapport with their AI partners, resulting in the creation of usable product images. Finally, students engage in hand-drawing practice based on the generated images. Below are the main steps in the image generation process.

AI Image Generation Exercise: Coffee Machine Design

The coffee machine design exercise through AI image generation is structured into three meticulously planned phases:

1. **Functional Structure Deployment Phase:** In this initial phase, the team conducts a comprehensive analysis of the product's function, examines the basic structure, explores configuration methods, and begins shaping the form along with other preparatory steps. This foundational stage sets the stage for detailed design work.
2. **Prompt Phase:** Guided by the human-centered design principles championed by Donald A. Norman, a renowned scholar in cognitive science and human factors engineering, this phase focuses on the key concepts of discoverability and understandability. By adhering to these principles, prompts are meticulously crafted to steer the design process, ensuring clarity and ease of user interaction.
3. **Concept Proposal and Drawing Phase:** Following the generation of AI-assisted product images, the process advances by systematically observing the generated images. This observation leads to a phase of questioning, selecting, and iterating, which refines the design. Subsequently, the detailed drawings of the coffee machine and its explanatory diagrams are initiated. These visuals are meticulously crafted to adhere to strict design principles: they must comply with perspective drawing principles, uphold usability standards, and resonate with the designated style, blending functionality with aesthetic appeal.

Each phase is designed to build upon the last, ensuring a cohesive and thorough approach to designing a user-friendly and visually appealing coffee machine.

Result & Conclusions

The paired samples t-test analysis revealed a significant difference in the mean scores of design development between AI-assisted instruction and traditional instruction, $t(9.951)$, $p < .001$. The design development score with AI assistance was significantly higher than the score without AI assistance. As shown in the table 1.

	Mean (Standard Deviation)		df	t-value	p
	Form Development Ability in Traditional Teaching	Form Development Ability in AI-Integrated Teaching			
Score	66.18 (9.989)	76.77 (9.167)	55	9.951	<.001

Table 1: Dependent samples T-test

This study conducted a reliability analysis on a 17-item scale for measuring the effectiveness of AI in performance technique learning, with a test value of 3.5. In the school's teaching evaluation, the learning effectiveness of the course was rated 4.64 points, showing that students are positive about their learning effectiveness.

Compared to traditional teaching methods, initially introducing AI learning partners requires students to spend some time building a rapport with the AI. Under structured guidance from teachers, students can quickly adapt and harness the benefits of AI-assisted learning, thereby improving the quality and efficiency of their learning. During the concept generation phase, AI helps students produce more ideas, enhancing efficiency, precision in form comprehension, and visualization capabilities. The students' results are shown in Figure 5.

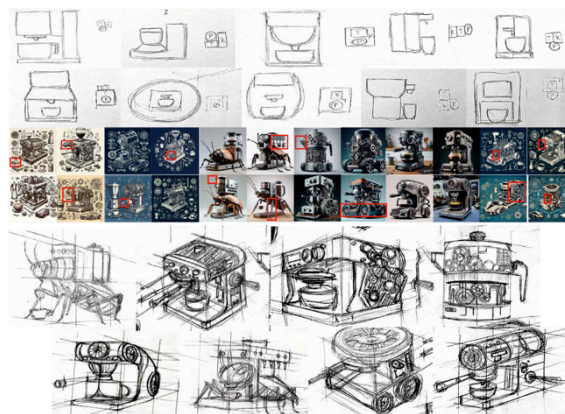


Figure 5: student course outcomes

To address any deficiencies that may arise from the introduction of AI in the classroom, we have established specific operation methods and processes:

1. Provide Study Sheets: These sheets will include directions for prompt word inputs, guiding students to construct sentences focusing on aspects such as shape, color, material, and surface texture. This structured approach will help students articulate their design ideas more effectively.
2. Iterative Verification: The images generated by AI are primarily based on visual art rather than dynamic analysis of actual user interaction with the product. As AI cannot fully comprehend or simulate human physical and psychological reactions, it is crucial to iterate on the visual distortions present in the AI-generated graphics. Particular attention must be given to human factors and usability to ensure the designs meet real-world needs and expectations.

By continuously refining these methods, we can ensure that the integration of AI into design education not only addresses its current limitations but also leverages its strengths to foster a more dynamic and effective learning environment.

In conclusion, integrating Bloom's Taxonomy with AI Learning Partners into a practical design course has proven to be highly effective. This innovative approach has facilitated a deeper understanding and application of design principles among students. Moving forward, we can further refine this teaching methodology based on student feedback to enhance innovation, creativity, and independence. This iterative process will significantly boost the learning potential and job market competitiveness of Taiwanese design students.

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Contact email: yayuyy@gmail.com

Study of the Variation of Words in Thai Language: LINE Stickers

Malisa Yotpradit, Hatyai University, Thailand

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The study of the variation of words in Thai language LINE stickers aims to present the results of a study of the variation of words in Thai language on various sets of LINE stickers. The data were purposively selected from 132 sets of LINE stickers with Thai words that are used to call people and made available in May 2023. There are a total of 4,724 stickers. The study found that of all the stickers with Thai words used to call people, there are 8 types of variation: phrases showing feelings, words for calling relatives, words for calling people by animal names, shapes, and features, transliterated words, dialects, occupations, and age. The variation type most frequently found was phrases expressing feelings on 940 stickers or 20.00 percent, words for calling relatives on 472 stickers, or 10.00 percent, and followed by transliterated words on 296 stickers, or 6.26 percent. Regarding linguistic variation, six types were found: variations of initial consonant phonemes, variations of final consonant phonemes, variations of vowel phonemes, variations of tonal phonemes, variations with the addition of consonants, and variations with the deletion of syllables. However, the format for changing words in the Thai language LINE stickers has changed according to periods. Moreover, the choice of words for calling or addressing people had to be consistent with the person, occasion, and social status of the communicators as well. The study suggests that the variation of words in Thai language LINE stickers reflects the creativity and diversity of the Thai language and culture, as well as the influence of globalization and technology on language use and communication.

Keywords: Types of Variation, Words for Calling People, LINE Stickers

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Introduction

Language variation refers to the different forms a language can take, which, while diverging from the standard form, remain sub-forms of the same language variant. Examples include ‘mai kwat’ and ‘mai fat’ (The Royal Society, 2013). Predicting which variation a user may choose at any given time is challenging, often leading the public to perceive language variation as arbitrary, without any factors dictating the choice of form or the interchangeability of variations. This phenomenon, known as free variation, challenges the view of linguists who argue that variation selection is not random but influenced by social factors such as gender, age, class, and place of residence (Charunrot, 2016, pp. 97-98). Consequently, social change invariably leads to language variation.

Address terms, integral to language usage, evolve with societal changes. Various factors within a society, including occupation, location, time, and race, influence language use. Gender, age, and the relationship between the speaker and listener also contribute to linguistic diversity (Sarawit, 2016, p. 171). ‘Calling words’ are employed to capture someone’s attention, enabling the speaker to proceed with communication. Typically placed at the beginning of a sentence, calling words can also recur within or at the end of a sentence, especially in dialogues. These terms encompass personal names, kinship terms, titles, and second-person pronouns, primarily addressing the listener (Phanthametha, 2015, pp. 138-139). Notably, such terms are prevalent across various communication platforms, including the LINE application.

LINE, an informal social networking app, has prompted Thai sticker artists to create LINE stickers featuring non-standard language to cater to user preferences (Sudhinont, 2020, p. 53).

These stickers serve as crucial tools for expressing emotions and sentiments, often substituting lengthy messages and reflecting linguistic shifts (Sudhinont, 2020, p. 54). This study aims to explore the word variations in Thai LINE stickers, which vividly illustrate the evolution of calling words in Thai society and the broader linguistic transformations in contemporary Thailand.

Objectives

To study the variations of words in Thai language LINE stickers.

Methodology

1. Sample Selection: A purposive sample of 132 sets of LINE stickers featuring Thai calling words was selected from a total of 4,724 stickers made available in May 2023.
2. Research Tool Development: A table was created to collect, classify, and analyze the Thai language LINE stickers based on the aforementioned criteria.
3. Data Collection and Analysis: The Thai language LINE stickers were collected, classified, and analyzed according to societal language use factors such as occupation, location, time, race, etc., including gender, age, and the relationship between speakers and listeners (Sarawit, 2016, p. 171).
4. Presentation of Results: The results of the qualitative analysis were presented rhetorically, accompanied by examples.

Results

The analysis identified eight distinct patterns in the variation of calling words used in Thai language LINE stickers, including phrases that express feelings, words used for calling relatives, animal names, physical appearance descriptors, transliterated words, dialect words, occupation-based words, and age-based words. The details are as follows:

1. LINE Stickers With Phrases Expressing Feelings

These are words used to convey emotions such as heartbreak, shock, happiness, sympathy, surprise, pity, doubt, and pain (Thai Language Institute, 2012).

The analysis of Thai language LINE stickers revealed variations totaling 940 images, representing 20% of all stickers. For example:

Example 1



(LINE Store, 2023)

This sticker is number 17 from a total of 132 sets of the LINE stickers, from the set “Hua Fu’s Chat Calling Words and Polite Conversations,” favored by fans.

The featured word “Oooohhhhhhhhhhhhhhhhhhh” [ʔûu hūu] denotes surprise, characterized by elongating the sound and adding the final consonant ‘w’ to “huuuuuu” [hūu].

2. LINE Stickers With Words Used for Calling Relatives

On the stickers, these terms function as pronouns for non-relatives, such as grandparents, uncles, aunts, and siblings (Prasitratsin, 1990).

The analysis revealed 472 images, accounting for 10% of all stickers. For instance:

Example 2



(LINE Store, 2023)

This is the first sticker from a total of 132 sets of the LINE stickers, from the set “This is Your Wife, and Your Wife’s Chatting is Lovely,” created by Artist Ongsa S.

The term “Papa” [paa cǎa] is traditionally used for ‘father’ but here refers to a husband, with the addition of “ja” [cǎa] to denote intimacy.

3. LINE Stickers With Animal Names as Calling Words

These include terms for various animals. The analysis of Thai language LINE stickers showed diverse patterns in the use of animal names.

It also revealed 280 images, accounting for 6 percent of all stickers. An example is:

Example 3



(LINE Store, 2023)

Sticker number 88 from a total of 132 sets of stickers, from the set “My Babe, My Boo, My You, My Love” by Artist Mango Charm.

The phrase “Ai Yuk Ma” [ʔaj júuk mǎa] is a playful term for a puppy or a baby, derived from “luuk ma” [lûuk mǎa], meaning ‘puppy’. The variation includes changing the initial consonant phoneme /l/ to /y/ or /j/ and altering the tone from a mid-tone to the rising tone /´ /.

4. LINE Stickers With Physical Appearance Descriptors as Calling Words

Physical appearance descriptors refer to terms that describe physical traits such as being fat, thin, dark-skinned, or fair-complexioned.

The analysis of Thai language LINE stickers identified a total of 291 images, accounting for 6.61 percent of stickers using physical appearance descriptors as calling words. An example is:

Example 4



(LINE Store, 2023)

Sticker no. 57 from the set “Khaimuan: Words for Use with Girlfriends or Boyfriends” by Khaimuan.studio.

It features the phrase “Where’s the fat?” [ʔûan jùu nǎj]. The term “fat” [ʔûan] describes someone with a plump build (The Royal Institute, 2013), used here in a playful manner within the question “Where are you?” [jùu nǎj].

5. LINE Stickers With Transliterated Words

Transliteration involves adapting words from one language into another by changing the script.

The analysis of Thai language LINE stickers showed the use of transliterated words totaling 296 images, accounting for 6.26 percent of all LINE stickers. For instance:

Example 5



(LINE Store, 2023)

Sticker no. 124 from the set “Riak Mae Si (Call Me Mom)” by Ladybam uses the phrase “Tua Mother” [tua maa thâw]. The term “Mother” [maa thâw] is transliterated to refer to someone who excels in a particular field, while “tua” [tua] is a classifier typically used for animals and objects (The Royal Institute, 2013).

6. LINE Stickers With Dialect Words

Dialects are regional variations of a language. The analysis of Thai language LINE stickers found the use of dialect words totaling 156 images, accounting for 3.3 percent of all LINE stickers. For example:

Example 6



(LINE Store, 2023)

Sticker no. 60 from the set “Luna: Wan ni khikhan ae 5” by RoboMolly features the phrase “Ple said it already...” [pên wâa léew]. “Ple” [pên] is a Northern Thai term for “I,” showcasing a dialectal shift from the standard final consonant phoneme /n/ to /l/.

7. LINE Stickers With Occupation-Based Words

Occupation-based words relate to one’s regular work. The analysis of Thai language LINE stickers highlighted the use of occupation-based terms totaling 163 images, accounting for 3.5 percent of all LINE stickers. As an example:

Example 7



(LINE Store, 2023)

Sticker no. 3 from the set “CoCo and Ichiko” by MEANMEAN includes the exclamation “Ho Chan” [hǎo caan]. The term “chan” [caan], derived from “Achan” (teacher or professor), is used before a person's name to show or praise the person's expertise or having knowledge in some subjects (The Royal Institute, 2013). The initial syllable of the word is omitted and preceded by the interjection “ho” [hǎo] to express shock or surprise.

8. LINE Stickers With Age-Based Words

Age represents the length of time a person has lived, from birth to the present moment. The analysis of Thai language LINE stickers revealed the use of age-based words, totaling 238 images, accounting for 5 percent of all LINE stickers. An example is:

Example 8



(LINE Store, 2023)

Sticker no. 111 from the set “Ikonmon 2” created by Immondeejackkhong features the phrase “my old person” [khon kèe khǎw khǎw]. The adjective “kae” [kèe] signifies being old or elderly, as in ‘old person’ or ‘old woman,’ (The Royal Institute, 2013) combined with the possessive “khong” [khǎw], meaning ‘of,’ and “khao” [khǎw], referring to oneself.

Conclusion

The study of calling word variations in Thai language LINE stickers identified common patterns: 940 expressions of feelings (20%), 472 references to relatives (10%), and 296 transliterations (6.26%). Additionally, six types of variations were observed, including changes in initial and final consonant phonemes, vowel phoneme variations, tone changes, added consonants, and syllable reduction. These findings are consistent with research on sound changes that reflect spoken sounds, influencing the current use of Thai sounds in LINE stickers (Sudhinont, 2020). The study highlights the extension of short vowel sounds into long ones to soften abruptness or convey pleading, mirroring spoken communication. Moreover, consonant sounds are sometimes altered, along with deviations in tone from the standard pronunciation. These trends illustrate the evolving preferences in the Thai language within Thai society. However, the choice of stickers should be made with consideration for the age, occasion, and social status of the conversational participants.

Recommendations

1. Further research should be undertaken to explore language variation in diverse contexts.
2. An examination of the changes in the Thai language across different applications is recommended to gain clear and comprehensive insights.
3. A study on the adoption of newly coined Thai phrases in contemporary society should be conducted.

Acknowledgments

I wish to express my sincere gratitude to Asst. Prof. Dr. Jomkwan Sudhinont for her invaluable guidance. I also extend my appreciation to the Thai Language Program, the Faculty of

Education and Liberal Arts, Hat Yai University for granting me the opportunity to present my research at the Asian Conference on Arts & Humanities (ACAH2024), organized by the International Academic Forum (IAFOR).

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Contact email: Yodpradit.a@gmail.com

Students' Visual Narratives Beyond Adversity

Jualim D. Vela, University of the Philippines Los Baños, Philippines
Romeleen S. Go-Vela, Catanduanes State University, Philippines

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The study investigated how students process and translate their ideas, concepts, and emotions into visual forms, symbols, and representations utilizing various visual elements and materials. The creative process involved channeling personal accounts, beliefs, cultural upbringing, and past or present experiences amidst the pandemic during the academic years of 2020 until it was lifted. Students' visual art compositions and concepts were analyzed to unravel both the superficial and in-depth meanings behind the utilization of various images in their visual narratives. The findings indicated the students tend to incorporate specific visual art elements, design principles, and art movements in creating a visual representation of their concepts, perceptions, and experiences.

Keywords: Visual Language, Language of the Arts, Visual Communication

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Introduction

The current cultural landscape is dominated by visuals. Visuals and images exert a powerful influence on the perception of the world, shaping an understanding of a societal landscape where symbols, icons, or signs play a major role in expression, information dissemination, and communication.

The contemporary world is bombarded with a constant stream of imagery. Upon waking, individuals engage with smartphones to access social media platforms (Lennox et al., 2018). Throughout the day, encounters with branding, both within and beyond domestic spaces, are interlaced with visual and textual content displayed on various electronic devices. Signage saturates streetscapes, while large-scale billboards dominate transportation routes. Communication often relies on abbreviated text, phrases, or pictorial representations. Notably, the current generation demonstrates a propensity for expressing emotions and ideas through social media platforms, utilizing symbols, icons, emojis, and emoticons to a greater extent than engaging in face-to-face interactions.

Visuals and images have become the driving force in communication in an increasingly visual society, especially with the advent of social media platforms and smart gadgets. Visuals, particularly manga and video game aesthetics, can even dominate how young people convey their views and ideas (Ito, 2012). And this was magnified even more at the outbreak of the pandemic.

Visual Culture

Visual culture studies the interpretation and comprehension of imagery encountered in everyday life. It focuses on how individuals decipher and perceive information, ideas, and meanings conveyed by visuals, both in routine and unconventional contexts. Visual culture examines how individuals connect specific images to personal experiences and observations. As Mirzoeff (2011) characterizes it, visual culture is a practice, a dynamic process that involves the creation, utilization, and interpretation of visuals. This approach emphasizes the active role of viewers and creators in shaping meaning from visual encounters. In academic settings, visual culture refers to the study of images or visuals through various lenses such as culture, social sciences, science and technology, art movements, and history to convey specific visual concepts. The rise of the internet, digital technology, and social media has greatly magnified and boosted the influence of the visual culture across generations.

Visual Perception

Visual perception involves understanding how audiences or viewers interact and give meaning to various visual stimuli in both artistic and ordinary contexts. It is the foundation upon which artistic creation and appreciation are built. It encompasses the complex interplay between the physiological processes of the eye and brain and our cognitive understanding of the world around us. Within the context of the arts, visual perception goes beyond simply registering light and color; it involves actively interpreting and making meaning of the visual stimuli encountered in a work of art. Artists employ principles like proximity, similarity, and closure (Gestalt principles) to organize their compositions. This creates a visually cohesive and impactful piece that guides the viewer's gaze and influences interpretation (Arnheim, 2004).

Visual Culture and the Pandemic

The COVID-19 pandemic in 2020 fundamentally altered the visual landscape. Images and information dissemination took center stage, influencing understanding and experience of this global crisis. It served as a tool for communication, entertainment, documentation, manipulation and politics. People who were in quarantine or isolation have tried to find ways to cope with the challenges posed by their situation, and one of their outlets is creating and sharing various images. Images have become an even more important element in the visual narratives of individuals experiencing difficulties or uncertainties and to those who are influencing the social structures and dynamics.

Visual Arts and COVID-19

The COVID-19 pandemic significantly impacted the visual arts world, not just in terms of how art was created and consumed, but also in the themes and messages explored by artists. The pandemic caused cancellations of shows, art workshops, and artist residences, and financial strains in both the artists and galleries. With art spaces, theaters, and museums closed due to the lockdown, art institutions and artists shifted to the digital domains, showcasing their art pieces through virtual exhibitions (Tallone et al., 2020). According to UNESCO (2023), the cultural and creative industries suffered worse than the national economies with a significant number of creative freelancers losing their jobs and income.

Artists' Response

The pandemic also saw how artists adapted to the pandemic situation. Their artistic activities were relegated to home-based engagements (Bradbury et. al., 2021). Many artists explored themes of self-reflection, isolation, confinement, and the psychological effects of the pandemic. From paintings, to sculptures, to installation art and even in comics (Callender et al., 2020), artists paid tribute to healthcare workers, essential service providers, and everyday heroes who kept society functioning during the lockdown. The pandemic also sparked works addressing social inequalities, anxieties surrounding government responses, and the fragility of global systems.

The Study

This study aimed to explore how university students adapted their artistic practices in response to the challenges of the pandemic. The study examined the ways in which students incorporated elements, symbols, styles, and ideas into their visual creations under these unique circumstances. Specifically, the study seeks to understand how students translated their thoughts, feelings, and experiences into visual representations during this unprecedented time.

The students who participated in the study were non-fine arts majors. Majority of the student participants are those majoring Agriculture, Veterinary Medicine, Applied Physics, Nutrition, Biology, Development Communication, Forestry and Computer Science.

The study is descriptive, focusing on how students utilized specific visual elements, forms, and materials to convey their ideas or concepts beyond the literal images of their creative outputs. Analysis of students' artworks centered on thematic frequency distributions in the following areas, the art movements or styles that they have chosen as references, the visual

elements, icons, and or symbols they incorporated in their design, the materials that they used, and their written rationale or write-up discussing the general and specific ideas behind their artwork.

This study investigated three key questions related to student artistic expression during the pandemic:

1. How did students translate their thoughts and concepts into visual representations?
2. What visual elements (line, color, shape, etc.) were prominent in the students' designs, and how did they justify their use in their compositions?
3. What specific circumstances arising from the pandemic influenced the students' creative process and the final artworks?

The data used in this study were the visual artworks of students under the Arts 1 general education course of the University of the Philippines Los Baños spanning the pandemic years of 2020 until the easing of the lockdowns in 2022.

For an Arts 1 activity exploring the language of visual arts, students created artworks based on the following instructions:

1. **Art Movement Selection:** Students had the freedom to choose an artistic reference point from a broad range, spanning Classical and Renaissance periods to Dadaism and Post-Modernism.
2. **Composition and Concept Integration:** They were then tasked with planning a visual composition that incorporated their chosen art movement in relation to their own developed visual concepts.
3. **Visual Representation and Expression:** Within this composition, students created specific visual representations that embodied their ideas and how they connected to the chosen art movement or style.
4. **Artistic Freedom in Materials and Elements:** Students were encouraged to utilize any visual elements (line, color, shape, etc.), icons, and symbols in two- or three-dimensional formats – whichever best suited the needs of their concept. They were also free to choose materials they felt were most appropriate for the composition or that they were comfortable using.

Discussion

The study investigated how students process and translate their ideas, concepts, and emotions into visual forms, symbols, and representations utilizing visual elements, art styles, or art movements. The creative process involved channeling personal accounts, beliefs, cultural upbringing, and past or present experiences amidst the pandemic during the academic years of 2020 until the latter part of 2022. Students' visual art compositions and concepts were analyzed to unravel both the superficial and in-depth meanings behind the utilization of various images in their visual narratives.

The results show that a majority of the student respondents develop and translate their ideas or concepts into visual representations by combining certain visual elements, symbols, and icons into their visual compositions. Students also utilized materials available at home or in their dormitory mainly due to the constraints posed by the pandemic lockdown.

Findings

Students gravitated towards art movements that aligned with their need for self-expression, such as Expressionism and Cubism. Pop Art's use of familiar imagery and Post-Modernism's questioning of norms were also prominent choices. The use of fundamental visual elements like shape, color, and line suggests a focus on clear communication and impactful imagery. Design principles like contrast and emphasis/subordination helped students deliver clear messages, while rhythm and balance offered a sense of order and stability during a disruptive time. The primary inspirations for students' artwork were the pandemic itself, personal reflections, and a focus on aesthetics and expressing emotions. Additionally, personal well-being, intellectual musings, and advocacy for social and environmental issues also played a role.

Conclusions

The findings indicated the students tend to incorporate specific visual art elements, design principles, and art movements in creating a visual representation of their concepts, perceptions, and experiences. Students' visual ideas or concepts indicated a variety of sources of influences from their pandemic experiences, to personal reflections and to purely aesthetic focus of creating their artworks.

This study highlights the power of visual art as a tool for self-expression, particularly during challenging times. Students utilized art to process their experiences of the pandemic, explore their emotions, and potentially find solace or meaning. Understanding these motivations can inform art education practices and encourage the use of visual arts as a means of communication and emotional exploration for students.

Further studies could focus deeper into the specific ways pandemic, calamities and other circumstances influenced the content and style of students' artwork. Additionally, exploring the role of art education in facilitating students' use of art for self-expression during challenging times would be valuable.

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***Design-Integrated Local Industry Revitalization Strategies:
Discuss the “T22 Local Industry Revitalization via Design Project”***

Shun-Yao Chiang, National Yunlin University of Science & Technology, Taiwan
Shyh-Huei Hwang, National Yunlin University of Science & Technology, Taiwan
Shu-Yan Wang, National Yunlin University of Science & Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Since 2019, the Taiwan Design Research Institute (TDRI) has been spearheading the "T22 Local Industry Revitalization via Design Project," employing design thinking and cross-domain collaboration to foster local innovation. Commencing with the "Ceramics Production Area - Yingge," followed by the "Urban Agricultural Production Area - Beitou," the "Stone Production Area - Hualien," and "Manufacturing in Changhua," TDRI is dedicated to revitalizing local industrial chains. Leveraging professional teams from both domestic and international organizations, the institute collaborates to address challenges within local industries. This study delves into the T22 strategy, focusing on the role and potential impact of TDRI within the "Design to Revitalize Local Industries Program." Recognizing design as a cross-disciplinary and integrated approach, it is deemed pivotal for the innovation and sustainable development of local industries. By examining the practical application of T22 in the industry, the study hones in on potential mechanisms driving the upliftment of local industries. The analysis reveals that: (1) Guided by design thinking, TDRI prompts local industries to reevaluate market needs, subsequently creating innovative solutions aligned with consumer expectations. (2) Fostering competitiveness among industries stimulates healthy competition and joint development, promoting diversified growth in the local economy. (3) Assisting industries in adapting to environmental changes enhances their global competitiveness. (4) Promoting innovation and sustainable development in local industries serves as a reference for government administration, facilitating collaboration between the industry and design sector through the program's success stories.

Keywords: Local Industry Revitalization, Social Design, Design Integration

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1. Introduction

Under the influence of globalization and modernization, local industries are not only tied to economic considerations but also to social issues. Social design is an integrative concept that provides powerful tools to deeply understand and improve the relationship between local industries and cultural governance, emphasizing local characteristics.

This paper explores the observation of local industries from the perspective of social design, delving into the relationship between the two, the challenges they face, and the opportunities they create.

In the realm of business and society, design plays a critical role. For industries, design is not just a structured creative process but also a competitive tool that gives companies or businesses a unique advantage. Thus, design is seen as a transformative force with the potential to meet a wide range of social needs.

Compared to large enterprises, local industries face more risks and uncertainties. They are also relatively weaker in handling crises. Therefore, activities such as process innovation and new product development are key to sustainable survival. Excelling in efficiency, cost, and transformation determines the innovative development opportunities.

2. Background and Motives

This study focuses on the Taiwan Design Research Institute's (TDRI) recent initiative, the "T22 Regional Revitalization Project" in Taiwan. It investigates the impact of design strategies on local industry innovation and sustainable development. When promoting the T22 project, TDRI integrated local industries, local governments, and local tourism resources to support its efforts. The project introduced strategies such as "One Star Locality," "Local Industry Academy," "Cross-Industry Collaboration," and "Open Factory" leveraging marketing guidance and international channel expertise. They organized lectures, workshops, and meetings with relevant stakeholders, aiming to cultivate local shop CEOs, encourage collaboration among businesses in the same region and industry, build community solidarity, and promote joint product development. This approach aims to strengthen the local supply chain, encourage industries to open their factories to the public, allowing people to engage in the manufacturing process and build trust in the brand.

Therefore, this study uses the Tai Hwa Pottery in Yingge, New Taipei City, as a case study. It involves data collection and interviews with project managers to identify the pain points, and opportunities, in local industry governance. The goal is to provide concrete recommendations and enhance the understanding of the role of design in the development of local industries.

3. Case Study

The literature review covers topics related to local industry revitalization, regional regeneration, social design, and design thinking. It aims to contribute to a deeper understanding of the research focus.

3.1 Introducing Design Into Local Industry

The current global market is trending towards product similarity competition. Both theory and practice emphasize that product homogeneity significantly reduces the intensity of competition concerning horizontal acquisitions or collaborations within concentrated industries. However, introducing a measure of product similarity within the industry helps rationalize existing data. This process provides new evidence on whether horizontal acquisitions enhance the market power of the acquiring party and its industry while potentially increasing competitors' market power. Consequently, most studies focusing on the anti-competitive effects of horizontal acquisitions highlight the relationship between "industry concentration" and measures addressing these impacts. They rarely consider whether the industry has similar or differentiated products. Existing theory and practice indicate that when industry concentration and product similarity both increase, horizontal mergers are particularly effective in enhancing the market power of existing companies (Fathollahi, M., Harford, J., & Klasa, S., 2022).

Moreover, products with local characteristics, including local produce and cultural values, gradually become unique local specialties. This uniqueness often attracts consumer preference and attention to product development. Such products provide a unique and differentiated experience (Lin, 2007; Moalosi et al., 2007). Therefore, "the more local, the more international" becomes a market marketing strategy where traditional industries inject local characteristic elements into their products to create self-expressive market strategies. Products with local characteristics may also make the production area a potential unique market, establishing a unique image in the market (Dillon, 2008).

3.2 Verifying Social Design Using Design Thinking Models

Japanese social designer Yusuke Kakei defines social design as "the act of using human creativity to seek solutions to complex social problems."

Shih Yu-Hua (2022) mentioned that sociological research might end with analyzing the current situation, identifying problems, and discussing and focusing on certain issues through thesis analysis and discourse. In contrast, social design borrows research methods from social sciences and observational perspectives on power structures to initiate the early exploration process. Therefore, incorporating "design" emphasizes methods for solving problems or innovatively transforming existing issues. Liu Yu-Cheng (2020) also believes that sociology tends to reflect on the past, criticize the present, and imagine the future, while social design focuses on solving current social problems and further practicing and changing society. Starting from the concept of social design, it highlights the value of social design.

Papanek, V. (2013) argued that previous industrial design was merely for consumer products, advocating that designers should serve society as a whole and the groups in need. Whiteley, N. (2020) explored green consumption and feminism, discussing design from this perspective, thereby linking these fields to sociological viewpoints to examine social design. This also reflects the production and consumption patterns of capitalism.

In social design, "creative thinking" is an essential part of the design process. Through continuous innovation and prototyping, designers strive to find the best solutions (Huang Shi-Hui, 2023).

Žáková et al. (2015) proposed four different levels of design intensity. The first level involves products with no design, where production almost doesn't involve design, and the enterprise lacks professional designers. The second level sees design as a decorative styling task that designers or other professionals can accomplish. The third level treats design as a process, influencing product development from the beginning. The fourth level considers design as an innovative method, where designers collaborate with owners or managers to transform the entire enterprise or achieve basic consumer market goals. Comprehensive thinking helps designers understand the impact on and recognition of the entire system environment, including environmental and social aspects. By linking aesthetics and functionality through design, they create more attractive designs that establish an emotional connection with users.

3.3 Regional Development for Revitalizing Local Industries

In the trend of global regional competition, shaping regional identity can stimulate local economic development. However, regional development is not solely about the economic development of a single area. For national development, strategies based on local identity, environment, and tourism economics should be combined with local emotions and homeland awareness (Wang Zhi-Hong, 2012). Moreover, from the perspective of enhancing regional competitiveness through cultural industries, cultural assets and local resources can promote the sustainable development of the local economy (Santagata, 2002). Therefore, revitalizing local industries requires familiarity with the local area and timely intervention by design teams or designers. This can stimulate local personnel's cognition and ideas about their local industry. Designers can help solve local industry problems and act as catalysts for change, using design knowledge to create new business markets and redefine support for traditional local industries through field research and literature (Tung, 2012). Introducing design strengthens cultural governance concepts within industries, clarifies humanistic contexts, and showcases the depth and strength of industrial culture.

3.4 Industry Strategies Guided by ESG

In the era of globalization, society is shifting towards a knowledge-based model. Harris, M. (2000) emphasized three concepts of sustainability. First, "economic sustainability" refers to the ability to continuously produce goods and services, ensuring sustainable government development. Second, "environmental sustainability" involves ecosystems, including biodiversity and environmental stability. Finally, the concept of "social sustainability" is defined as achieving equality and providing social services such as health and social education (cited in Bawono & Rahmana, 2021). Emphasizing design should focus on sustainable development, promoting industries to achieve economic, social, and environmental triple benefits. Industry strategies guided by ESG (Environmental, Social, Governance) focus on environmental protection, social responsibility, and corporate governance.

4. Research Design

4.1 Research Objectives

- 4.1.1 To analyze the perspectives of local industry strategies promoted by the Taiwan Design Research Institute (TDRI) through the T22 Project.
- 4.1.2 To analyze the impact of introducing design into local industries.
- 4.1.3 To explore the importance of design in the application of local industry strategies.

4.2. Methods & Materials

Based on the research objectives, this study conducts an investigation of existing local industries through literature review and field surveys. Data is collected by interviewing project managers from the Taiwan Design Research Institute (TDRI) and the manager of the Yingge Tai Hwa Pottery. The aim is to clarify the changes local industries face after implementing innovative design. By using grounded theory to analyze the interview data, the study organizes the data and examines the respondents' perspectives on the impacts and effectiveness of design implementation. The goal is to develop a mechanism for tracking these impacts and results. Furthermore, the findings are expected to influence and assist public sector decision-makers in understanding the strengths and weaknesses of policy promotion, providing feedback for future design innovation investments and evaluating potential design methods.

5. Findings of Research

5.1 Operational Status and Management Strategy of Tai Hwa Pottery

Tai Hwa Pottery established in May 1983, specializes in the production of imitation antique hand-thrown ware, bisque, and monochrome glaze ceramics, primarily for export to Hong Kong and the United States. In 1988, the company established the "Brilliant Art Studio" to focus on colored porcelain techniques, specializing in traditional styles such as famille rose, doucai, and Japanese Kutani ware. These products are exported to Japan, Italy, the United States, France, and the United Kingdom, which means that Tai Hwa Pottery's operational customer base has always centered on high-priced art ceramics. However, as the company mainly engages in OEM, its self-developed products have not been able to reach the level of art pieces. Instead, they become cultural and creative products or are combined with designers' dual-brand collaborations. However, these often follow trends and stagnate after the hype dies down. The brand manager noted that for the same design, some people might think there is no need to buy the designer version since it is the same thing and will prioritize price as an important consideration.

"So sometimes it turns out that even though the designer's work looks beautiful and attractive, consumers do not buy it. Therefore, transforming it into sales and benefiting the industry is quite challenging."

5.2 The Impact of Industry Structure on Cooperation Among Peers

Tai Hwa Pottery focuses on porcelain art pieces within Taiwan's ceramic industry, with prices higher than those of typical ceramic sellers. However, through the T22 Project, Tai Hwa Pottery has begun to consider cooperation and exchange with other local industry

players. Lu Jia-Wei also noted that the era of fighting alone is over, and mutual cooperation among peers to promote the common brand of Yingge ceramics is crucial in this era.

The T22 Project embodies the comprehensiveness of business operations for Tai Hwa Pottery, fostering inter-enterprise cooperation. Each business in the Yingge industry has its own customer base, but to integrate and respond to market ecological changes to create new opportunities, it is essential to understand one's market orientation. The T22 Project introduced some concepts of cooperation, stating,

"In the past, there was no cooperation. Now, you need to cooperate anew, and apart from emotional factors, you need to point out a new market direction that compels cooperation. So, the real situation is still the changing circumstances slowly affecting the locality "

For Tai Hwa Pottery, the concept of a group effort under T22 is like a spark. Through collective cooperation, they are beginning to see changes in Yingge and a glimmer of hope. The T22 Project emphasizes the spirit of mutual prosperity, and the cooperation model is undergoing transformation. Previously, due to the large volume of single orders, individual manufacturers found it difficult to complete production independently, necessitating cooperation. However, with changes in economic conditions and a reduction in order volume, individual manufacturers may face new challenges.

5.3 Impact and Renewal Brought by the Next Generation's Succession

The T22 Project has prompted Tai Hwa Pottery to consider establishing better interaction models between different generations, achieving cross-generational integration of knowledge, experience, and values. This helps family businesses better cope with changing times, achieve generational inheritance, and sustainable development. Through the T22 Project, Tai Hwa Pottery participated in significant activities and exhibitions in Yingge. While previously the focus was on the recognition of their own products, the involvement of T22 has broadened the brand's reach, attracting customers beyond the traditional client base. This has undoubtedly helped Tai Hwa Pottery to expand its influence and promote the brand positively. The new environment poses challenges for successors who need to continue operations amidst this evolving cooperative model. Particularly because past cooperation models are no longer applicable, re-establishing cooperative relationships requires going beyond emotional factors and finding new market directions. *"These second-generation successors of ceramic businesses each have their unique techniques, such as celadon, glaze, and molds. By integrating these, they can better meet the high demands for design and product forms, thus enabling cooperation."* Facing the market direction of group efforts forces the cooperation of Yingge ceramics' second-generation successors, creating a synergistic effect in the competitive market.

5.4 Integration of Customer Base and Adjustment of Product Positioning

Previously, Tai Hwa Pottery also collaborated with designers and artists, including well-known and experienced Taiwanese designers. However, through the T22 Project, they had more opportunities to meet young designers, leading to a focus on product rejuvenation, with a noticeable trend of attracting a younger customer base. The promotion of the T22 Project has significantly helped the industry's ecosystem by building an organic ceramic industry chain through collaborative cooperation, sharing resources, and technical cooperation. Young

managers not only run their businesses with new concepts but also jointly manage the future of Yingge by establishing the "Tao Ciwa Generational Cooperation Association."

"We just want to do things well. Under such circumstances, this association was formed. We believe that young people, using their ideas and resources, can organize various activities related to the Yingge industry successfully."

This cooperation stimulates the new generation to recognize the power of change. By combining their ideas and resources, young people can collectively manage events well, which not only completes tasks but also strengthens cohesion through seamless cooperation among peers, thus making the industry ecosystem more robust.

5.5 Sustainable Innovation and Expansion of Successful Experiences

Through T22, people have noticed gradual changes in Yingge, as it has been in decline. This decline is not only on the sales end but also includes technical deterioration. Previously, many ceramic factories in Yingge closed down or relocated, replaced by inferior foreign ceramic products. Tai Hwa Pottery insists on its high-priced art porcelain route. However, facing a shortage of skilled personnel is currently their most urgent problem. Training and improving technical skills have always been challenges they must address. Therefore, the intervention of the Design Research Institute, besides introducing design concepts, also reflects on technical improvements and adjustments, leading to industry changes.

Lu Jia-Wei mentioned that the main impact of T22 on Yingge is local revitalization and regeneration. These two aspects can rejuvenate local industries. Currently, Yingge is their first and most successful implementation site. Therefore, Tai Hwa Pottery frequently reviews whether such cooperation projects will continue and if they can serve as a model for related cases in Taiwan.

Participants in Yingge who joined T22 collectively stated that when the Design Research Institute assisted in implementing the plan, they did not act as instructors dictating how these businesses should operate. Each industry and enterprise had its unique problems, so a one-size-fits-all approach was not feasible. Therefore, T22 has always played an accompanying role, avoiding excessive intervention and guidance, allowing industries to identify and solve their problems.

6. Research Results

According to the Taiwan Design Research Institute, Taiwan has always been a solid pillar of manufacturing, renowned worldwide for producing high-quality "MIT (Made In Taiwan)" products. Despite Taiwan's small size and dense population, it possesses strong industrial capabilities and excellent talent. However, with changing times, Taiwan's industries face unprecedented pressures for transformation and discontinuity.

In response to this transformation trend, the Ministry of Economic Affairs launched the "One Town, One Feature" plan in 1989, aimed at assisting SMEs to develop high-value-added cluster economies based on local characteristics combined with the knowledge economy concept. However, there is a clear gap between traditional manufacturing and innovation. Existing local support models typically target single cases rather than the overall development of the locality. Taiwan's manufacturing industry is mostly cluster-based and is

facing the challenge of "generational transition." Although the younger generation is willing to take over, they do not fully agree with the older generation's management methods and lack plans and directions for reform. Achieving transformation and innovation requires a well-thought-out plan and strong support for continued development.

Against this backdrop, the T22 Design Revitalization Local Industry Project offers a new solution aimed at promoting local revitalization. Based on Taiwan's 22 counties and cities, the project uses design thinking as its core to reintegrate manufacturing, marketing, and distribution resources, collaborating with professional teams domestically and internationally. Through such collaboration, T22 aims to assist local development, strengthen connections with the consumer market, help local industries overcome various difficulties, and create more value. This project is characterized by its comprehensiveness and forward-thinking, hoping to bring more momentum and development opportunities to Taiwan's industries.

6.1 The Value and Vision of Local Industry Transformation

The history of local industries in Taiwan can be traced back to the 1960s, when the economy was predominantly driven by OEM (Original Equipment Manufacturer) industries, forming uniquely characteristic industrial clusters in various regions. The rise of these clusters was primarily due to the relatively low labor costs at the time, which attracted a large influx of orders. However, with the improvement in living standards in Taiwan during the 1980s and 1990s and changes in the global economy, OEM orders gradually shifted to other regions, presenting industrial clusters with the challenge of transforming their business models. This necessitated local industries to seek new development directions to adapt to this transformation.

This transition indicates that industrial clusters can no longer rely solely on a single business model but must face more diversified development challenges. The transformation challenges encompass not only productivity shifts but also profound changes in business models and market positioning. To address these challenges, local industries need to pursue more competitive and sustainable development models.

In recent years, with the rapid development of the global economy, the rise of emerging technologies, and consumers' continuous pursuit of quality and innovation, local industries no longer focus solely on price competitiveness but increasingly emphasize value creation and brand building.

6.2 Innovative Design Thinking for Sustainable Operation

In the process of exploring solutions, the T22 project team noticed that Taiwan has accumulated numerous cases in local revitalization and industrial transformation. These cases span multiple levels, from central government to individual participation, forming a wealth of practical experience. However, it is recognized that these efforts often display fragmented characteristics, lacking overall coherence and coordination. Individual participation cases might be attempts to promote local revitalization, but they often lack a professional and effective design thinking model despite the enthusiasm. At the government level, there are some budget-based subsidy programs, but they are often constrained by annual budgets, making it difficult to meet the needs of cluster-based revitalization.

Although the government has also actively proposed various industry upgrade plans and technology transformation policies to promote the integration of local industries with technological development, pushing for smart manufacturing, green industries, and other emerging field projects, these policies, while helpful in enabling local industries to more effectively respond to transformation challenges and incorporate innovative elements to enhance competitiveness, also require dedicated units for collaborative assistance. Such measures are more likely to successfully drive local industries towards a more vibrant and sustainable future.

6.3 Changes in Innovative Industry Business Models

Given the current decline of local industries, the Taiwan Design Research Institute has set the goal of transforming regional industrial clusters. Each year, different plans are promoted to facilitate gradual changes with comprehensive support and multi-faceted intervention. The aim is regional transformation, which distinguishes itself from other isolated or annual plans by employing a variety of methods to pursue overall synergy. Faced with changes in new business models, proactive deployment is essential. These transformations not only concern economic benefits but also emphasize social and environmental sustainability. By offering customized, high value-added products and services, local industries can stand out in the highly competitive market. The T22 plan clearly focuses on timing, comprehensiveness, and a long-term, gradual transformation approach, reflecting a well-considered, holistic strategy aimed at achieving success in regional transformation.

Additionally, beyond changes in the operational structure of industries themselves, customer demands are also evolving due to broader environmental changes. Starting decades ago with the shift of orders to China or Southeast Asia, and more recently to India, the demand and competitive conditions for orders have become increasingly stringent. Global trends are now shifting towards emphasizing sustainability, environmental protection, and the enhancement of various production facilities. This means that the manufacturing industry faces higher standards and requirements, needing to comply with evolving global standards to meet rising expectations for product quality and production environments. Such changes not only affect the nature of orders but also prompt the manufacturing industry to readjust its production processes to align with market trends that increasingly prioritize sustainability and environmental values.

7. Conclusion

Tai Hwa Pottery has always had a clear industry position among its peers in Yingge. However, joining the T22 plan this time has also made them start to pay attention to the harmonious relationship between their peers, aiming to establish a complete industry chain through cooperation among peers. With the changing times, Yingge is also facing the challenges of second-generation succession, industry transformation, and internal system adjustments.

For Yingge, the shortage or instability of clay sources greatly affects prices and quality, which are imminent risks. The T22 plan is an important project for the transformation of Taiwan's manufacturing industry and the revitalization of local industries. Facing the pressure of traditional counseling models and the demand for local industry transformation, the T22 plan is based on the 22 counties and cities across Taiwan, with design thinking as the core, integrating multiple resources, dedicated to assisting the development of production areas,

strengthening the connection with the market, and creating more value. The T22 plan fully considers global market trends, especially the rise of sustainability and environmental protection, providing comprehensive solutions to meet modern market demands. Through in-depth analysis of the background of local industry transformation, the T22 plan has become a brand-new platform, providing more comprehensive and systematic support for the development of industrial clusters, bringing lasting and comprehensive revitalization opportunities to Taiwan's manufacturing industry.

Acknowledgments

Thanks to the Taiwan Design Research Institute (TDRI) for implementing the Ministry of Economic Affairs plan (112-374) and entrusting the Intelligent Regional Design Service Research Center of National Yunlin University of Science and Technology for assistance. This research is primarily based on the facts discussed.

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Contact email: jonamai@gmail.com

Investigating the Impact of Digital Game-Based Learning on Musical Education

Mingke Jiang, New York University, United States
Chun Qian, New York University, United States

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In this study, we investigated the impact of digital game-based learning (DGBL) on learners' musical learning, in particular in piano performance. 30 piano majored students were recruited from a southern Chinese university and we expanded our previous work by using qualitative data analysis. Specifically, we adopted a thematic analysis through one-on-one interviews. We found several initial themes from this work, i.e., motivation and engagement enhancement, learning autonomy, and skill acquisition improvement. Our findings advocate for the integration of DGBL into music education to enhance the learning experience and point the way for future research to address existing challenges and expand the use of DGBL in a variety of educational settings.

Keywords: DGBL, Music Education, Qualitative, Higher Education, Piano

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Introduction

Emerging technologies have enabled the implementation of DGBL in various educational fields. Research on its effectiveness has spanned multiple disciplines, including STEM (Plass et al., 2020) and languages (Xie & Huang, 2022). However, the application of DGBL in music education has not been widely explored and remains limited compared to these fields (Chauhan, 2017).

Music education plays a vital role in the overall development of learners. Hargeaves and North (1997) noted that musical learning could cultivate students' appreciation of music, maintain their interest and improve their concentration. In addition, learning music is anchored in its potential to enhance learners' cognitive, emotional, and social development. In other words, music education is not merely a form of artistic expression but a catalyst for growth academically and personally. It can improve memory, attention, and reasoning skills, which are beneficial across all areas of study (Schellenberg, 2005). Nevertheless, while learning music, many students could have a sense of discouragement during the procedure of playing unfamiliar melodies using non-familiar instruments in conventional classrooms. Other than this, the school systems oftentimes prioritize "serious" academic subjects (e.g., STEM) for the sake of academic achievement. Such an oversight could lead to a significant underutilization of music education's potential to contribute to a well-rounded academic experience.

Thus, we call for more attention to address music education. This article aims to address the gap in the application and evaluation of DGBL in music education within higher education contexts. By exploring how DGBL can be effectively integrated into music curricula, this study seeks to demonstrate the potential for the enhancement of piano learning skills.

Literature Review

As the advance of technology, researchers have explored how emerging technologies could afford learning (Xie et al., 2024). Digital game-based learning (DGBL) refers to a method to promote learning and improve educational outcomes through digital games. Such an approach originates from the intersection of computer science and social science, and applies digital games on computers and mobile devices to educational settings.

Research has indicated several advantages of DGBL in education. Based on Chen et al (2020), they conducted a meta analysis reviewing the empirical studies from a twelve year perspective. Results showed that DGBL was efficacious in the field of STEM and language, however, no salient effect was detected in other subjects. Compared to other aged group learners, DGBL was efficient for students in K-12 and tertiary levels. Echoing Raziunaite et al (2018), they found that the development of educational musical computer games for preschool children has demonstrated great interest and engagement, which enriched the learning process with elements of creativity and emotional learning. In the language educational field, for instance, Xie and Huang (2022) explored how DGBL could be leveraged to support 98 high school English as a Foreign Language learners' grammar learning in China. Quantitative results from the quasi-experimental design indicated that students who adopted DGBL outperformed those who utilized the conventional methods. In other words, DGBL could be used as an efficacious tool and made learning more engaging, which provided implications for supporting those who sensed difficulty or less engagement while learning. This study aligns with the results of Chen et al (2020)'s finding. Moreover, in STEM education, for instance, Wang and Zheng (2021) examined the effect of DGBL on Chinese middle schoolers' science learning performance using

the experimental design, where they found that learners in the DGBL group outperformed those who did not. Furthermore, when DGBL was combined with instructor assistance, it could lead to higher mean scores of learners in music classrooms (Lesser, 2020). Other than this, STEAM-based digital learning applications in music education have been proven to increase students' creativity, improve music learning, and boost interest in lessons, making learning more effective and enjoyable (Özer & Demirbatir, 2023). Overall, DGBL plays a crucial role in modernizing music education, making it more interactive, engaging, and effective in fostering musical skills and knowledge acquisition.

Despite its potential, DGBL faces challenges and criticisms, particularly concerning the quality and design of educational games and their effectiveness in achieving educational goals. For example, the optimal approach to measure the effects of DGBL embedded in formal education remains debatable. However, as digital technologies continue to evolve, this technology remains a promising area for enhancing learning experiences across various disciplines.

Methodology

In this study, we extended our work from Qian and Jiang (2024) and aim to explore the influences of DGBL on Chinese university students' piano skills improvement from the qualitative perspectives.

Participants

In the fall semester of 2023 to 2024, we recruited our 30 medium-level participants from a university in the southern part of China. All of them majored in arts and performance, specifically in piano. We previously conducted a quasi-experiment during this semester. Based on our previous quantitative results, learners in the experimental group outperformed the control group. However, it is needed to understand from the students' perspectives with regard to the effectiveness of DGBL in this sense. Thus, we expanded the work (Qian & Jiang, 2024) on inquiring students' perceptions with regard to their experience in DGBL. After the DGBL intervention, we followed up on one-on-one interviews with participants who utilized the tool.

Results

In this study, we employed thematic analysis concerning the data analysis. Specifically, the thematic analysis of the one-on-one interviews conducted post-DGBL intervention yielded initial key themes that highlight the perceptions and experiences of the participants regarding the use of digital game-based learning in enhancing their piano skills. The three key themes are listed as follows, i.e., motivation and engagement enhancement, learning autonomy, and skill acquisition improvement (see Table 1).

Key Themes	Descriptions
Motivation and engagement enhancement	Many participants reported that DGBL significantly increased their motivation to practice piano. The gamified elements of the learning tool made the practice sessions more engaging and less monotonous, encouraging students to spend more time practicing and exploring new pieces.
Learning autonomy	Participants noted that the DGBL platform enabled a more self-directed learning experience. They appreciated the ability to control their learning pace and revisit complex sections as needed, which is often less feasible in traditional piano instruction settings.
Skill acquisition improvement	A number of students highlighted specific skills that were improved through the use of DGBL, such as sight-reading, rhythm accuracy, and finger dexterity. The interactive nature of the digital games provided immediate feedback, which was crucial for correcting mistakes and refining technique in real-time.

Table 1: Key Themes of Interviews

Conclusion

This study clearly demonstrates the great potential of digital game-based learning (DGBL) to enhance piano instruction in higher education. Through in-depth interviews with 30 university students, we gained a deep understanding of the effectiveness of DGBL in improving the motivation, engagement, and self-directed learning of students in arts and performance majors, especially in piano learning. The results highlight the importance of incorporating DGBL into music instruction, which not only makes the learning process more engaging, but also improves teaching effectiveness. Although we encountered some technical challenges and content limitations, the generally positive feedback from students shows that DGBL can indeed play a key role in modern music education. Future researchers should continue to explore this area, overcome these challenges, and apply DGBL to a wider range of music disciplines and educational settings. Ultimately, we hope that educational institutions can use these digital tools to create a more dynamic, efficient, and enjoyable learning environment for students studying music.

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*Religious-Digital Activism in the Time of COVID-19:
A Discourse Analysis of the #ChurchInAction*

Willard Enrique R. Macaraan, De La Salle University, Philippines

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In a predominantly Christian nation like the Philippines where the critique of the long-standing religious-normative ideals and traditions has expanded to the digital space, the church hierarchy and its faithful have not shied away from making their claims and defenses known through a subtle but effective digital strategy of hashtag activism. This paper seeks to explore how the Philippine Catholic church has defended itself from the proliferation of fake news, particularly during the height of the global pandemic, to discredit its social posture and agency with the utilization of the hashtag #ChurchInAction. The paper collects and gathers postings from social networking sites (SNSs) like Facebook, Twitter, and Instagram among others that incorporate the said hashtag and a cursory discourse analysis will be employed to draw out intentions, meanings, and ideologies. With this, it attempts to contribute to the scholarship of digital activism that is uniquely ecclesial and religious in nature and character.

Keywords: COVID-19, Church, Social Media

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Introduction

On March 11, 2020, the World Health Organization (WHO) declared the COVID-19 outbreak a pandemic. A day after, Philippine President Rodrigo Duterte announced that the entire Metro Manila (and later the entire Luzon and major areas in the country) shall be placed under enhanced community quarantine (ECQ) starting from March 15, 2020 to April 14, 2020. It was further extended until May 15, 2020, with the recommendation of the Inter-Agency Task Force on Emerging Infectious Diseases (IATF-EID) (Lopez, 2020). Since then, periodic and localized lockdowns have been implemented depending on the extent of contagion and hospital capacity. While the government at first hesitated to call it a "lockdown" for fear of creating panic among its people, it was later confirmed as equivalent to a total lockdown with strict restrictions against non-essential travel (Esguerra, 2020). Because of this, most of the business establishments and workplaces have to close or reduce their operations. In a report by the National Economic Development Authority (NEDA) last March 19, 2020, it projected that these lockdown measures could cause a significant amount of losses to the country's real GDP growth with people from vulnerable sectors of society as the most affected (NEDA, 2020). This was later confirmed in a published survey conducted by the Asian Development Bank (ADB) last July 2020 reporting that due to the closure or reduced operation of most businesses, many workers were either laid off from their jobs or granted leaves, or had hours and salaries reduced (ADB, 2020). Aside from a huge number of Filipino workers losing their jobs, there were also those business owners of micro, small, and medium enterprises (MSMEs) who had lost their source of income because they had to close their stores and shops and eventually run low in cash and equity to sustain operations (Pabalan & Macaraan, 2021).

To soften the blow of such lockdowns, the government responded with the implementation of the emergency subsidy program (ESP) as mandated under the Republic Act (R.A.) No. 11469 or the "Bayanihan to Heal as One Act". Under this program, the government would assist families qualified as "low-income households" amounting to Php5000 - 8000 (US\$98-157) for April and May 2020. Despite the hefty sum of money that the government had allocated, "it took months for the aid to be distributed" due to some concerns and issues on logistics and security among others (Abad, 2021). There were logistical challenges with access to remote villages in some provinces and the validation of lists of 18 million poor families as beneficiaries. There were also reports of armed assault against security officers distributing cash aids that resulted in the deaths of government front liners and village residents. As lockdowns intensified during this time, people were getting hungrier and agitated. On the ground, some people were more heavily hit than others and there was a sense of urgency in striking a balance between saving people's lives by imposing strict measures or sustaining their livelihood by easing restrictions.

It was obvious that the government could not do it alone and sole dependence on the government's fiscal stimulus programs and cash transfer incentives could have a significant blow to the country's economy moving forward. The private sector and NGOs had initiated their own donations and volunteerism projects donating medical supplies and personal protective equipment (PPEs) to health workers and hospitals as well as pledging to provide financial aid to their affected employees. Some restaurants and food establishments delivered ready-to-eat meals to health workers, police, and soldiers at checkpoints. Some of the big businesses had offered their facilities as quarantine areas for COVID-19 patients. There were manufacturing establishments that provided temporary shelters to some of their employees who lived far from their factories and shuttle services to others. Some companies had donated food packs

and essential hygiene kits to remote villages and communities. Major utility companies have also extended credit to their customers to ease their concerns about payments of bills. Free temporary lodging was also provided by some motel and hotel chains to medical front-liners. Insurance companies have expanded health coverage to their clients as well as free coverage to health workers. Airline industries had chartered some cargo flights to support emergency response initiatives. Some companies donated ambulances, medical equipment, and disinfecting apparatus to both government and private hospitals.

Where Is the Church?: The #ChurchInAction

Amid this generous and engaged involvement of the business and private sector, the onset of ECQ saw an emerging conversation in social media, particularly on *Facebook*. Some people had begun to question the church's participation or its lack thereof, specifically the Catholic religious institution. Merely three days into ECQ, on March 18, 2020, Vivian Velez, director-general of the Film Academy of the Philippines, posted on her *Facebook* account, "*Simbahang katoliko... ano na? paramdam naman po kayo sa pagtulong sa crisis*" (Catholic church... what now? make your presence felt to provide help during this crisis). This post has since been shared 1,400 times. A day after on March 19, 2020, Roberto Tiglao, a columnist for *The Manila Times*, posted on his *Twitter* account a more direct accusation against the church,

WHERE IS THE CHURCH? [sic] What are the CBCP [Catholic Bishops' Conference of the Philippines] Philippines, the Jesuits, Dominicans etc doing to help the country fight this virus and provide the poor with the food they need. Can't the Archbishop of Manila sell some of his P20 billion shares in BPI [Bank of the Philippine Islands] to fund the war vs Covid?

Tiglao's post was retweeted 356 times. Six days later on March 25, 2020, Tiglao detailed his criticism in a column entitled, "Where is the Church?" He accused the Catholic church of its inactivity and absence in the height of peoples' starvation and hunger during ECQ, "Where are they [church hierarchy] now when tens of thousands of human lives are being snuffed out by a disease they are not doing anything to fight?" (Tiglao, 2020). He argued that the ecclesial institution must be more proactive than ever before and must avoid resorting to the usual donation drives where the institution merely acts as a conduit or channel of aid from its benefactors and sponsors. The church, he opined, must use its vast resources and huge financial wealth to provide urgent assistance to affected people during this crisis.

While the Philippines is a predominantly Catholic nation with about 81% of its population identified with Roman Catholicism and the peoples' lifeworld deeply imbued with Catholic cosmologies and expressions (Macaraan, 2019), Canceran (2016) argues that secularism has weakened the authority of the church hierarchy among its faithful and that "religion is no longer controlled by organized religion but has been democratized through the personal agency". In the days after Tiglao's controversial column, *Facebook* had become the venue for people to express their thoughts and sentiments as they engaged in this emerging issue of the church's (non-)involvement during the ECQ. The digital space has provided an opportunity for people to express their opinions or stances on matters of social events and issues (Barton and Lee 2013). While the issue had been divisive and the weeks that passed saw strong partisanship among many Filipinos on social media, a collective action to challenge the anti-church sentiments had started to emerge on *Facebook* through the increased frequency of using the hashtag #ChurchInAction.

The use of a # symbol followed by a word or phrase in many social networking sites (SNSs) like *Facebook*, *Twitter*, and *Instagram* among others is a common practice nowadays and is usually intended as a metadata tag to facilitate classification and indexing purposes (Marlow et al. 2006). Hash-tagging becomes a hyperlink so that the post/s can be saved in a certain depository and any reader who clicks that link (hashtag) can have access to any other posts that feature the same tag (Scott, 2015). A text or image therefore that is posted in any SNSs with an accompanying hashtag has considerable capacity for connectivity and mobilization. No wonder, many of today's movements and collective efforts have significantly been aided by digital media and its use of hashtags. The "Occupy" movement around the world, the "unibrennt" movement in Vienna and the "Umbrella" movement in Hongkong among others utilized hashtags for people to follow conversations and updates which was a powerful means to building what Anderson (1983, 2006) refers to as "imagined communities" where people "will never know most of their fellow-members, meet them, or even hear of them, yet in the minds of each lives the image of their communion" (6). In hashtag activism, there is an achievement of what Stewart & Schultze (2019) refer to as "affective attunement" where beyond the ability to understand the world of the other persons, there is also the matching of the other's emotional state with affective expressions resulting to a level of intersubjectivity of shared emotions. For Zappavigna (2015), the connective power of hash-tagging gives rise to "ambient affiliation" where a bond is formed based mainly on topics of interest.

In contrast with these movements that resulted in mass protest and collective mobilization, the #ChurchInAction is more oriented towards establishing a connective action rather than a collective action. Stewart & Schultze (2019) attribute connective action to online-based protests that do not "involve the active engagement of protestors' physical bodies" (2). As the pandemic restricts mass gatherings, the most people could do at the height of this hashtag activism was to post and share images, photos, status, and updates of the prosocial activities and initiatives performed by church leaders and institutions during the ECQ in response to the anti-church narratives perpetrated by some groups in society. Aside from clicking the like button and other emoticons of affirmation on *Facebook*, these people also posted comments of support and encouragement for the efforts initiated by church institutions and groups.

The Faith-Based Catholic Groups: Analysis of Usage of #ChurchInAction

This paper explores the nuances of the #ChurchInAction as a form of religious activism on digital platforms by gathering and examining *Facebook* status posts of three (3) identified faith-based Catholic groups that have used the said hashtag in many of their posts specifically from March to April 2020 - the height of the ECQ lockdown. These groups are the Caritas Manila (CM), Tugon ng Pastol (TP), and Saint Anthony Shrine - Sampaloc Manila (SAS).

While the main beneficiaries of these organizations differ, the main source of funds as well as the nature of assistance provided are similar. Among the three however, it is only the Caritas Manila that extends its coverage of assistance to various parts of the country whereas both St. Anthony Shrine and Tugon ng Pastol are limited to within their vicinity and territory since they do not have any local chapters and they are not national organizations, unlike the Caritas Manila which is national in scope and has local and regional chapters in many parts of the country (see Table 1).

	Caritas Manila	St. Anthony Shrine	Tugon ng Pastol
Main Beneficiary	Mostly jeepney drivers	Mostly homeless, students, and medical frontliners	Mostly kids and elderly
Assistance provided	Mostly food and in-kind donations	goods and services (free haircut)	Meals and food packages
Source of funds	Mainly sourced out from donations	Mainly sourced out from donations	Mainly sourced out from donations
Extent of coverage	Nationwide through regional and local chapters	Within parish territory	Vicinity near the parish

Table 1: Nature and extent of the actual assistance provided

In exploring the social media posts of the organizations, it is evident that a large percentage of such constitute photos that involve the recipients or donees and the donated goods and food packs. This is expected as these organizations believe that as this assistance is made possible only because of the donations by people, they owe the donors at least proof that their generosity has indeed benefited the target vulnerable sectors of society (see Table 2).

Category	Caritas Manila	St. Anthony Shrine	Tugon ng Pastol	Number	Percent
Selfies/Groupies	5	5	2	12	15%
Recipients/Donees	25	5	5	35	43.75%
Donations/Food packs/Services	12	3	6	21	26.25%
Posters/Leaflets	5	0	0	5	6.25%
Text-image/Memes	2	0	0	2	2.5%
Miscellaneous	1	2	2	5	6.25%
Total postings	50	15	15	80	100%

Table 2: Types of images accompanied by #ChurchInAction

In #ChurchInAction, online activism facilitates mass protests without any formal structure. For Greijdanus et al (2020), it is an entirely new form of connective action characterized by bottom-up mobilization that occurs when calls to action cascade through interconnected personal networks. The informal structure that online activism creates is characterized by more individualized and fluid identifications than traditional social movements (Stewart & Schultze, 2019). Within the framework of connective action, geographically distributed Internet users participate in digital activism through self-motivation and personalized actions about contentious issues through mediated communication to facilitate public engagement (Wang & Zhou, 2021). In activism taking place on the Internet, connective action is driven mainly by self-motivated activists. Hence, one would expect a degree of decentralization as participants voluntarily take initiatives to generate content relevant to the collective goal and to keep the information flow going (Wang & Zhou, 2021).

	Caritas Manila	St. Anthony Shrine	Tugon ng Pastol
Connective Action	Highly evident	Moderately evident	Less evident
Affective Attunement	Strongly manifested	Moderately manifested	Less manifested

Table 3: E-movement (Internet-based)

Following the framework proposed by Sandoval-Almazan & Gil-Garcia (2014), there are four stages in the development of protests using social media technologies, namely, 1. triggering event, 2. media response, 3. viral organization, and 4. physical response. Each one of these stages is complementary and follows one another in an imperfect and not predictable cycle. For the first stage, the triggering event is no other than the posts of Velez and Tiglaio at the onset of pandemic lockdowns where both criticize the lack of active involvement in assisting the general public. Soon thereafter, the media response is overwhelming as people share and retweet the postings. In response to that, religious organizations begin posting their actions of assistance on social media using the #ChurchInAction. The last stage is the physical response of the people who not only donate cash and goods but also offer their own time and services to distribute aid to the needy. Indeed, "solidarity is accomplished when emotions (e.g., rage, awe, joy) that are experienced at the individual level are made collective" (Stewart & Schultze, 2019).

While many of these people who performed collective action do not know one another, what transpired was "imagine collectives" which is characterized by individuals who "will never know most of their fellow-members, meet them, or even hear of them, yet in the minds of each lives the image of their communion" (Anderson, 1983). Affective attunement represents not only the desire and ability to understand and respect another's inner world but also the matching of the other's emotional state with affective expressions to achieve a level of intersubjectivity where emotions are perceived as shared (Stern, 1985).

	Caritas Manila	St. Anthony Shrine	Tugon ng Pastol
Collective Action	Less evident	Highly evident	Moderately evident
Shared (embodied) experience	Less manifested	Strongly manifested	Moderately manifested

Table 4: Identity movement (Internet-enabled)

Conclusion

The pandemic has raised questions that may change moral views and compass. In response to the suffering caused by the pandemic, there are widespread calls for solidarity that encourage people to prioritize public health concerns over one's self-interest. The pandemic has accentuated issues of inequality in society, necessitating not only the government to perform its obligation to aid the people, particularly the vulnerable sectors but also the private and non-governmental groups to contribute to the issue of hunger, dearth of resources, and other pandemic-related sufferings. Religion for one has provided the meaning that people need to recover from a current crisis (Horstmann, 2011).

The success of #ChurchInAction is largely attributed to social media where participants formed themselves as one community of connected individuals. One's social identity is drawn from one's perceptions of in-group membership. People's ecstatic sharing of stories on social media alongside the #ChurchInAction helped in the promotion of shared emotions or feelings for the victims. This study has revealed that the #ChurchInAction has bonded people and served to convoke communities of feelings, without the participants interacting with one another.

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Contact email: willard.macaraan@dlsu.edu.ph

***Examining Community Development and Environmental Strategies in Yunlin County
With Biotope Area Factor (BAF)***

Yi-Pin Lin, National Yunlin University of Science and Technology, Taiwan
Jing-Shoung Hou, National Formosa University, Taiwan
Khoon Sean Yeoh, National Yunlin University of Science and Technology, Taiwan
Sung-Chin Chung, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Amidst the global drive towards achieving the Sustainable Development Goals (2030 SDGs) and the ambitious target of Net Zero Carbon Emissions by 2050, sustainability has taken center stage in societal development. This study, using Yunlin County as a focal point, delves into the impact of community planning and design on the quality of the ecological environment. Furthermore, it puts forth strategies aimed at elevating sustainability to higher levels. The research is spurred by the urgent need for environmental sustainability, with the objectives of mitigating the urban heat island effect, improving spatial energy efficiency, and fostering human-scale living spaces conducive to sustainable lifestyles. To achieve these goals, the study draws inspiration from the 1980s German concept of the Biotope Area Factor (BAF) and explores its potential application as a policy tool to reshape community planning and design paradigms. The primary objective of the research is to construct an assessment framework for the Biotope Area Factor (BAF) and propose an evaluation strategy for BAF values within communities. This framework is designed to quantitatively measure the sustainability of communities, thus promoting more robust and sustainable community development. The Biotope Area Factor serves as a tool for gauging environmental health, assigning an index to diverse land surface forms to unveil the ecological health status of a region.

Keywords: Community Planning, Biotope Area Factor, Sustainable Environment

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Introduction

As human civilization has evolved, living environments have gradually transitioned from villages and rural areas to urban life. However, the urban expansion following the Industrial Revolution, accompanied by excessive development, has led to the depletion of environmental resources. The pursuit of high-quality living has simultaneously triggered climate anomalies, including the urban heat island effect, the greenhouse effect, and rising sea levels. To prevent further environmental degradation, it has become clear that urban development must balance with environmental conservation. Hence, the concept of sustainable ecology has emerged, emphasizing the protection of the environment while meeting current needs. This includes promoting energy conservation, ecological urban planning, and renewable energy to achieve both economic development and environmental sustainability.

In Taiwan, under the policies of the "2030 Sustainable Development Goals (SDGs)" and the "2050 Net Zero Carbon Emissions," there is a growing awareness of sustainability driven by international trends. Integrating sustainability into daily life and implementing sustainable design is seen as a key focus for future development. The National Land Surveying and Mapping Center (Construction and Planning Agency) has continued the urban environment construction principles of the past twenty years, adhering to the principles of "simplicity and nature, usability, ease of maintenance, and manageability." They have persistently promoted the Community Planner Assistance Program to establish long-lasting environments, prioritizing natural spaces over concrete and considering natural ecology. Yunlin County's community planner program has been implemented for 15 years, involving community residents in the planning, design, and construction processes. This bottom-up approach enables autonomous environmental creation and improvement. Community planners are responsible for rethinking the relationship between people and the environment, creating locally distinctive green and beautified environments, and injecting sources of sustainability.

Urban ecological environments are increasingly receiving attention, and there is a growing focus on protecting undeveloped natural areas. In addition to passively preserving existing habitats, there is an active effort to create more ecological environments within cities. Planting trees and vegetation in urban areas or improving habitats in water bodies are the most direct ways to increase habitats. Thus, Berlin developed the "Biotope Area Factor" system to evaluate, preserve, and create urban habitats, protecting community ecosystems and biodiversity from being sacrificed due to urban development. This system, similar to other urban planning aids, is easier for scoring and statistics. The Biotope Area Factor can be applied to any form of land use habitat quality, such as residential, commercial, and public facilities, with a core focus on ecological environments. The BAF represents the ratio of "ecologically effective surface" to the total area in a given region, indicating that more permeable surfaces with plant cover are more suitable for habitats and are considered more "ecologically effective."

This study focuses on the environmental aspects of the Community Planner Assistance Program in Yunlin County, using the Biotope Area Factor (BAF), an environmental planning aid developed by the Berlin Urban Development Department in the 1980s, as a basis for evaluation. The spatial environmental characteristics of Yunlin County communities differ significantly from the urban environment of Berlin, with variations in climate, ecology, human environment, construction methods, and materials. The BAF indices were originally set by the Berlin local government based on their environmental characteristics. Applying

them directly to Yunlin County communities would be ineffective for local environmental assessment and would not provide suitable recommendations. Therefore, the objectives of this study are as follows:

1. To construct an ecological environmental assessment model for community planning and design in Yunlin County based on the Berlin Biotope Area Factor (BAF) through an inventory of the current status of Yunlin County's community planning and design.
2. To propose BAF recommendations applicable to Yunlin County community construction points and provide strategic guidelines to realize the vision of sustainable community development.

Method

This study primarily involves the collection and synthesis of relevant literature to explore current international research on ecological indicator evaluation tools, ecosystem assessment indicators, and their importance, along with the relationship to the Biotope Area Factor (BAF). Through a review of the literature, the research motivation, direction, and content were formulated, establishing the research process and methodology for this study. The study specifically consolidates and classifies the content related to the BAF evaluation system in Yunlin County's communities to establish the evaluation items under investigation.

Different land surface types are assigned different ecological effectiveness weights. In calculating the ecologically effective surface area, the area of each surface type is multiplied by its corresponding ecological effectiveness weight and summed to derive the total ecologically effective surface area. The Berlin government has incorporated BAF into urban landscape planning as an assessment standard for urban environmental planning. To meet the prescribed habitat standards, developers must comply with BAF value standards; otherwise, they cannot obtain building permits. For example, the minimum BAF index for new residential areas and public facilities is 0.6, and for commercial areas and schools, it is 0.3 (Senate Department for Urban Development and the Environment, 2023).

In 2011, the Yunlin County Landscape Master Plan Report used BAF as a theoretical basis, subdividing greening indicators into pavement, facade, roof, water bodies, and agricultural items according to visible landscapes in Taiwan. Compared to BAF, GSF, and GF, the Taiwan Association of Landscape Architecture included aquaculture, agricultural landscape, biological corridors, rainwater collection, composting, and green energy. In the same year, Jing-Shoung Hou (2011) established ecological weights for nine land use zones in Yunlin County: forest use at 1.0, farmland use at 0.8, water use at 0.7, recreational use at 0.5, other uses at 0.4, mining use at 0.3, transportation use at 0.3, public facilities at 0.2, and building use at 0.1, evaluating the current development status of the sites.










		
forest use 1.0	farmland use 0.8	water use 0.7
		
recreational use 0.5	other uses 0.4	mining use 0.3
		
transportation use 0.3	public facilities 0.2	building use 0.1

Table 1: Land Use Classification of BAF (Hou, Jing-Shoung, 2011)

The research relies on data from Yunlin County's Community Planner Assistance Program and field surveys as the main sources of interpretation. On-site visits and inspections were conducted to assess the current conditions of outdoor spaces, building vertical facades, and roofing materials, gaining an understanding of the existing surface types at the sites.

The research scope focuses on the environment within the framework of the Community Planner Assistance Program in Yunlin County. Considering Yunlin County's vision centers around Douliu, Dounan, and Huwei, leveraging their administrative centers and convenient transportation to develop a cohesive industrial system, the study found through environmental surveys and BAF calculations that areas with BAF indices below 0.5 are mostly within urban planning zones or urban living circles such as Douliu, Dounan, and Huwei. Therefore, the research targets communities in these areas that participated in the Community Planner Assistance Program from 2020 to 2022.

The objective is to increase green areas through bottom-up community building efforts, serving as "stepping stones" for species migration. This approach ensures that community building not only meets local needs and recreational functions but also provides spatial buffering functions to form an ecological network system. This system enhances the survival probability of migrating species and promotes biodiversity.

Result

Calculation of the Biotope Area Factor (BAF)

1. Gouba Community

The land use categories for Gouba Community's construction sites are all type B construction land. According to the standard index for building use land zoning, which is 0.1, all sites are above the standard. However, according to Berlin's regulation that residential areas should have a BAF of 0.6, this study found that Sites B and C have not reached the target value. Gouba Community's development primarily aims to provide recreational areas for residents. The BAF calculation shows that the most common surface type is vegetative cover connected to underground soil, mostly short grass lawns, accounting for 58.01% of the total area. This is followed by impervious surfaces and semi-permeable surfaces, which account for 18.75% and 12.47%, respectively. Site A, with extensive short grass lawns and permeable gravel surfaces, has a high overall BAF value of 0.8, indicating significant ecological benefits. Site B, despite having a wooden platform for residents, also has planned green spaces, resulting in a BAF of 0.56. In contrast, Site C has a high proportion of impervious surfaces, resulting in a BAF of only 0.17, far below the target value of 0.3, indicating insufficient ecological surface planning.

Types of surfaces	factor	Site A		Site B		Site C	
		Area m ²	factor x area	Area m ²	factor x area	Area m ²	factor x area
Sealed surfaces	0	0.00	0.00	0.00	0.00	72.27	0.00
Partially sealed surfaces	0.1	5.85	0.59	32.08	3.21	0.00	0.00
Semi-open surfaces	0.2	43.40	8.68	4.67	0.93	0.00	0.00
Surfaces with vegetation, unconnected to the soil below, small substrate thickness	0.5	0.00	0.00	0.00	0.00	3.56	1.78
Surfaces with vegetation, connected to the soil below	1	169.58	169.58	37.91	37.91	16.06	16.06
ecologically-effective surface areas(factor x area)		178.85		42.05		17.84	
Total land area		224.90		74.66		103.38	
BAF		0.80		0.56		0.17	

Table 2: BAF of Gouba Community



Figure 1: Current situation of Gouba Community-Site A



Figure 2: Current situation of Gouba Community-Site B



Figure 3: Current situation of Gouba Community-Site C



2. Beixi Community

Beixi Community is primarily used for recreation and experiential activities, with land use categories of type A construction land and agricultural land. According to Berlin's regulation, residential areas should have a BAF of 0.6, while there are no clear standards for agricultural land. The land use zoning standard index is 0.1 for construction land and 0.8 for agricultural land. Field investigations revealed that Sites B and C are below the standard value. The BAF calculation shows that the most common surface type is vegetative cover connected to underground soil, accounting for about 54.49%, followed by semi-permeable surfaces, which account for 41.67%. Despite having some impervious surfaces, Site A has planned green spaces, achieving a BAF of 0.56. Site B has a BAF of only 0.46, despite having community gardens, due to the proportion of buildings reducing its BAF value. Site C, with extensive short grass lawns and a pond, has a BAF slightly below the standard value of 0.8 but still achieves 0.76, indicating significant ecological benefits.

Types of surfaces	factor	Site A		Site B		Site C	
		Area m ²	factor x area	Area m ²	factor x area	Area m ²	factor x area
Sealed surfaces	0	12.57	0.00	0.00	0.00	0.00	0.00
Partially sealed surfaces	0.1	149.90	14.99	499.87	49.99	56.64	5.66
Semi-open surfaces	0.2	0.00	0.00	21.00	4.20	0.00	0.00
Surfaces with vegetation, connected to the soil below	1	220.12	220.12	508.74	508.74	194.86	194.86
Water surface	0.5	0.00	0.00	0.00	0.00	31.50	15.75
ecologically-effective surface areas(factor x area)		235.11		562.92		216.27	
Total land area		419.38		1,222.61		283.00	
BAF		0.56		0.46		0.76	

Table 3: BAF of Beixi Community



Figure 4: Current situation of Beixi Community-Site A



Figure 5: Current situation of Beixi Community-Site B



Figure 6: Current situation of Beixi Community-Site C

3. Linzi Community

Linzi Community uses bricks, a local industry feature, for its primary material, with land use categories of type B construction land and transportation land. According to Berlin's regulation, residential areas should have a BAF of 0.6, while there are no clear standards for transportation land. The land use zoning standard index is 0.1 for construction land and 0.3 for transportation land. Field investigations and BAF calculations revealed that the most common surface type in Linzi Community is impervious surfaces, accounting for 60%, followed by vegetative cover connected to underground soil, mostly short grass lawns. Despite having short grass lawns and gravel surfaces, Site A uses cement to seal the brick surfaces, resulting in a BAF of 0.39. Site B, also with extensive cement-sealed brick surfaces but large areas of short grass lawns, has a BAF of 0.46. Site C, located under a highway overpass with extensive cement surfaces and red brick paving, has a BAF of only 0.14, indicating significant room for improvement in ecological surface planning.

Types of surfaces	factor	Site A		Site B		Site C	
		Area m ²	factor x area	Area m ²	factor x area	Area m ²	factor x area
Sealed surfaces	0	12.57	0.00	0.00	0.00	0.00	0.00
Partially sealed surfaces	0.1	149.90	14.99	499.87	49.99	56.64	5.66
Semi-open surfaces	0.2	0.00	0.00	21.00	4.20	0.00	0.00
Surfaces with vegetation, connected to the soil below	1	220.12	220.12	508.74	508.74	194.86	194.86
Water surface	0.5	0.00	0.00	0.00	0.00	31.50	15.75
ecologically-effective surface areas(factor x area)		235.11		562.92		216.27	
Total land area		419.38		1,222.61		283.00	
BAF		0.56		0.46		0.76	

Table 4: BAF of Linzi Community



Figure 7: Current situation of Linzi Community-Site A



Figure 8: Current situation of Linzi Community-Site B



Figure 9: Current situation of Linzi Community-Site C

Improvement Plans for Each Site

1. Gouba Community

Site A in Gouba Community already has a BAF of 0.8, indicating high ecological benefits, so the focus is on improving Sites B and C. To increase greenery and ecological benefits, the semi-permeable surfaces in Site B can be converted to lawns, increasing green space and ecological benefits. Reducing the width of some impervious walkways to 0.8 meters can also decrease impervious surfaces and increase lawn areas, while meeting pedestrian design principles. Additionally, planning vertical greening along the sides can enhance aesthetics and reduce environmental temperature, increasing ecologically effective areas within the limited site area. Site C, being a religious venue, requires retaining some paved areas for activities. To improve ecological benefits, the impervious surfaces can be converted to semi-permeable surfaces, increasing permeability and reducing rainwater runoff. Additionally, converting surrounding cement drainage ditches to semi-permeable surfaces can provide space for plant growth and wildlife. Expanding the green space in the rear rest area can also enhance overall ecological benefits and user experience.

Types of surfaces	factor	Site B		Site C	
		Current area	Improved area	Current area	Improved area
Sealed surfaces	0	0.00	0.00	72.27	11.49
Partially sealed surfaces	0.1	32.08	30.08	0.00	44.83
Semi-open surfaces	0.2	4.67	0.00	0.00	9.84
Surfaces with vegetation, unconnected to the soil below, small substrate thickness	0.5	0.00	0.00	3.56	3.56
Surfaces with vegetation, connected to the soil below	1	37.91	44.58	16.06	33.66
Vertical greenery with connection to the ground	0.5	0.00	26.04	0.00	0.00
ecologically-effective		42.05	60.61	17.84	41.89
surface areas(factor x area)		74.66	74.66	103.38	103.38
Total land area		0.56	0.81	0.17	0.41

Table 5: Comparison of BAF Values Before & After Gouba Community Site Improvement Plan



Figure 10: Comparison of BAF Values Before & After Gouba Community-Site B



Figure 11: Comparison of BAF Values Before & After Gouba Community-Site C

2. Beixi Community

While the BAF of Site A in Beixi Community meets the standard, there is still room for improvement. Reducing the width of some impervious walkways to 1 meter can decrease impervious surfaces and increase lawn areas, while meeting pedestrian design principles. Converting impervious surfaces to lawns can increase the overall BAF to 0.65. For Site B, which has three building structures, rooftop greening can be used to increase green space. Additionally, replacing extensive red brick pavements with green spaces and using more permeable paving types in garden paths can enhance permeability, reduce rainwater runoff, and improve the ecological environment. Since the site is agricultural land and should have a

higher BAF, planning vertical greening along the sides can increase ecological areas and reduce temperature. For Site C, converting some impervious surfaces to semi-permeable surfaces can increase permeability and reduce rainwater runoff. Replacing other impervious surfaces, except under flower racks, with lawns or vegetation can also increase ecological benefits.

Types of surfaces	factor	Site A		Site B		Site C	
		Current area	Improved area	Current area	Improved area	Current area	Improved area
Sealed surfaces	0	12.57	0.00	193.00	0.00	0.00	0.00
Partially sealed surfaces	0.1	149.90	121.80	499.87	255.54	56.64	0.00
Semi-open surfaces	0.2	0.00	0.00	21.00	69.29	0.00	36.48
Surfaces with vegetation, connected to the soil below	1	220.12	260.78	508.74	704.78	194.86	215.02
Water surface	0.5	0.00	0.00	0.00	0.00	31.50	31.50
Vertical greenery with connection to the ground	0.5	0.00	0.00	0.00	270.60	0.00	0.00
Extensive roof greening	0.5	0.00	0.00	0.00	193.00	0.00	0.00
ecologically-effective		235.11	272.96	562.92	975.99	216.27	238.07
surface areas(factor x area)		419.38	419.38	1,222.61	1,222.61	283.00	283.00
Total land area		0.56	0.65	0.46	0.80	0.76	0.84

Table 6: Comparison of BAF Values Before & After Beixi Community Site Improvement Plan



Figure 12: Comparison of BAF Values Before & After Beixi Community-Site A



Figure 13: Comparison of BAF Values Before & After Beixi Community-Site B



Figure 14: Comparison of BAF Values Before & After Bexi Community-Site C

3. Linzi Community

All three sites in Linzi Community have BAF values below the standard, indicating significant room for improvement. The primary recommendation is to convert impervious surfaces to semi-permeable surfaces to increase permeability. For Site A, converting the non-pedestrian paving area in the upper right corner to green space and installing vertical green walls can enhance ecological benefits. Site C, restricted by its location under a highway overpass, can still use green techniques at entrances and along walkways to create biological corridors. Reducing walkway widths to increase adjacent green areas can connect gaps between roads, creating stepping stones and ecological corridors that support species migration and biodiversity.

Types of surfaces	factor	Site A		Site B		Site C	
		Current area	Improved area	Current area	Improved area	Current area	Improved area
Sealed surfaces	0	43.60	40.38	103.64	0.00	429.46	216.12
Partially sealed surfaces	0.1	0.00	28.21	0.00	103.64	0.00	128.35
Semi-open surfaces	0.2	18.02	16.25	6.88	6.88	8.64	5.80
Surfaces with vegetation, unconnected to the soil below, small substrate thickness	0.5	0.00	0.00	0.00	0.00	42.33	59.06
Surfaces with vegetation, unconnected to the soil below, medium substrate thickness	0.6	0.00	0.00	0.00	0.00	7.62	7.62
Surfaces with vegetation, connected to the soil below	1	60.13	77.29	111.62	111.62	46.69	117.78
Water surface	0.5	2.33	2.33	0.00	0.00	0.00	0.00
Vertical greenery with connection to the ground	0.5	0.00	31.20	0.00	22.40	0.00	0.00
ecologically-effective		64.90	100.12	113.00	134.56	74.15	165.16
surface areas (factor x area)		164.46	164.46	222.14	222.14	534.72	534.72
Total land area		0.39	0.61	0.51	0.61	0.14	0.31

Table 7: Comparison of BAF Values Before & After Linzi Community Site Improvement Plan



Figure 15: Comparison of BAF Values Before & After Linzi Community-Site A



Figure 16: Comparison of BAF Values Before & After Linzi Community-Site B



Figure 17: Comparison of BAF Values Before & After Linzi Community-Site C

Conclusion

Improving Permeability by Reducing Sealed Surfaces

The analysis of this study reveals that sealed surfaces and semi-permeable surfaces respectively account for 29.11% and 25.16% of the total area across all community sites. This indicates that communities often prioritize sealed surfaces during site development, as seen in Site C of Gouba Community and Sites A, B, and C of Linzi Community, where large areas of sealed surfaces are used. Impervious surfaces prevent rainwater infiltration, leading to decreased groundwater levels, water shortages, land subsidence, increased surface runoff, and additional burdens on drainage systems. Therefore, reducing sealed surfaces and enhancing the permeability of sites should be considered in the development process.

Utilizing Vertical Spaces to Overcome Green Area Limitations

To address the constraints of community sites and uncontrollable factors, utilizing vertical spaces such as walls, roofs, and facades can increase effective ecological areas. This approach not only significantly enhances the quality of the ecological environment by supplementing the required green spaces and coverage rates but also increases the stability of

the ecological environment. According to the improvement suggestions from this study, incorporating vertical greening in Site B of Gouba Community, Site B of Beixi Community, and Sites A and B of Linzi Community can effectively enhance the limited ecological effective area and improve the Biotope Area Factor (BAF).

Effective Biotope Area Factor and Evaluation Standards

Evaluating the Biotope Area Factor (BAF) based on different standards and land use categories yields varying results. Establishing suitable standards for measuring the effective BAF of communities is crucial and necessary. Setting specific targets can effectively enhance the ecological quality of communities and promote sustainable development.

1. This study evaluated each site according to Berlin's standards for assessing the BAF of land use categories. The results show that five communities did not meet the standards. Additionally, three communities could not be assessed using Berlin's standards due to the lack of specific targets for agricultural and transportation land. Only one community site met the target.
2. According to the land use zoning standards, six communities achieved the targets, as the BAF for building land use zoning standards is only 0.1. The results show that all sites exceeded this value.
3. The land use zoning standards specify targets of 0.8 for agricultural land and 0.3 for transportation land. Site B and Site C of Beixi Community and Site C of Linzi Community did not meet these targets.

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Contact email: ahseanz22@gmail.com

Comparative Analysis of Paranoia in Shakespeare's Macbeth and Miyazaki's Chihiro

Sanjukta Chakraborty, Amity University, India
Varun Gulati, University of Delhi, India
Deepali Sharma, Amity University, India

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This article examines paranoia in Miyazaki's Chihiro from Spirited Away and in Shakespeare's Macbeth through the lens of Foucault's Psychoanalytic theories as described by Kelly (2020). Foucault's exploration of paranoia and fear's dominion as a function of identity provides a nuanced lens through which to dissect the trajectories of Macbeth and Chihiro in the realms of the respective texts. The interplay between paranoia, identity, and agency unfolds as a salient thematic thread that underscores the dichotomous ways in which fear can shape destinies. While Macbeth's tragic spiral illustrates the perilous consequences of unchecked paranoia, Chihiro's liberation through confrontation demonstrates the potential for fear to serve as a transformative force, fostering personal growth and emancipation from its stifling grasp. By unpacking the nuanced dynamics of anxiety in the lives of these characters, this study contributes to the scholarship on character development, psychology, and literary analysis. The article underscores the significance of Foucault's psychoanalytic perspective in elucidating the transformative potential and destructive consequences of paranoia in narrative fiction.

Keywords: Shakespeare, Macbeth, Miyazaki, Spirited Away, Psychoanalysis

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Introduction

Shakespeare's play *Macbeth* is widely regarded as a literary masterpiece, skilfully exploring a broad spectrum of human motivations and emotions. Through characters like Lady Macbeth, who embodies greed, and Macbeth, who exemplifies pride and ambition, Shakespeare illustrates the dangers of extreme emotions. Within this complex narrative, *Macbeth* also serves as a profound exploration of paranoia. Similarly, Hayao Miyazaki's 2001 film *Spirited Away* masterfully blends realism and fantasy to depict a young girl named Chihiro's adventures in a Japanese bathhouse for supernatural beings. Separated from her parents and compelled to work to free her family, Chihiro is initially terrified of the strange creatures around her. This fear and paranoia not only captivates her but also immerses the audience in the fantastical setting.

Both *Macbeth* and *Spirited Away* explore paranoia as an overwhelming emotion that can stifle freedom and growth. Macbeth's hesitation to murder King Duncan, Lady Macbeth's ensuing trauma, and Chihiro's fear of being alone all illustrate how paranoia can imprison individuals within their circumstances. However, while Macbeth and Lady Macbeth allow their anxieties to consume them, leading to their ultimate downfall, Chihiro confronts her fears, enabling her to escape her predicament. On the other hand, the Japanese title of Miyazaki's film, *Sen to Chihiro no Kamikakushi*, which roughly translates to 'Sen and Chihiro's Spiriting Away', implies divine retribution and highlights the fear and awe Chihiro feels towards these supernatural forces. This reflects a young girl's natural anxiety in the face of angered gods.

Paranoia manifests in various forms across these works. Macbeth fears the consequences of his actions and the prophecy of his demise. Lady Macbeth descends into paranoia and psychosis after having a hand in the horrific deed. Chihiro is afraid of moving to a new city and the bathhouse's powerful creatures. However, here, we can see that the younger character contends with her fears differently from her Shakespearean counterparts. While Macbeth resorts to eliminating potential threats, and Lady Macbeth ultimately takes her life, in stark contrast, Chihiro faces her anxieties, grows stronger, and triumphs over them.

By confronting her fears and paranoias, Chihiro diminishes its hold on her, emerging from the supernatural bathhouse as a more mature individual. The choices made by Shakespeare's characters and Miyazaki's young protagonist highlight the extremes of human nature and our responses to paranoia, ambition, and fear.

Methodology

Shakespeare's renowned work *Macbeth* stands as a quintessential masterpiece, resonating widely among literary enthusiasts. The characters within this play unveil profound psychological intricacies, unparalleled in literary history. This complexity has spurred a substantial body of scholarly discourse, particularly of a psychoanalytical nature, focusing on distinct characters, with Macbeth and Lady Macbeth taking center stage (Khikani, 2023; Elenany, 2015; Churchill, 2015; Blum, 1986). Khikani (2023) suggests that human behavior, akin to animal instinct, often exhibits inherent aggressiveness driven by primal instincts. Conversely, Elenany (2015) emphasizes probing the motivations, goals, and aspirations that evolve from the early stages of human psyche development, making a psychoanalytical lens imperative for unveiling the characters' unconscious facets.

The diversity of human responses to adversity remains a central theme. Churchill (2015) posits, however, that Thane and Lady Macbeth's experiences of paranoia, fear and repentance lean toward a state of annihilation rather than transformation. In contrast, Blum (1986) underscores the indispensability of psychoanalytic insights in excavating both primitive and sophisticated dimensions of the human psyche. *Macbeth* entwines a tapestry of human intricacies, inviting meticulous psychoanalytical scrutiny to fathom the depths of character motivations and responses to the challenges they confront. The scholarly discourse underscored by previous scholars accentuates the value of psychoanalysis in deciphering the intricate facets of human nature portrayed within the play.

Similarly, Miyazaki's *Spirited Away* holds a unique position in Japanese film, boasting an extensive discourse attached to its name. Each character within the story brings a grounded reality, helping the audience identify with them, even if they are supernatural creatures from a different culture. This has led to numerous works on the psychoanalytical aspect of Miyazaki's characters. Through her psychoanalytical study, Athira (2023) asserts that although Chihiro begins the story as a young, immature girl, the struggles she faces build her character, transforming her into a confident and independent young adult. Sun (2020) supports this, adding that Chihiro's parents failed to provide the support she needed, neglecting her loneliness after leaving her friends behind. This is also reflected in Yubaba's controlling and dominating parenting style (Papastavros, 2021). Since there is a clear question of identity and the development of ideologies in *Spirited Away*, it becomes imperative to use a psychoanalytical approach to comprehend the myriad of emotions driving every action and decision of the characters in both the stories (Swale, 2015; Brockmann, 2008).

Given these considerations, it becomes a compelling pursuit and an intellectual imperative to discern the intricate nuances of paranoia shaping the protagonists' experiences in both the literary and cinematic works. To achieve a profound comprehension of these fear-induced attributes, a more exhaustive exploration is warranted, particularly through an analytical lens inspired by Kelly's (2020) interpretation of Foucault's psychoanalytical framework. This framework holds the potential to unveil a deeper understanding of paranoia's multifaceted impacts, encompassing both its detrimental and transformative dimensions.

The critical psychoanalytic approach, as elucidated by Foucault within Kelly's (2020) discourse, serves as a potent tool for dissecting the distinct attributes and consequential decisions enacted by the characters across both the theatrical and cinematic versions. Employing this approach allows for an incisive exploration of the underlying traits and intricate personalities that drive the characters' pivotal actions. Indeed, this method elucidates the 'psychological reality' (Hossain, 2017) of fictional characters, enabling a comprehensive deconstruction of their motivations and aspirations.

While Foucault's stance on Freudian Psychoanalytical Criticism may be ambivalent, he contends that integrating 'existential phenomenology' can elucidate 'certain dimensions of the human experience' (Kelly, 2020). This approach theorizes that characters within a narrative possess latent unconscious states motivating their overt actions (Sollod, 2008). Consequently, a scholarly examination of these characters through Foucault's psychoanalysis can unravel the profound interplay between paranoia, ambition, and fear.

Thus, a meticulous critical inquiry into the protagonists' motivations, decisions, and psychological underpinnings within both the theatrical play and cinematic masterpiece can

elucidate not only the destructive ramifications of paranoia but also the indispensable role of courage in navigating dire circumstances. This article offers an opportunity to glean insights into the human psyche, discerning the interplay between internal fears and outward actions, ultimately enriching our comprehension of human behavior complexities and the tenacity required to confront and overcome adversity.

Discussion

Shakespeare's *Macbeth* is one of his most widely read works, showcasing characters with unprecedented psychological complexity. Consequently, several scholars have conducted psychoanalytical examinations of the play, focusing particularly on Macbeth and Lady Macbeth (Khikani, 2023; Elenany, 2015; Churchill, 2015; Blum, 1986). Khikani (2023) suggests that humans, driven by instinct and primal drives, exhibit aggressive tendencies that can escalate. Conversely, Elenany (2015) contends that understanding the motivations, goals, and aspirations developed from a young age is crucial, necessitating a psychoanalytical approach to study the unconscious mind of the characters. Churchill (2015) argues that the fears, paranoia and repentance experienced by Macbeth and Lady Macbeth became annihilatory rather than transformative. Blum (1986) emphasizes the importance of psychoanalytic insights in uncovering both the primitive and advanced aspects of the human psyche. Together, these analyses underscore the value of psychoanalysis in exploring the depths of Shakespeare's characters.

On the other hand, Hayao Miyazaki's *Spirited Away* holds a distinguished place within the realm of Japanese cinematography, characterized by its intricate narrative and richly layered themes. This cinematic masterpiece is renowned not only for its visual splendor but also for its deep, multifaceted discourse that resonates with viewers across cultural boundaries. Each character in this animated feature contributes to a profound sense of realism and relatability, despite their existence within a fantastical and supernatural context. Miyazaki's exceptional storytelling prowess allows audiences to form a deep connection with these characters, who, while rooted in a distinctly Japanese cultural milieu, evoke universal emotions and experiences.

The dynamic interplay of these elements has sparked extensive scholarly interest, particularly in the psychoanalytical dimensions of the characters and their development. Miyazaki's ability to weave complex personas into the narrative fabric of *Spirited Away* invites a wide range of interpretations and analyses. Scholars have delved into the psychological underpinnings of the characters, exploring themes such as identity, transformation, and the interplay between fear and paranoia.

For instance, Chihiro, the young protagonist, embarks on a journey of self-discovery that is fraught with anxiety and uncertainty. Her initial trepidation gradually transforms into resilience and empowerment, mirroring the psychoanalytic concept of individuation. The various supernatural entities she encounters, each with their own distinct personalities and symbolic significance, further enrich the narrative tapestry, providing fertile ground for psychoanalytical exploration. The film's depiction of the bathhouse as a microcosm of society, complete with its own hierarchies and power dynamics, offers insights into human behavior and social structures. The interactions between characters, such as Chihiro's evolving relationship with the enigmatic Haku and the complex figure of Yubaba, the bathhouse's formidable proprietor, highlight the intricate web of motivations, desires, and fears that drive human actions. This rich, multidimensional approach to character and

narrative has positioned *Spirited Away* as a seminal work in the field of animation studies. It stands as a testament to Miyazaki's genius, reflecting his deep understanding of human psychology and his ability to infuse his storytelling with layers of meaning that resonate with audiences and scholars alike. The scholarly explorations focused on the psychoanalytical aspects of Miyazaki's characters continue to expand, contributing to a greater appreciation of the intricate artistry and profound themes embedded within this animated classic.

In an insightful psychoanalytical exploration, Athira (2023) delves into the transformative arc of Chihiro's character in *Spirited Away*. Initially depicted as a young and somewhat immature girl, Chihiro's journey through a series of arduous trials serves as an alchemical crucible, ultimately forging her into a poised and self-reliant young adult. This metamorphosis highlights the profound impact of adversity in shaping one's character and fortitude. Athira's (2023) analysis underscores how the challenges Chihiro faces are not merely obstacles but essential components of her developmental journey, contributing to her emotional and psychological growth.

This perspective is echoed by Sun (2020), who discerns a poignant undercurrent within Chihiro's familial dynamics. Sun (2020) contends that the root of Chihiro's initial immaturity lies in her parents' inadvertent failure to provide the requisite emotional support during her time of need. Rather than empathetically acknowledging her sense of isolation upon departing from her long-time friends, Chihiro's parents manifest an unintended neglect, setting the stage for Chihiro's solitary odyssey. This lack of parental support is a crucial factor in Chihiro's initial state of helplessness and confusion as she navigates the unfamiliar and often daunting world of the supernatural bathhouse.

Further, this mirroring of Chihiro's parental experiences is extrapolated through the prism of Yubaba's authoritarian parenting style. Yubaba, the bathhouse's domineering proprietor, exercises a controlling influence over Chihiro and the other workers, reflecting a style of parenting that is characterized by rigid control and a lack of nurturing. Papastavros (2021) offers insights into this dynamic, noting that Yubaba's oppressive control serves as a foil to Chihiro's growth, highlighting the contrast between oppressive authority and the liberating potential of self-discovery and resilience.

Yubaba's authoritarian approach starkly contrasts with the nurturing guidance that Chihiro eventually finds within herself and through her interactions with other more benevolent characters. This dichotomy underscores the film's exploration of different parental archetypes and their effects on a child's development. The contrast between Yubaba's harshness and Chihiro's eventual self-reliance illuminates the resilience that can emerge from adversity, reinforcing the idea that overcoming significant challenges can lead to profound personal growth.

Chihiro's transformation is not only a personal victory but also a commentary on the broader human experience. Her journey through the fantastical world of the bathhouse, fraught with trials and tribulations, mirrors the universal process of growing up and finding one's place in the world. Through this lens, Miyazaki's *Spirited Away* becomes a rich text for psychoanalytical exploration, offering insights into the dynamics of familial relationships, the impact of adversity, and the journey toward self-discovery and empowerment.

Fear, according to Foucault, establishes a precarious dynamic wherein an individual's perception of self-worth becomes entwined with their capacity to accommodate and succumb

to fear's dominion (Kelly, 2020). In this vein, paranoia, another form of fear, thus evolves from a mere emotional response into a defining facet of one's identity, becoming a pernicious force. Macbeth's tragic trajectory attests to the corrosive nature of such fear-induced identity entanglement. His dread of the prophetic revelations, coupled with the allure of power, sets in motion a series of transgressions that not only lead to his moral decline but also cement his inexorable fate. Macbeth's inability to reconcile his paranoia with his burgeoning ambition drives him further into the abyss, ultimately culminating in his downfall. His fearful submission to the prophecy becomes the fulcrum upon which his actions pivot, inexorably leading to his tragic demise.

Conversely, Miyazaki's portrayal of Chihiro in *Spirited Away* presents an illuminating counterpoint to Foucault's premise. Chihiro's journey unfolds as a narrative of paranoia transformed into empowerment through her tenacious defiance of it's grasp. The spectral realm of the bathhouse, where Chihiro finds herself, symbolizes the domain of her fears, both tangible and intangible. Initially, her hesitations and anxieties hold her captive within this ethereal plane. However, her transformative evolution is catalyzed by an astute realization: the dominion of paranoia can only hold as long as she allows it to shape her identity.

Chihiro's resolve to confront her fears head-on, exemplified by her determined descent down the rotting stairs, serves as a pivotal turning point. This courageous confrontation enables her to reclaim agency over her narrative, breaking the shackles of fear's control over her. As she navigates the challenges of the bathhouse, Chihiro's character matures. Her journey is marked by acts of bravery and selflessness, such as her determination to save her parents and her interactions with the bathhouse's residents. These acts signify her growing resilience and the gradual erosion of her initial timidity. Chihiro's transformation is profound. From a frightened and uncertain child, she evolves into a confident and self-reliant individual. This metamorphosis underscores the theme that true courage is not the absence of fear, but the willingness to confront and overcome it. Her story contrasts sharply with Macbeth's, as Chihiro's ability to transcend her fears leads to empowerment and growth, while Macbeth's submission to his fears leads to destruction and despair.

Foucault's exploration of fear's dominion as a function of identity provides a nuanced lens through which to dissect the trajectories of both Macbeth and Chihiro. The interplay between paranoia, identity, and agency unfolds as a salient thematic thread, underscoring the dichotomous ways in which fear can shape destinies. Macbeth's tragic spiral illustrates the perilous consequences of fear's unchecked control, leading to his moral and eventual physical demise. In stark contrast, Chihiro's liberation through confrontation demonstrates the potential for fear to serve as a transformative force, fostering personal growth and emancipation from its stifling grasp.

Through Foucault's perspective, we see that fear, when allowed to define one's identity, can become an all-consuming force, leading to actions and consequences that perpetuate a cycle of despair and downfall. However, when confronted and managed, fear can become a catalyst for growth, resilience, and empowerment. The contrasting outcomes of Macbeth and Chihiro's narratives illustrate the complex and multifaceted nature of paranoia, highlighting the profound impact it has on the human psyche and the trajectories of their lives.

The dichotomy between Macbeth and Chihiro offers a compelling study in the contrasting trajectories that fear can engender. Macbeth's fearful capitulation ultimately seals his fate, an embodiment of Foucault's assertion of fear's power when permitted to define one's identity.

In contrast, Chihiro's emancipation from fear's grasp underscores the potential for resilience and personal growth when fear is acknowledged, confronted, and ultimately overcome. Her narrative serves as an eloquent testament to the transformative potency that lies in embracing fear as a catalyst for change.

The narrative tapestry of *Spirited Away* is intricately woven with threads of identity formation, ideological maturation, and moral development, all orchestrated through the prism of Chihiro's tumultuous journey. This confluence of psychological nuances and existential dilemmas necessitates a psychoanalytical vantage point to unearth the intricate tapestry of emotions underpinning every consequential action and pivotal decision. In this way, *Spirited Away* stands as a remarkable testament to Miyazaki's unparalleled ability to interweave narrative depth with a rich palette of human experience. The scholarly works of Swale (2015) and Brockmann (2008), who articulate the profound relevance of the psychoanalytical approach in unravelling the multi-dimensional layers of *Spirited Away*, illuminate this thematic tapestry. Their analyses highlight how Miyazaki's creation invites us to traverse the labyrinthine corridors of the human psyche through the transformative journey of Chihiro and her supernatural companions.

Swale (2015) delves into the psychoanalytical undercurrents of Chihiro's character, suggesting that her initial paranoia and uncertainty serve as catalysts for profound personal growth and resilience. By confronting her fears head-on, Chihiro evolves from a timid and vulnerable child into a courageous and self-assured young adult. This transformation is not merely a journey of survival but a testament to the human spirit's capacity to transcend adversity and emerge stronger. In a similar vein, Brockmann (2008) explores how *Spirited Away* encapsulates Miyazaki's thematic exploration of identity and moral development amidst fantastical and surreal circumstances. The bathhouse, a surreal realm where spirits converge, becomes a metaphorical crucible wherein Chihiro confronts her deepest fears and navigates the complexities of identity formation.

Together, these scholarly analyses underscore the profound impact of Miyazaki's creation, inviting readers and viewers alike to delve deeper into the profound themes of fear, identity, and personal growth as illuminated through the transformative odyssey of Chihiro and her supernatural companions.

Conclusion

Paranoia as a potent and destructive force serves as a poignant common thread interwoven between Shakespeare's *Macbeth* and Miyazaki's *Spirited Away*. Both works intricately delve into the multifaceted dimensions of paranoia, elucidating its corrosive influence on characters' psyches and the transformative potential inherent in confronting and overcoming such fears.

At the beginning of their respective narratives, Macbeth, Lady Macbeth and Chihiro stand as embodiments of the human psyche confronted with the paralyzing grip of fear. Each protagonist is thrust into an unfamiliar realm, their prior certainties and comforts giving way to an unsettling and unknown landscape. This shared beginning, characterized by trepidation and vulnerability, sets the stage for a profound exploration of how paranoia manifests and exerts its influence.

In *Macbeth*, Shakespeare portrays fear as a catalyst for the protagonist's descent into moral decay. Propelled by ambition and the prophetic instigation of the three witches, Macbeth becomes ensnared in a web of fear. As he grapples with the harrowing implications of the witches' predictions, his paranoia metastasizes, catalyzing a series of nefarious actions driven by his desperate quest to thwart the ominous prophecies. The initial fear of the unknown and the potential loss of power manifests as a self-fulfilling prophecy, culminating in an inescapable cycle of paranoia, violence, and moral decay. Lady Macbeth, too, becomes a victim of fear, her initial ruthless ambition giving way to overwhelming guilt and psychological torment, leading to her tragic demise.

Similarly, Chihiro's entry into the enigmatic world of *Spirited Away* marks the commencement of her odyssey into the realm of fear. The sudden and bewildering transformation of her parents, the unfamiliarity of the bathhouse, and the presence of formidable supernatural beings collectively contribute to her profound sense of vulnerability and paranoia. Unlike Macbeth, Chihiro's narrative trajectory diverges as she embarks on a transformative journey of self-discovery, courage, and resilience. Her willingness to confront her fears head-on engenders a process of empowerment and enlightenment. As she negotiates her fears with unwavering resolve, Chihiro navigates her path toward emotional growth and self-actualization.

While the characters' initial encounters with fear and paranoia are comparable, the divergent paths they traverse in response to fear's influence are emblematic of the thematic nuances delineated by Shakespeare and Miyazaki. Macbeth succumbs to his fears, allowing them to transform him into a tyrant consumed by paranoia and brutality. In stark contrast, Chihiro emerges as an embodiment of resilience, embodying the potential for growth through the deliberate confrontation and transcendence of fear.

Foucault's exploration of paranoia's dominion as a function of identity provides a nuanced lens through which to dissect the trajectories of Macbeth and Chihiro. The interplay between fear, paranoia, and agency unfolds as a salient thematic thread that underscores the dichotomous ways in which fear can shape destinies. Fear, as Foucault suggests, intertwines an individual's self-worth with their submission to fear's dominion. This turns paranoia into a destructive force when it becomes integral to one's identity. Macbeth's tragic path exemplifies this, driven by dread of prophecy and lust for power, leading to moral decline and his demise. In contrast, Miyazaki's Chihiro defies fear's grip, her journey evolving from paranoia to empowerment. The bathhouse represents her fears, and her transformation begins when she acknowledges fear's hold on her identity. Chihiro's resolution to face her fears marks her turning point. She regains narrative agency, unshackling from fear's control.

The dichotomy of Macbeth and Chihiro reveals how fear's influence can diverge. Macbeth's surrender seals his fate, illustrating Foucault's concept of fear defining identity. Conversely, Chihiro's liberation highlights resilience through confronting and surmounting fear. Her story exemplifies the power in embracing fear for transformative change. The divergent responses to paranoia by Macbeth and Chihiro underscore the profound thematic explorations of both Shakespeare and Miyazaki, offering rich insights into the complex interplay between paranoia, fear and agency.

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Contact email: sanjukta.chakraborty@s.amity.edu

***Uncanny As Missed Lack —Uncanny's Pre-ontological Position as a Premise for
Paradoxical Conceptual Art***

Zhi Han, Lancaster University, United Kingdom
Charlie Gere, Lancaster University, United Kingdom
James Quin, Lancaster University, United Kingdom

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In this article, I will focus on two issues: first, the essential connotations of the Uncanny and the underlying reason for the Uncanny in this study as a phenomenon that reveals the reality behind the appearance of the artwork, i.e., Uncanny as missed lack. The second question focuses on the reasons for locating the Uncanny in a pre-ontological position. For the first question, I will begin by clarifying that the essence of the Uncanny is the direct presentation of *Tuché*, that is, the confrontation of person with *das Ding*, that is, the direct presentation of the Real as Lack. This will be distinguished from the concealment and utilisation of the Real in the conscious symbolic order, and the substitution of the Real in the unconscious representational order. Subsequently, I will focus on *Tuché* as an encounter with the Real can only be grasped as missed, whether in conscious or unconscious structures. This missed form is then linked to the second issue of this study, which is that missed lack, with its paradoxical logical structure, transcends ontological constraints and cannot be anchored by ontological narratives. Because of its paradoxical character, missed lack cannot be described simply as an 'is', but rather as a failed 'is'. In this paper, the discussion of the first issue draws heavily on Lacan's psychoanalytic theory, while the second needs to be supplemented by the related idea of Derrida's *aporia*. Clarity on both aspects of the Uncanny helps establish a firm precondition for creating paradoxical conceptual artworks.

Keywords: Uncanny, Tuche, The Real, Unconscious

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Introduction

This research aims to explore how the paradoxical conceptual artworks can reveal the possible reality behind the works through the dialectical art paradigm of 'failure'. In this essay, I will focus on the crucial precondition for this central theme, namely the experience of the revelation of the Real that lies behind the work, i.e., the Uncanny, and focus on the pre-ontological position that the Uncanny occupies within that theory. In that essay, I will begin by pointing out the non-experiential essence of the Uncanny, i.e., that the Uncanny is not a positive phenomenon but an encounter (Tuché). Subsequently, I will argue that the kernel of Tuche is the primordial confrontation between the person and das Ding, what Lacan claims to be the Real, and that the Real is presented as a Lack in both the conscious and the unconscious realms. Finally, I will demonstrate that the viewing subject can only grasp this lack in the missed form. I will use Derrida's analysis of the aporia to indicate that it is through the missed form that the Uncanny can transcend ontological limitations and become pre-ontological. Ultimately, this miss presents the work as a doomed failure and leads to the generation of the work in the form of a failed triad. Therefore, the study can be summarised here in "Uncanny as missed Lack" and "failed triad as a central paradigm for paradoxical conceptual artworks". This paper will focus on the first statement.

In previous studies, the Uncanny has been chiefly positioned as a product of the failure of the mimetic gaze. For example, in Freud's article *The Uncanny*, the Uncanny is situated between the simultaneous semantic intersection of the 'familiar and relevant' and the 'unfamiliar and hidden from sight' (Freud, 1976). In that article, Freud also summarises the basic features of the Uncanny phenomenon in literature, namely the "double" (the resurrection of the dead or dead things to life), the "repetition" (the unconscious compulsion to repress), and the "animistic" (the belief that the world is full of human spirits), and points out that the essence of Uncanny is a conflict of judgement. In Professor Masahiro Mori's article *The Uncanny Valley* (M. Mori, 1970, p.33-35), it is also suggested that when a humanoid robot approaches but fails to achieve a realistic humanoid appearance, a person's reaction to it will suddenly change from sympathy to aversion. This uncomfortable feeling, which arises from the overlap of the familiar and the unfamiliar, is the phenomenon of Uncanny. In the field of art, Mike Kelley and Tate Liverpool co-curated the exhibition *Uncanny* in 2004 (Tate, 2004), which also reproduced this phenomenon. Mike Kelley uses a large number of colourful figurative sculptures to explore the conditions and modalities of this perceptual phenomenon. He linked these works to Freud's notion of the double, the disturbingly realistic representation of figures suspended between life and death, evoking the experience of Uncanny through the repressed strangeness of these familiar parts.

The above discourses, which position Uncanny from the perspectives of literature, science and art, all centrally locate the concept in a conflict of empirical judgements. In these contexts, the Uncanny always exists as a mismatch between the symbolic structure presupposed by the subject and the symbolic structure formed by the subject after being disturbed by the conflict of empirical judgment. But there is a problem: it is not enough to locate the Uncanny in dissonance in the realm of experience and consciousness, i.e., a dislocation in the symbolic order. For instance, in Freud's analysis, his orientation towards several features of the Uncanny remains in the ambiguous polysemy and imprecision of human consciousness and the symbolic realm. Although it involves being aware of the unknowable part of the symbolic order, he treats this factor only as a feature of the cause of the phenomenon, not as the essence of it. Similarly, in *Uncanny Valley*, only the dislocation of preconceived cognitive experience from real cognitive experience is discussed, i.e., the

dislocation of the "anthropomorphic appearance of the robot" from the "not-quite-anthropomorphic appearance of the robot". This real cognitive experience does not represent the sensuous perception of real things, of material objects, that is, it describes not the sensuous as Hegel claimed, i.e., as something that is perceived but "still unfamiliar", but rather as the symbolic grasp of the result of such intuitive perception. Thus the Uncanny discussed in Uncanny valley is only a dislocation between the perceived signifying reference and the actual signifying grasp. It still fails to move out of the realm of the perceived, that is, the expected as 'supposedly recognisable as familiar', or the realm of the object's reference in the symbolic order. This is better demonstrated in the art field, where Mike Kelly curates an exhibition that aims to reveal a sense of repressed strangeness through the dissonance of daily realistic figurative images. This sense of strangeness originates from the sensuous, primitive projection of real material things in the human cognitive process. This primordial shadow of material object which not yet be castrated by signifying operation in human's cognitive world, is what Lacan claims to be *das Ding* and is the basis for the operation of Lacan's key term, the Real. It is also the meaning of "truth" in this study. However, while art addresses and presents this field, it fails to enclose it with the tools of language, and it is this regrettable complement that the essay aims to explore.

Therefore, this study claims that the Uncanny reveals a dislocation of judgment. However, this dislocation does not remain in the symbolic order as previous location. Still, it is situated in a dislocation between the symbolic grasp of material things and the intuitive sensory experience of material things. Because the experience in the psychoanalytic sense refers narrowly to the content in the symbolic order, the Uncanny is pre-experiential. It should also be pointed out that the Uncanny is not the essence of this dislocation but rather the representation of it, where the Uncanny is in the same position as the psychoanalytic term *vorstellungrepräsentanz*. The *vorstellungrepräsentanz* refers to the pre-symbolic representation of the empty place of something that disappears, something that is lacking, in the realm of the unconscious. Here, the uncanny is similar to the *vorstellungrepräsentanz* of the empty space, which is to say that the uncanny, as a representation of the gap between the success and the failure of the judgement. It is the structural negation of the symbolic and pre-symbolic affirmation of experience as "having happened", and which therefore transcends the ontological locus of ontology in the form of a 'missed lack'.

Transcending Ontology and the Pre-ontological Positioning of Uncanny

As mentioned, the artwork presents the Uncanny in a gesture transcending ontology. From a psychoanalytic point of view, the enclosure of the parts of the conscious and unconscious that cannot be represented (*das Ding*) reveals an epistemological impotence. It is this impossibility of representation that gives Uncanny the ability to transcend ontology since ontological representation is based on the certainty of "is" and the limits of language, whereas, in psychoanalysis, it is the encirclement of the *das Ding* through a retrospective and limited linguistic or symbolic reference that suggests its place in existence. Because *das Ding* transcends the limits of language and definition, it gives its representation, the Uncanny, a place beyond ontology. Specifically, Uncanny is born out of something unrepresentable, in which the subject builds the symbolic order of consciousness and the representation order of unconscious based on its unrepresentability to conceal its existence, always erupts forth and manifests itself at an inopportune moment. This eruption of the Real threatens the subject's symbolic order because it reveals the illusory essence of the symbolic order by which one understands the world, and the eruption of the Real is the total failure of the signifier's substitutionary role. But simultaneously, this radical failure is also a temptation

that drives the continuing desire to symbolise it. This failure is also the most fundamental coordinate by which the symbolic order was first established to surround it. The eruption brings about unpleasure by destroying the symbolic order because this eruption reveals to the subject the existence of *das Ding*, but the subject cannot find any signifier to refer to *das Ding* that refuses to be symbolized (Slavoj Žizek, 2008, p. 292). But at the same time, it brings great pleasure to the subject because it is the most fundamental lack, which transcends every phenomenal, empirical experience brought about by language and symbols so that it can be the eternal source of the subject's desire, the eternal drive of the subject's desire for the symbolic occupation of it. This pleasure brought about by displeasure is the *Jouissance* of psychoanalysis, the essential characteristic of the Uncanny as a representation: a substitute for the subject's encounter with the dimension of the invisible. It follows that the positioning of the Uncanny cannot simply claim to be what the Uncanny is, since it is nothing in terms of the dimensions of experience and language. What it replaces is the conflict and failure between the original experience derived from external things and people's grasp of this original experience. Hence, Uncanny is beyond ontological definition, the representation of this concept is the same as the representation of the supersensible which it replaces, it is mere enclosures.

Is it possible to use an expression to refer to this substitution and envelopment of Uncanny? One of Lacan's terms is most appropriate here, that of *Tuché*. Uncanny, as a hard kernel of the unsymbolizable that remains in the symbolic world. This hard kernel is described in psychoanalysis as the object of the Real, namely *das Ding*. And this experience of transcending the symbolic order is the subject's reflection on the pre-conscious stage. This difficult reflection, this disruption of a solid symbolic structure, must occur through the subject's encounter, or confrontation, with the Real, that is, through the explosion of the Real. Thus, Uncanny's formulation of the 'return of the subject to the primal confrontation with *das Ding*' is more similar to Lacan's invocation of Aristotle's terminology, *Tuché* (the encounter with the real) (Lacan, 2004, p. 53).

Tuché is an important function of the unconscious, which describes the subject's encounter with the object of the Real in the cognitive process. Here the object of the Real originates from the entity of the objective material world but acquires a paradoxical character when it enters the world of human cognition; on the one hand, Because of its essential richness stemming from materiality it refuses to be fully symbolised, and on the other hand, also in the symbolic order, it plays a structural role through its non-existence. Thus, for the subject's internal epistemic world, the object of the Real is a disembodied thing identified by the subject and functions as a utility. Without a symbolic order, this empty position of the Real cannot be revealed through symbolic failure, but at the same time, it is this empty position that drives the subject to construct the illusion of a symbolic order to conceal its existence. This is the paradoxicality of the Real. *Tuché* primarily describes the former, the point position at which the symbolic order fails because of its encounter with the Real. It is an eruption of Real, contingent encounters that do not obey the causality of the symbolic ordering of the arrangement. It is an encounter that may be missed and the first encounter behind a phantasmagoria (Lacan, 2004, p. 54).

If *Tuché* is the encounter about representation and the Real by the method of perpetual missed in the unconscious, then it could be said that Uncanny, as a representation of this encounter, is revealed as a gesture of missed. It is neither a reality nor an encounter, even nor an experience of an encounter. Uncanny represents the concept of "missed encounter", the "slipping" of a leftover lack from sight during the encounter. The 'miss' here is a structural

miss, acting not only on the conscious but also on the unconscious. Lacan gives a very apt example here (Lacan, 2004, p. 56):

"I was awakened from a short nap by a knock on the door, and with the impatient knock, I formed a dream that showed me something different from the knock. When I woke up, I reconstructed my whole representation around this knocking, and then I realised that the knocking was not in my perception but my consciousness. I know I am waking up, that I am knocked up."

Between dreaming and waking, the revelation of the Real appears both before the beginning of my dream representation, evoking the *vorstellungrepräsentanz* constructing a metonymic representation, and at the same time at the moment before I wake up and begin to construct my symbolic order. The knocking in reality is the object of the Real, first of all, it exists exactly as a materiality in the reality, but in the cognitive process of the subject, it exists only as its effectiveness, but not as a point of its entity. Whether in the unconscious or conscious stage, the object of the Real, the knock, exists only as a precondition in the structure and as a foreign object that the structure cannot assimilate. In other words, the knock is a determining factor that plays an important role in the subject's cognitive world. However, simultaneously, both due to its unsignifiable character and due to its residue of becoming a signifying operation that cannot be ignored, this nature leads to its appearance in the subject's unconscious and conscious mind only in the form of a dislocation of its ontological positioning, i.e., it is positioned as a determined lack. Thus, the knocking is opaque to the dreamer, both consciously and unconsciously. On the one hand, in the unconscious, it only provides a starting point for the dream's metonymy of the knocking on the door of reality, i.e., it makes the metonymy of the incomprehensible reality a representation of the absence of meaning, i.e., the *vorstellungrepräsentanz*. On the other hand, in the realm of consciousness, it is through the influence of this thing that has already occurred in the past, i.e., after I have been awakened, that the symbolic order is constructed around the fact of "being awakened" and incorporates the signifier of the "I" into this order. I woke up first and then realized what had woken "I" up.

It can be seen that the common cause of the Uncanny's functioning in both the unconscious and conscious phases is twofold: On the one hand, there is the paradoxicality of the object of the Real, i.e., as a structural void that serves a precise function. On the other hand, there is how the subject perceives the object of the Real, i.e., *Tuché*, or the encounter with the object of the Real in its pre-ontological position as "missed." However, it should be clarified that there are specific differences in how this encounter of missed works at the unconscious and conscious levels. In terms of the content of missed, at the unconscious level the subject misses the absence behind the metaphorical representation of the dream, which is the drive of representation in the unconscious. At the conscious level, the subject misses the absence behind the symbolic structure that constructs reality as the basis. This lack is both the driver of construction and simultaneously the fact that the constructed symbolic structure wishes to conceal, that is, the purpose of its construction. This missing makes the Uncanny incapable of being grasped simply in terms of an ontological assertion; its paradoxicality takes it beyond the limits of ontology, and for the subject, the thinking of this transcendence needs to be achieved by retrospection.

Uncanny and Aporia

Uncanny's question is formally similar to aporia, even if they are far apart in their textual meanings. Uncanny refers to a doomed miss where the real meets the symbolic/representational, whereas aporia in Derrida's text refers to a pervasive flaw, dilemma, or paradox. It is a paradoxical idea conveyed negatively in a linguistic, philosophical text due to the boundaries of thought and the limits of language. It is a category in which thinking can no longer find a clear passage and puts thinking in a dilemma with no way out (Derrida, 1993, p. 15-19). However, apart from the meaning of the text, both achieve an ontological leap in the same way. They both disrupt the positioning of the "exact" using the paradoxicality of their logical structure, and their contradictory connotations keep them in a semantic space of unrecognisability, i.e., in a state of uncertainty. Uncanny, with the aforementioned essential "encounter with the object of the Real," is stuck between empirical representations and non-empirical representational failures. The aporia is situated between language and language, between concepts and concepts, between the boundaries of different ontologies, or between the boundaries of truth, it is "not knowing where to go (Derrida, 1993, p. 12)" that exists after the end of truth, the end of the description, the end of concepts. Aporia repeats itself, splits itself, contradicts itself, and shifts contradictions from one place to another by opening up an endless experience (Derrida, 1993, p. 16). It achieves an equally dynamic transcending of the boundaries of definition by depriving thinking of a determinate path (Derrida, 1993, p. 23). In this regard, Heidegger provides an apt example in *Being and Time*, that is how the contemplation (mourning) of "death" in fact transcends the boundaries of language and sameness, that is, the boundaries of the present round (Derrida, 1993, p. 23). For Heidegger points out that for Dasein's death, it is not any mortal death, nor any conceptual or material death, it is "the possibility of the pure and simple impossibility for Dasein ". Thus it is both absolutely replaceable and yet absolutely unique (Heidegger, *Being and Time*, p. 250 cited by Derrida, 1993, p. 23).

Both Uncanny and Aporia interrogate presupposed existence outside the boundaries of discursive/symbolic and identity/ontological categories, although the difference is that the presupposition that Aporia interrogates is a non-passage, a chaotic infinity of possibilities revealed by language to which no identity is assigned in Derrida's theory. Yet the presupposed object of Uncanny's questioning, although also outside the boundaries of representation and sameness, is the chaos between the representable and the unrepresentable that is revealed by psychoanalysis, the pure negativity the Real brings. This pure negativity exerts its structural efficacy differently in the symbolic ordering phase of consciousness and the metonymic phase of unconscious representation.

In the structure of the unconscious, or in the context of dream, when the knocking occurs, a metaphor for the "disturbance" that has already occurred from the object of the Real, i.e., the dream representation, is generated. Meanwhile, the noise of the knocking as the material object has retreated quietly behind these representations. In the unconscious, people cannot directly recognise the Real that evokes alternative representations and metonymy, because in the dream one does not have an essentially negative subjectivity. As Descartes's "I think" suggests, Descartes clarifies the "I think" in the "I doubt" (Lacan, 2004, p. 44). The reason why 'I doubt' can be created is that what constitutes the subject is not only the illusion of the subject's symbolic grasp of the self but also the Real, which refuses to be grasped. The subject's certainty of self-existence is confirmed by cross-checking the signifier of the self with the Real (Lacan, 2004, p. 45), and this confirmation basis on the refuse-symbolised part of the subject's interior, that is, the intersubjective Other or the *das Ding* that Lacan defines as

extime (Žižek, S., 2008, p. 204). This cross-confirmation, or "I doubt", is driven by the essential negativity of the Real that refuses to be grasped. Because of this cross-affirmation, the subject can escape the danger of falling entirely into the symbolic illusion. Thus, in reality, the subject can determine his subjectivity through this reflection. But this reflection is impossible in the unconscious stage because, in reality, one's the sensuous is separated from the perceived. This separation ensures the viability of cross-confirmation; however, in unconscious dreams, there is no the sensuous; the unconscious realm is composed entirely of metonymically generated representations of the object of the Real (Lacan, 2004, p.48). One can talk to oneself in a dream and tell oneself that it is a dream, but one can no longer realise that one is talking to oneself in a dream and understand oneself as a self-talking person (Lacan, 2004, p. 75). That is why, in the unconscious, the subject is the subject without negativity which deriving from its own materiality. The subject is the representation, the *vorstellungrepräsentanz*, which conceals the root of that dream that cannot be recognised. Therefore, in the dream, the subject cannot return to the lack concealed by the *vorstellungrepräsentanz*. It is only when I wake up from the dream, through the discrepancy between the sensuous of the return due to the intervention of material reality and the perceived brought about by the dream, that I can realise that there is some source of the representation of the dream, or that I presuppose the origin of the resulting dream, but that the object of the Real, which has created that source, has been missed. I can only retrospectively presuppose the location where this knocking occurs through the efficacy of that which is lost, that is, the impact of the knocking that has long since ended. At the moment of awakening, at the moment of the subject's encounter with the Real, the experience of dismay at the moment when the representational phantasm of the dream is in complete rout is the manifestation of Uncanny's functioning in the phase of the unconscious. The retracing of the position of what has happened in hindsight can be understood as a miss in terms of the positioning of Uncanny, thus giving Uncanny a pre-ontological position.

On the other hand, the conscious perspective, the Uncanny can likewise only be recognised in a missed way. Unlike the unconscious, where the unconscious misses the Uncanny because the subject does not a basis for reflection—subjectivity and therefore can only retrospectively search for the position where the dream began at the moment of awakening. However, in the conscious stage, the Uncanny is missed primarily because the encounter with the Real is the original driver for the subject's construction of the symbolic order used to grasp it. The subject has to draw on this order again to understand this encounter, so the subject can only retrospectively search for the location after it has completed the construction and identify what it seems to find as the result that justifies its presuppositions. So if Uncanny is missed in the unconscious stage because it is merely the cause of the unconscious, it is missed in the conscious stage because it is not only the cause but also the result. Specifically, the moment I awoke, I constructed my entire symbolic system around the knocking that had disappeared (Lacan, 2004, p. 56). I realized I was here, when I went to sleep and why I awoke, and then I understood there was a knock on the door. The noise in my sensuous is organised in my consciousness as a signifier that can be understood as "knocking". I can grasp a signified, which has disappeared, merely using its signifier, and can only grasp its existence by constructing a presupposition of its existence through the effect for me and grasping its existence by the symbolic order built on the presupposition of its existence. This is a paradoxical self-reference and the paradoxicality of Uncanny. In the consciousness, I organise a symbolic network of relations centred on the signifier of "I" by identifying the position of "I", and use this network to understand the causes and consequences. This "I" signifier-centred network is based on the absolute negativity of the encounter with the Real, that is, the ungraspable noise wakes me up, and I must first ask myself "what I am" before I

can realise that "I am the 'I' which was woken up by the noise" (Lacan, 2004, p. 56), and then I will realise that "when I went to sleep and when I was woken up". Through my material character, i.e., my part in the realm of the Real and my reappropriation of the signifier of the "I" in the symbolic order, the symbolic order that I reconstruct on this basis, on the one hand, obscures the source of the construction that manifests itself as Lack (the encounter with the Real), and on the other hand, provides the causal support for this source. Upon waking up, I first construct the symbolic order and locate the signifier of "I", then retrospectively identify the *Tuché* that woke me up as the "knocking". This is what Lacan means: "I know I am waking up, that I am knocked up." (Lacan, 2004, p. 56). The establishment of the symbolic order is driven by and based on this "knock" presented as a structural void and the impossibility of understanding. Therefore, the "knocking" as an object of the Real is destined to be missed; there is no place for it in the symbolic order, but only for it as a premise and purpose. It can be seen that the essence of Uncanny is, on the one hand, the cause of thinking about it and, on the other hand, the result of thinking about it. Thus, Uncanny can only be grasped in the stage of consciousness by missing and retracing, which justifies its pre-ontological position.

Conclusion

The article mainly elaborates on the premise "Uncanny as missed lack" of the research theme "Failed triad as a paradoxical conceptual art paradigm", the main idea is to clarify the pre-ontological position of the Uncanny. Uncanny, as a paradoxical phenomenon, is essentially an alternative representation of human confrontation with *das Ding*, i.e., the representation of *Tuché*. The traumatic nature of this encounter stems from the materiality and richness of the Real, which refuses to be grasped by the symbolic order and eventually becomes an eternal Lack of the subject's cognition. The Real, presented as a Lack, is also paradoxical because it plays a structural causal role in its Lack. The subject constructs the symbolic order of consciousness and the metaphorical representation of the unconscious based on the Lack of the Real, and this Lack becomes the original driver and coordinates for the cognitive world. However, the subject's attempt to grasp this identity of the Real, that is, to locate it in an ontological perspective, is doomed to failure. This is because, on the one hand, from the unconscious perspective, the Real is the cause of the representation since the subject can only stay in the representation and lacks sensual cognition of the Real. Thus, the subject cannot determine his subjectivity through "I think" and hence cannot grasp the source of the representation. In the unconscious, the subject is the representation and, therefore, cannot reflect on the cause of the representation, i.e., cannot directly grasp the identity of the Real. On the other hand, in consciousness, the symbolic order constructed by the subject is based on the anti-symbolic of the Real, but simultaneously, the subject's purpose in constructing the symbolic order is to grasp the Real symbolically. Thus, the ungraspability of the Real ensures the subject's desire for its continued symbolic grasp, and the only way to determine its position is through the order constructed by the subject's desire for its symbolic grasp. So the attempted ontological grasp of the Real in consciousness is also doomed to failure. As a result of these two confirmations, the Real can only be identified as a pre-determined logical structural point position, a pre-ontological position by retrospection, which thus proves to be at the heart of the conceptual artwork: the Uncanny as missed Lack.

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Evolution of “Color” Elements in Residential Interior Design

Ziyuan Yang, Tsinghua University, China

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This paper delves into the evolution of color elements within the realm of urban residential interior design in China from 1970s. The research presented comprehensively reviews and synthesizes the various material categories, application contexts, and stylistic considerations associated with color tone in residential interiors. The examination uncovers how the application of wall, ceiling, and floor colors in Chinese urban residences has been shaped by socioeconomic progress, shifts in lifestyle, advancements in decorating technology, and the adoption of international design paradigms. Utilizing literature review and field research methods, this study delineates the evolution of color tones on interior surfaces into three distinct phases: the period of Transitional Dynamics, the era of style integration, and the trend of simplistic return, tracing these developments from the 1980s to the present. This exploration aims to elucidate the underlying principles and determinants of the evolution of light color tones, offering a novel perspective on the transformation of modern Chinese urban residential interior design that is often overlooked—the significance of color.

Keywords: Residential Spaces, Color Tones, Chinses Interior Design

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Introduction

The transformation of residential interior coloration serves as a mirror of societal evolution, cultural shifts, and innovations in material technology. The perception of interior spaces is intertwined with the perception of their surface treatments (Corbusier & Dunnett, 1987). As private sanctuaries that mirror individual lifestyles, residential spaces bear the imprint of personal identity and symbolism (Li, 1999). The collective influence of a room's wall, floor, and ceiling colors, textures, and patterns on spatial cognition is profound, shaping our perceptions of spatial relationships, awareness of room dimensions, scale, and proportion (Ching & Binggeli, 2012). Within the context of this study, the term "plane surface" encompasses the composite of walls, floors, and ceilings—key elements of interior design. Color, as the initial and most immediate point of human contact within interior spaces, plays a pivotal role. The historical adoption of lime as a foundational moisture-resistant finish heralded a shift from the earthy brown hues of earthen constructions to the dominance of white interiors (Whiton, 2013). This color evolution marks a significant milestone in the narrative of residential interior.

From a material perspective, interior surfaces can be categorized as "revealing" or "concealing" (Shi, 2006). The distinct attribute of a coating layer lies in its intangibility, functioning as both a covering and a non-material medium, thereby contrasting with substantial materials such as stone or wood. The intangible essence of coating materials offers the most immediate and abstract representation of lightness, which bathes interiors in a luminous and translucent quality. High-lightness colors, serving as the foundational hue of the space, provide a canvas for the introduction of furniture and decorative elements, assuming the role of "concealing" within this conceptual framework. Amidst the veneration and endorsement of whiteness by modernists, it emerged as a pivotal color, highlighting the purity of architectural form through its unique "invisible" qualities.

The 1980s represented a pivotal period in the history of the People's Republic of China, which was characterized by the gradual integration of the domestic market with the global economy. This era was also marked by swift urbanization, the expansion of material production sectors, and the gradual international exposure of Chinese societal aesthetics. Concurrently, the aesthetic preferences in Chinese urban domestic settings evolved, moving away from monochromatic white towards a broader spectrum of color options. Amidst this era of transformation, the influx of Western modernist design principles brought about a shift in the perception of white in interior decor, transitioning from a color associated with concealment to one that conveyed transparency and modernity. The application of white in the domain of interior design assumed a central position, expanding from achromatic white to an array of chromatic, light-toned alternatives, which contributed to the creation of varied and nuanced emotional responses within living spaces.

In the sphere of interior surface design within modern Chinese urban residences, the adoption of light tones became increasingly widespread. The favored attributes of lightness and reflectance inherent in these tones enhance the illumination within interiors, making them preferable to colorless white. The rise in popularity of chromatic light tones as compared to achromatic white in Chinese residences could be attributed to their ability to mirror the nuanced national character and the perpetuation of the traditional Chinese ethos of 'white space', a philosophical design approach valuing negative space, thereby standing in stark contrast to the more vibrant and high-saturation color schemes preferred in Western nations.

Despite the profound impact of color theory on the discipline of interior design, the scholarly examination of the progression and transformation of color elements within this field has been neglected. In the context of China, the theoretical exploration of the evolution of urban domestic interiors is scant, with the majority of research focusing on topics such as spatial configuration (Lv, 2002), construction techniques (Ding, 2016), and etc. Chinese academic literature predominantly showcases distinctive decoration techniques and color harmonies infused with Asian and specifically Chinese attributes, which are often presented through compilations of design works (Chen, 2021; Ding, 2016). Since the 1980s and 1990s, the importation of Western interior design portfolios (Miller, 1997; Poore & Roth, 2005; Paul & Mahdavi, 2021) has been instrumental in shaping Chinese interior design through the introduction of modern decorative styles, forms, and color harmonies. These design case studies are grounded in modern lifestyle contexts, including expansive living areas, open kitchens, and flooring predominantly covered with carpets. While their applicability to the Chinese context may have certain limitations, their influence on aesthetic standards has been profound. The influx of international design firms and practitioners into China has catalyzed the development of a unique local interior design style. However, the role of color in the urban residential interior remains an under-examined aspect, particularly during the early stage of China's reform and opening-up policy.

This paper aims to explore the reasons for the application of light-tone colors in Chinese urban residential interior surfaces. Although color tones exhibit permanence, their use is not merely an aesthetic trend. The evolution of the color uses in terms of methods, materials, and scenes reflects the comprehensive results of social, technological, cultural, and more factors behind the development of interior design. The study aims to contribute to a deeper understanding of the complex interplay among aesthetic consciousness, technical development, and design levels under the overlooked perspective of "COLOR" in interior design.

Method

Evaluating the color of interior spaces is a complex and intriguing task due to its multifaceted nature. This research adopts a qualitative approach, employing image-based analysis of interior color scheme. The definition and evaluation system of interior color tones have been systematically developed. The Practical Color Coordinate System (PCCS) provides a clear delineation based on the Munsell Color System and ISCC-NBS hue division method, categorizing hues into 12 tones: vivid, soft, pale, light, bright, strong, deep, light greyish, greyish, dull, dark, and dark greyish (Figure 1). This system finds wide applications in fields such as color education and communication (Arnkil, 2021). Within this framework, the Pale tone represents the highest lightness and lowest saturation, while the Light tones exhibit increased saturation with a slight chromatic hue. In the context of this paper, Light tones encompass the high-lightness and slightly chromatic tones within the PCCS system, including pale tones, light tones and the white series.

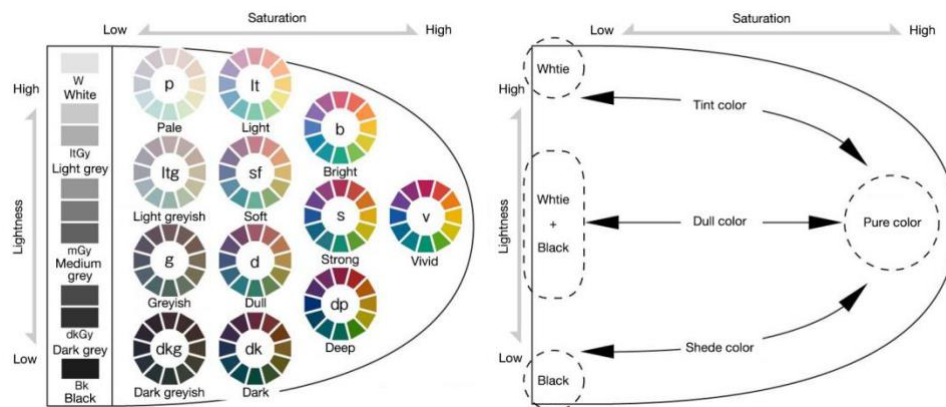


Figure 1: PCCS color tone illustration

The analytical approach also involves organizing and scrutinizing domestic historical literature, social platforms from 1978 to 2023 as the main data source. These literatures include professional and lifestyle publications, and also encompass interior design cases from design websites and social media platforms, along with photographs collected during field surveys conducted. The selected design projects and photographs were chosen because of their characteristic of major color schemes is light color tone. Those images will be examined using color extraction method. The results of the data will also be used to compare with several related concepts obtained from literature studies on industrial production documentations.

Sustaining Tradition and Embracing Modernity: Transitional Dynamics, 1970s-1980s

During the foundational years of the People's Republic of China from the 1970s, economic expansion was predominantly directed towards the growth of heavy industry. By the 1980s, the average residential construction area per capita in urban Chinese localities was confined to less than 15 square meters (Figure 2), starkly contrasting with Japan's per capita housing space of 40 square meters during the same period (Tiwari, 2000). Within these constrained indoor environments, the color white emerged as the predominant choice due to its spatial illusion of enlargement, a factor that facilitated its widespread adoption in the majority of domestic settings.

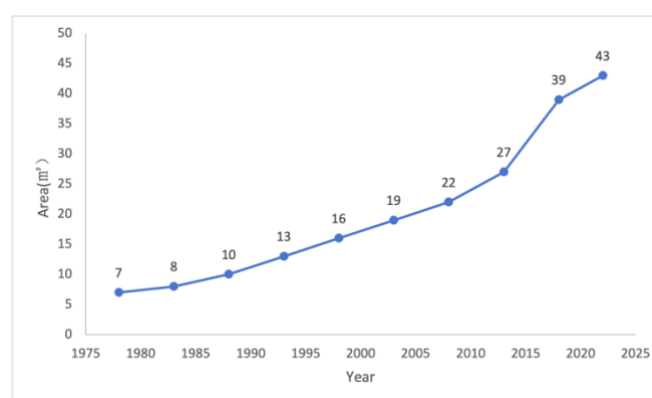


Figure 2: China's Urban Per Capita Housing Floor Area (1978-2023)

In the period implementing planned economic system, the construction guidelines emphasized the comprehensive study of theories and methods of urban planning adapted to the Soviet Union. The First National Urban Construction Symposium in 1952 introduced the architectural principle of "practicality, economy, and attention to aesthetics when possible." Under such guidance, the construction of welfare housing prioritized cost considerations, and interior space

decoration emphasized the practical "classic combination of white walls and cement floors." The methods for wall finishing were also guided by the principle of cost priority. At this time, interior coatings were rarely used in home decoration, and the most common method was "brushing with large amounts of white paste." In the context of self-constructed dwellings, decorative techniques frequently employed everyday substances such as wheat flour, table salt, and calcium carbonate lime, signifying a trend that aligns with everyday practices and distances from conventional professional construction methodologies.

Over an extended period, China's sluggish economic growth not only led to exceedingly low ownership rates of essential goods vital for sustaining life but also manifested as a considerable deficit in the provision of routine daily necessities, including fundamental domestic furniture. The concept of "home" was posited as an inflexible necessity, with individuals allocating their focus predominantly towards smaller-scale furniture during interior decor processes. Concurrent with the country's economic upswing, an increasing number of families embarked on modernized lifestyles, where the presence of modern commodities within the domestic sphere became an indicator of societal advancement.

Amidst the reforms and opening-up policy instigated in the 1980s, the escalation of socio-economic indices in China triggered an escalating populace desire for enhanced living environments. Residential design subsequently evolved towards larger, more intricate spatial configurations, spurring architects to investigate housing typologies from both theoretical and pragmatic standpoints. A shift was observed in spatial configurations, moving from "uncomplicated layouts with integrative functions" towards "complex layouts featuring distinct functions." Such transitions facilitated the delineation of diverse living scenarios, with individual preferences for color expression being realized through the decoration of diverse functional rooms.

Wall coloration, achieved through paint application, experienced a transformation from monochrome to multicolored, a testament to the progress in China's paint industry technology. During the 1980s, China imported over ten state-of-the-art paint production lines and associated technologies from international sources. Domestically, paint companies also adopted technologies for the production of latex paints and architectural coatings, emulating industry leaders such as "Sherwin-Williams" and "Glidden." The advancement of domestic paint technology in the 1980s was testified significant enhancement, expanding the array of texture and color options available to consumers.

Design practitioners offer insights into painting techniques and wall pattern styles tailored for Chinese residents within interior journals, such as "Housing Technology" and "Architecture Forum" (Figure 3). The selection of wall colors was largely limited to white, frequently complemented by light green or beige for the lower sections of the walls. The application of color palettes was meticulously designed to cater to the specific roles and orientations of individual rooms. For instance, living areas and sleeping quarters favored warm hues such as pink, orange, and yellow in an effort to foster a cozy atmosphere. In contrast, work-related environments including offices, studios, and study areas inclined towards lighter, somewhat grayish tones like emerald green, sage green, and sky blue, aiming to generate a tranquil and productive setting.

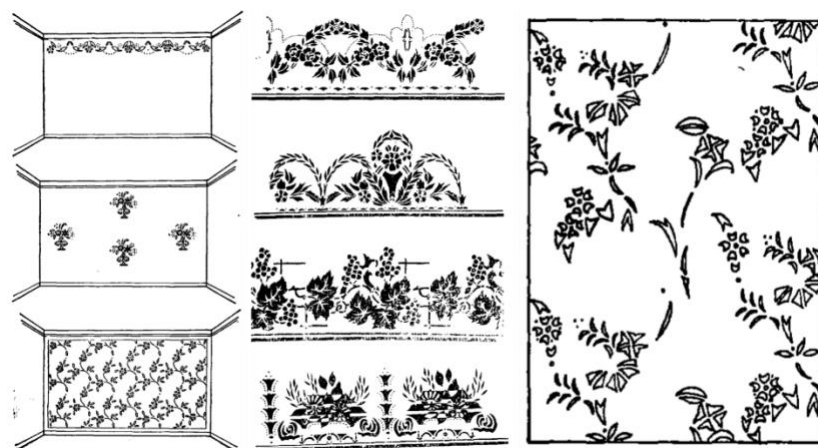


Figure 3: Wall pattern styles tailored for Chinese residents by design practitioners within interior journals.

In the realm of interior design, individuals have adopted the practice of employing patterns and a diverse array of hues to ornament their walls. This innovative approach signifies a departure from the traditional and static aesthetic characterized by the monotonous "four whites hitting the ground" motif. The shift towards incorporating vibrant colors reflects a growing enthusiasm for a more dynamic and visually appealing environment. Additionally, the transition of spatial segregation within housing typologies has precipitated a divergence in the application of materials. Living areas such as parlors underwent painting treatments, whereas utility spaces including kitchens and bathing facilities adopted glazed tiles as predominant materials (Figure 4).



Figure 4: A divergence materials and color used in urban housing in China during the 1980s.

In 1978, the “Shiwan” Chemical Ceramic Factory in Guangdong introduced contemporary technology and production lines for manufacturing-colored glazed tiles. These tiles facilitated a more streamlined process for construction and upkeep, featuring surfaces that were smooth and neat, thereby enhancing the ease of cleaning in kitchen and bathroom environments and contributing to an organized aesthetic. There was a prevalent trend of integrating glazed tiles with walls coated in paint for countertops, cabinets, and walls. Such a practice allowed for the

differentiation of interior materials to cater to the varying functional requirements of different spaces. The widespread adoption of white as a dominant color choice continued the visual heritage of traditional surface characteristics while concurrently reflecting the modern progression of material applications.

Integration of Decorative Color palettes: Chinese and Western Styles, 1990s-2000s

During the 1990s, the abolition of the state-sponsored welfare housing allocation system marked a significant shift, which transformed residential property into a burgeoning consumer market. This development propelled housing to emerge as a pivotal driver of economic expansion. The repercussions of this transition were felt within the interior design sector, catalyzing an escalation in spatial remodeling and decoration projects. Towards the end of the 20th century, residential upgrades became increasingly prevalent, characterized by the incorporation of a wide array of decorative styles and elements. The inclination towards distinctive and adorned living spaces continued to gain momentum, precipitating an array of decorative options and a heightened emphasis on professional interior design services. As a result, renowned decoration material brands from Europe, the United States, Japan, and South Korea began to penetrate the Chinese market, ushering in new opportunities for the domestic interior design landscape. The proliferation of practical design cases and works by international designers, alongside the introduction of Western modernist furniture and decorative materials from southeastern coastal regions, exposed the mainland public to global design aesthetics. This influx induced a notable transformation in the color palettes and design approaches prevalent in residential interiors.

In the course of the preceding decade, a considerable number of homeowners engaged in home improvement initiatives prior to relocating to new residences. The financial outlays associated with these renovations spanned a wide spectrum, varying from several thousand topping off at over a hundred thousand yuan (approximately 1200 USD). When juxtaposed with the mean annual wages of urban employees, which hovered around 5,500 yuan (approximately 660 USD) during that era (NBS of China, 1996), the expenses related to home modifications represented a material portion of their disposable income. Concurrently, a segment of the burgeoning affluent demographic began to manifest their economic status by integrating opulent and grandiose decorative elements into their domestic settings, effectuating the transference of aesthetically pleasing attributes gleaned from television, hotels, and boarding houses into their private abodes. The adoption of excessive styles, European motifs, among other trends, became sought-after in the realm of residential decor, exemplified by the widespread employment of features such as Roman columns and crystal chandeliers. The proliferation of international residential decor case studies and aesthetic vectors ensued with the promotional efforts of furniture and construction material brands, thereby influencing a shift in domestic decorative aesthetics. There was a heightened emphasis on decorative elements across all interior spatial dimensions, with a discernible shift in focus from traditional living and sleeping quarters to bathrooms and kitchens. This era witnessed a departure from decor that was predominantly driven by individual whims towards a harmonized methodology in spatial design that encapsulated personalized requirements.

During the analyzed period, there was a pronounced desire for interior decoration that encompassed diverse aesthetic styles, including those that were exotic, fashionable, and elegant. The burgeoning interest in interior design prompts a proliferation of literature and editorial content in periodicals dedicated to enhancing domestic environments (Figure 5). The editorial content of these publications often emphasized the importance of scientifically informed and

professionally designed color harmonization. Interior designers of the time favored the application of vivid colors on planar surfaces to modulate visual perceptions of space. To cultivate the illusion of a more expansive area, inhabitants and designers alike to decorate using lighter hues, with milk white being the color most frequently specified. Additional popular choices for wall painting included light yellow and pastel blue, which were selected for their ability to complement a variety of decorative themes. It was recommended that walls adjacent to windows be lightened more than other walls to enhance the perception of spatial expanse.



Figure 5: Architecture journals feature numerous articles and columns devoted to the beautification of interior spaces.

Furthermore, the recommendation to adjust the color scheme of furniture, such as opting for woods with a warm hue, light yellow, beige, or light gray, was widespread as a strategy to visually expand smaller living spaces. In terms of room partitioning, the design approach favored the use of glass panels over solid walls to maximize openness and space division. To foster a sense of transparency and color unity, light-colored natural wood flooring and white carpeting were preferred choices in flooring.

These design strategies and trends, as documented in the literature and magazines of the era, reflect a collective pursuit of aesthetic appeal and functional enhancement within domestic interiors. In the designs featured in publications and magazines during this period, designers used high-intensity colors on plane surfaces to adjust the visual spatial perception. To create a sense of spaciousness, interior spaces were decorated with lighter colors, with milky white remaining the most commonly used. Lighter tones such as light yellow and pale blue for wall surfaces were also popular to complement different decorative styles. Suggestions were made to brighten the walls near windows more than other walls to achieve a sense of visually spaciousness. Additionally, adjusting the colors of furniture such as woody color, light yellow, beige, and light gray was recommended to create a visual effect of enlarging small spaces. In the treatment of room facades, achieving openness by reducing the use of solid walls and utilizing glass partitions to divide spaces were common practices. Light-toned natural wood flooring and white carpets were chosen to create a transparent effect through color harmony.

Local magazines such as "Furniture World" "An Jia" and "Furniture" have successively launched special columns in home decoration publications in 1990s, showcasing international cutting-edge design styles to readers through design cases and brand advertisements. "Furniture World" focuses on interior decoration techniques, furniture design principles and methods, and the latest trends in the home decoration industry; "An Jia" focuses on design cases and personal home decoration stories; "Furniture" contains three main sections: "Industry Enterprises" "Craftsmanship and Technology" and "Design Trends", providing textual guidance and visual

demonstrations to improve residential interior spaces through "bottom-up" case studies or "top-down" selection guidance.

In examining the content of various magazines that feature cutting-edge designs and Western decorative motifs, it becomes apparent that the residential designs showcased may present significant challenges for the average consumer seeking to implement these designs in their personal living spaces. A prime illustration of this occurs within the kitchen design domain, where open-concept Western-style kitchens and comprehensive cabinetry systems are frequently highlighted in such publications (Figure 6). Yet, it is important to note that the concept of "integrated kitchens" was relatively unknown in premier cities like Shanghai and Beijing during the early years of the 21st century. The heuristic approaches to home decoration as depicted in these magazines appear to be at odds with the practicalities of everyday life for layperson readers, leading to their limited utility as practical guides. Nevertheless, for professionals in the field of interior design, these examples serve not only as a source of innovative spatial design inspiration with a global trend, but also as a reflection of current trends in interior color schemes and material selections.



Figure 6: The white and silver modern style cabinet design published in "An Jia" .

The conception of house adornment delves into the pervasive influence of urbanization and the proliferation of commercial housing on household decor. While a predominant practice in wall coloring is the utilization of light hues, advancements in material texture have engendered a distinct visual outcome in paint application. The burgeoning interior design industry has imported diverse stylistic elements from hospitality venues into private residences, leading to an expansion in the spectrum of color selections for spatial surfaces—transitioning beyond the traditional white to include high-luminance hues with chromatic nuances. Affluent families have catalyzed a focus on decorative aesthetics, specifically in surface finishes, which has precipitated a shift in the choice of wall coverings emulating international trends. This evolution has seen a migration from immaterial paint applications to the incorporation of natural resources such as wood and stone. Additionally, ceilings and intricate plaster moldings, once merely depicted in periodicals, are now finding their way into real-world domestic settings.

Residents are no longer restricted to the monotony of white ceiling and wall finishes. Modern, French, and novel Chinese-inspired designs are favored, with practitioners leveraging their professional expertise to integrate a variety of decorative materials, thereby infusing spaces with a sense of richness and opulence. The confluence of Chinese-inspired decor with modern Western styles engenders the emergence of novel color palettes by employing a variety of

materials and strong hues to augment the overall style of the living space. A residential showroom located in Shanghai exemplifies a harmonious blend of traditional Chinese motifs and western modern aesthetics (Figure 7). The bedroom features walls, ceiling, and flooring in light tones, which starkly contrast with a dark bedroom set juxtaposed against a thematic accent wall, creating a compelling depth of field. The amalgamation of Chinese-inspired decor with modern Western furniture coalesces into an aesthetically harmony. To ensure a cohesive design language, a color palette featuring extensive use of deep-hued wood on walls merges with the hues of the furniture and flooring. In terms of flooring decor, there is a departure from traditional monochromatic tiles towards more vibrant colors and bold patterns, injecting dynamism into the domestic environment. Simultaneously, ceilings are no longer limited to the pale white; instead, they are enhanced with diverse materials and bold color choices, accentuating the overall stylistic theme of the room. In stylized interiors, light-toned horizontal surfaces serve as a canvas to showcase the decorative role of color within the domestic setting, reflecting the inhabitants' aspirations and tastes during this era. This approach highlights the significance of color as a pivotal element in defining the spatial character and underscores the evolving decorative desires of the contemporary consumer.



Figure 7: A residential showroom located in Shanghai exemplifies a novel blend of color blend of traditional Chinese motifs and western modern aesthetics.

Embracing Healing and Simplicity: Color Trends Returns, the 2010s-2020s

In the contemporary era, advancements in material prosperity have established a substratum for the pursuit of premium, sophisticated, and individually-tailored interior design and decoration. The rise of novel lifestyle patterns has engendered fresh aesthetic inclinations. Simultaneously, there is an increasing emphasis on health perspectives and the enhancement of life quality, which has precipitated elevated standards for the hues and textures of domestic materials. Nonetheless, the attendant social pressure and economic vicissitudes serve as constant reminders to contemplate future development and adaptive strategies. The global economic paradigm shifts have introduced challenges to the physical and mental welfare of individuals.

In response to the burgeoning complexity of societal structures and economic paradigms, there is a growing acknowledgment that the pursuit of interior decoration should not be solely confined to a quest for opulence. Instead, the domain of interior design necessitates an integration w. In light of the relentless pace of contemporary life and the attendant pressures,

there is a discernible shift towards a more pragmatic approach in the conception of the "HOME" space. It is increasingly perceived as a sanctuary that offers refuge from the intrusions of the external environment. This shift is reflected in the emergence of distinct design keywords, where differentiation in hue and material is artfully executed in harmony with the functional roles of various living spaces. Pale, light greyish, and white tones have come to dominate as the predominant color palettes, catering to the innate human desire for minimalism and purity amidst the excesses of prosperity. This aesthetic is realized through the refinement of spatial details, the elimination of superfluous elements, and the celebration of clean lines and the resurgence of white as a symbol of purity. Attention is now being given to the spatial and sensory experiences mediated by material choices, with a meticulous control over the visual impact of white on various substrates to engender a cohesive and holistic ambiance.

Amidst the unprecedented dissemination of epidemics domestically and globally, since 2020, there has been a profound transformation in societal perspectives on life and values. Concurrently, the emergence of pernicious viruses, such as the coronavirus, has imperiled human life, prompting a demand for indoor environments that prioritize flexibility, health, and tranquility. In the face of public health emergencies, the confluence of living and working environments within the domestic sphere has become a pressing reality. Consequently, the "HOME" has evolved from a singular living space to a multifunctional domain capable of accommodating diverse activities, necessitating the integration of "flexibility" into domestic design principles. The ability to transition between dynamic and sedentary pursuits within the same space necessitates a harmonious interplay of interior color palettes and lighting. In terms of color attributes, white and high-brightness hue enhance reflectivity, contributing to a more luminous atmosphere that mitigates a sense of spatial constraint and provides the requisite "negative spaces" for various living scenarios to fulfill the demands of versatility. Light-toned palettes are appropriately responsive to the needs of adaptable interiors, as seamless white walls, ceilings, and flooring exhibit a subtle texture and color harmony, thereby emphasizing the distinctiveness of spatial configurations.

The practice of home quarantine has necessitated an upward adjustment of the benchmarks for indoor air quality and hygiene standards. Within the realm of "sterile" medical settings, the color white is systematically employed to foster perceptions of cleanliness and order. The integration of spatial immune functionality into residential constructions has rendered cleanliness an additional criterion. The cleansing influence of color imparts spatial attributes such as emotional tranquility, which concurrently exemplifies the tenet of Le Corbusier's Purism, encapsulated by the phrase "no dirty corners," and reflects a sense of serenity and equilibrium. The eradication of soft materials, including fabrics and fur, mitigates the dissemination of viruses and bacteria, thus aiding in the containment of pathogens. The utilization of white paint within sterile environments has been instrumental in fostering an impression of hygiene and order. Now, the sanitized ambiance has extended into domestic spaces. The purifying effect of color endows the environment with calm and balanced emotional attributes (Figure 8). This de-decorative design approach, which salutes modernist aesthetics, streamlines and sanitizes the spatial environment, ultimately converging on a health-centric essence of purity and reduced risk.



Figure 8: The purifying effect of color endows the environment with calm and balanced emotional attributes.

The utilization of light color schemes within interior spaces has been shown to mitigate the psychological impact of crises and stressors on individuals. Human-centered design principles incorporate natural elements and warm hues into the indoor environment, thereby augmenting its inviting softness. Contrasting the neutrality of white or light greyish tones, the warmth imparted by a combination of natural wood textures and warm colors renders the space more physically accessible and alleviating tension, ultimately facilitating a sensory experience that evokes a return to nature. The current trend in interior design, characterized by a shift from complexity to simplicity, reflects the discipline's alignment with the essence of life and the genuine requirements of a "HOME" in terms of psychological needs and functional practicality. Within the complex and rapidly evolving socioeconomic landscape, the quest for purity in design is emblematic of humanity's true nature. Following an era of ostentatious decor, the "subtractive" approach in interior design resonates with the social zeitgeist.

Result

The evolution of residential interior decoration styles and techniques offers a proximate and expedited indicator of a nation's developmental status when contrasted with the progression of spatial configurations. In the context of Chinese urban residential interiors, color tones have been a critical factor in the pigmentationally development process. This research reveals that in conjunction with the advancement of economic conditions and the perpetual transformation of societal perceptions regarding home decoration, the preference for light colors on interior spaces signifies the periodic needs of societal cohorts. The variegated utilization of vibrant hues across different materials, settings, and design eras signifies a paradigm shift in the conceptualization of "home" as a spatial cognition within the populace. Each decade of China's economic reform displays unique developmental traits, with home decoration serving as the most authentic reflection of the era's distinct features.

In the initial phase, the extensive utilization of white-washed walls, in conjunction with cement flooring, emerged as the quintessential design choice for mass housing, integrating into the daily lives of the populace. Following the inception of the urban housing reform in 1998, China's housing landscape transitioned into an era of market-oriented housing. This shift was

catalyzed by the robust growth in the real estate sector, which in turn propelled the decoration industry forward, designating home decoration as a subject of significant popular interest. Interior finishes exemplified a visual continuity from traditional spatial treatments while concurrently embracing modern material advancements. The advent of commercial housing accommodations spurred the real estate industry's progression, inherently influencing the renovation sector and transforming home decoration into a topic of widespread discourse. Academic journals in the realm of interior design began to circulate content concerning interior surface treatments, aligning with the pragmatic demands of domestic decor. These publications encapsulated and conveyed valuable insights through illustrative renderings and instructional texts, chronicling the evolution of interior decoration. Concurrently, by showcasing international design paradigms and laudable projects by local designers, these periodicals popularized a spectrum of home decoration styles. The amalgamation of Eastern and Western decorative motifs within conventional residences, which reflected individual aesthetic preferences and societal standing, accentuated the usage of vividly hued walls and flooring as distinctive markers of rich stylistic diversity.

In the opening years of the 21st century, as the economy surged forward, the pressures and challenges faced by individuals across societal, economic, and life domains reconfigured the notion of "home" as a sanctuary for recuperation and solace. This shift in lifestyle dynamics precipitated a transformation in the conceptualization of "HOME," ushering in novel expectations regarding the quality of living spaces. The design philosophy of "reducing complexity to enhance essence" reframed the design discourse to prioritize "quality and harmony." This approach emphasized the creation of serene interiors through the use of neutralizing white and soft, light greyish hues, thereby responding more effectively to contemporary demands for "shelter" and aesthetic satisfaction.

The evolution of interior decoration, shaped by the era's context, material craftsmanship, and stylistic proclivities, serves as a mirror to the progression of Chinese interior design. The rise of public consciousness regarding home decoration, the adoption of Western modern decorative idioms, and the redefinition of "home" in response to societal crises have been pivotal in driving the development of light-colored plane surfaces within Chinese residential interiors since the era of reform and opening-up.

Conclusions

Drawing upon the developmental trajectory of color tones in the realm of residential interior space, the progression of house decoration in China throughout this period can be delineated into three distinct phases:

1) During the 1970s and 1980s, a milestone in the industrialization of decorative materials marked a significant advancement in the sector, albeit predominantly accessible to economically advantaged families. The prevailing aesthetic remained entrenched in the traditional "four whites hitting the ground" motif, reflecting a conservative approach to interior decoration. 2) The 1990s and 2000s saw the introduction and integration of international decorative styles into the public domain, culminating in a syncretic amalgamation of Chinese and Western decorative idioms within residential design. This era was characterized by a more audacious and opulent application of interior plane surface colors, accompanied by an expanded array of material selections. The period also heralded a notable transformation in the interior home decoration preferences of the general populace. 3) The 2010s and early 2020s witnessed a paradigm shift in lifestyle choices and the conceptualization of "HOME," giving

rise to a trend favoring simplification in residential interior decoration. This was manifested in a shift from ornate and distinctive styles to an emphasis on establishing an atmosphere conducive to security and comfort.

Subsequent scholarly inquiry is poised to examine the developmental processes of a broader spectrum of colors, and the deployment of various materials. As critical components that underscore design aesthetics and spatial ambiance, the study of color application, material selection, and texture manipulation will continue to assume pivotal roles in assessing the contemporary narrative of interior design in China.

Acknowledgements

This work is supported by The National Social Science Foundation of China's Artistic Disciplines project, "70 Years of Interior Design in New China (1949-2019)."

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Contact email: ziyuanyang@126.com

***Designing Virtual Restorative Environment With Generative AI:
Hardware and Design Considerations***

Kuei-Yuan Chang, National Yunlin University of Science and Technology, Taiwan
Chang-Franw Lee, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In today's fast-paced world, effective relaxation strategies are crucial for alleviating psychological stress and enhancing productivity. The theory of restorative environments is gaining acceptance, yet many, like those in high-stress jobs or with mobility issues, find it challenging to implement. To address the issue of accessibility, Virtual Reality Exposure Therapy (VRET) has been developed. This study identifies that current VRET applications, despite utilizing immersive technology to achieve virtualization and remote accessibility, still struggle with issues like unidirectional content and lack of personalization. To fill this gap, this study focuses on the capabilities of Generative AI, particularly in personalization, diversity, engagement, and inclusivity, showing significant potential in addressing cultural and aesthetic variety. Based on the foundation of Virtual Reality Exposure Therapy (VRET) and Restorative Environment Theory, this study aims to incorporate insights from experts and developers to establish the prerequisites, effectiveness, and design strategies for integrating generative AI in virtual restorative environments. The anticipated outcome is to fulfill more personalized psychological needs and create well-being for a broader audience.

Keywords: Restorative Environment Theory, Virtual Reality Exposure Therapy (VRET), Artificial Intelligence Generated Content (AIGC), Generative AI

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Introduction

1.1 Contemporary Mental Health Needs

In contemporary society, workplace stress and psychological distress are widespread. The fast-paced and oppressive environment of urban life often leads to the accumulation of stress, which becomes a source of negative emotions. Living in a high-pressure urban environment, people often feel exhausted and hard to manage their stress, which have bad effect on their physical and mental health (Zhang & Guan, 2023). In response to this stress, many workplaces and companies are now exploring effective ways to take breaks, like space changing, short breaks, or practicing mindfulness (Espinoza et al., 2023; Yu et al., 2018; Liu et al., 2023).

1.2 Restorative Environment Theory

In the late 20th century, many scholars discovered that natural environments have a strong positive effect on people's emotional regulation. Contact with nature can enhance cognitive control, reduce stress, and relieve negative emotions (Kaplan & Talbot, 1983; Ulrich, 1991; Kaplan, 1995). This phenomenon has also gradually evolved into the Restorative Environment Theory (Kaplan & Talbot, 1983), which has been widely used in modern design considerations.

The impact of restorative environments can generally be divided into four key factors down below (Zhang & Guan, 2023):

1. Principle of Distance:
A scene that diverts attention, let the body and mind be slightly away from the familiar environment, and experience things that are inaccessible and hard to try.
2. Principle of Richness:
A scene that diverts attention, let the body and mind be slightly away from the familiar environment, and experience things that are inaccessible and hard to try.
3. Principle of Attractiveness:
It can attract people's attention without much guidance, achieving the purpose of shifting attention and healing.
4. Principle of Compatibility:
An ideal compatible environment adapts to the user, featuring beautiful and tranquil scenery that allows people to shift focus to the overall experience, achieving mental relaxation.

An appropriate environment can effectively help reduce stress, alleviate negative emotions, and restore mental fatigue (Figure 1). Providing a space that can rejuvenate users' physical and mental health, improve emotions, and induce self-healing has also become a focus of effort for designers and researchers.

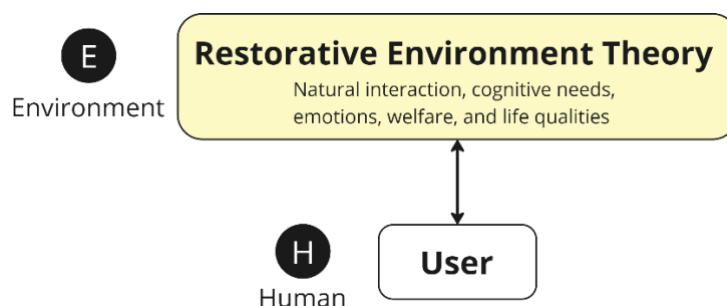


Figure 1: The Interaction Between People and Restorative Environments

1.3 Virtual Reality Exposure Therapy (VRET)

Although Restorative Environment Theory has gradually been recognized by everyone, there are still many peoples are difficult to benefit from this method. For example: patients with limited mobility, the elderly who require close medical care, workers find it difficult to leave their working environment, etc.

At the same time, technological advancements continue to become more progressive and widespread. This has led to the design of new types of interactive mechanisms and innovative interactive hardware, such as virtual reality equipment and wearable devices. These developments have also broken through the limitations of traditional interaction mechanisms and user interfaces (Espinoza et al., 2023).

To overcome the distance factor of restorative environments, Virtual Reality Exposure Therapy (VRET) has been gradually developed (Rothbaum et al., 2016). Advantages of VRET include the ability to control the scene, customize the environment, and provide a virtual environment without leaving the medical setting (Rothbaum et al., 2016).

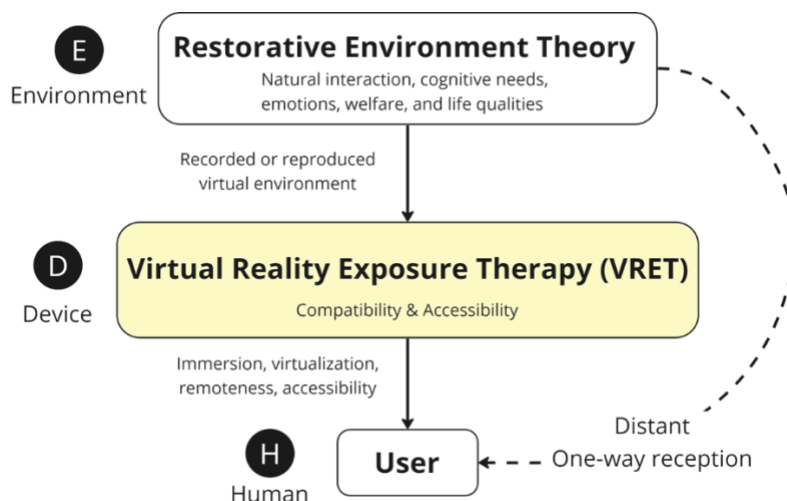


Figure 2: Experiencing Restorative Environments Through Technological Objects

In recent years, as technological capabilities have matured, many innovative research are using immersive technologies to create restorative environments.

For example, a Swiss research team (Jaquenod et al., 2023) proposed a method allowing elderly individuals with dementia to experience immersive travel within a safe, controlled medical environment. This non-pharmacological therapy fosters relationships between

caregivers and patients, using relaxing memories to alleviate the distress associated with dementia. Additionally, the use of head-mounted VR devices paired with virtual equestrian simulators (Ortet et al., 2023) allows the elderly to overcome fears of animals and the costs associated with traveling to equestrian centers. Liu et al. (2023) utilized VR to simulate natural environments for stress recovery among workers in isolated, confined, and extreme environments. These innovative attempts have allowed the Restorative Environment Theory become virtualized and remote (Figure 2).

1.4 Human-Centered AI & Generative AI

At this stage (Figure 2), VRET content is mostly pre-recorded images or artificially constructed virtual scenes, which still have limitations on users' individual emotional needs, content richness, and interactivity. In response to this situation, Pizzoli's research team (2019) proposed a "user-centered" VR experience that allows users to participate in events in the virtual space and create personalized experience content. The results also found that it was more effective in emotional regulation and relaxation.

Thanks to technological advancements, artificial intelligence is now considered one of the tools that can enhance human well-being (Garibay et al., 2023; Shneiderman, 2022). Scholars also suggest that technology can collaborate with people to improve adaptability, emotional quality, engagement, and connectivity (Riva et al., 2012; Calvo & Peters, 2014).

In current research trends, the ideal state of collaboration between humans and AI has been discussed as "Human-Centered AI (HCAI)." The relationship between humans and AI resembles a partnership or cooperation (Figure 3). Humans provide ideas to AI and evaluate the results. In particular, "Generative AI" can generate outputs based on the prompt from humans. Examples include the ChatGPT and image generation tools like Midjourney or Stable Diffusion, which are AI systems that the public can easily access.

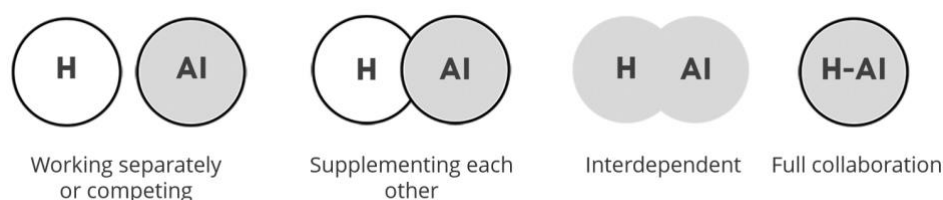


Figure 3: The levels of human-AI (H – AI) interactions (Sowa, et al., 2021)

This study explored the application of AI and mental health. We propose a new interactive model (Figure 4) that matches the advantages of generative AI in personalization, diversity, participation, and compatibility to meet users' emotional needs for the environment.

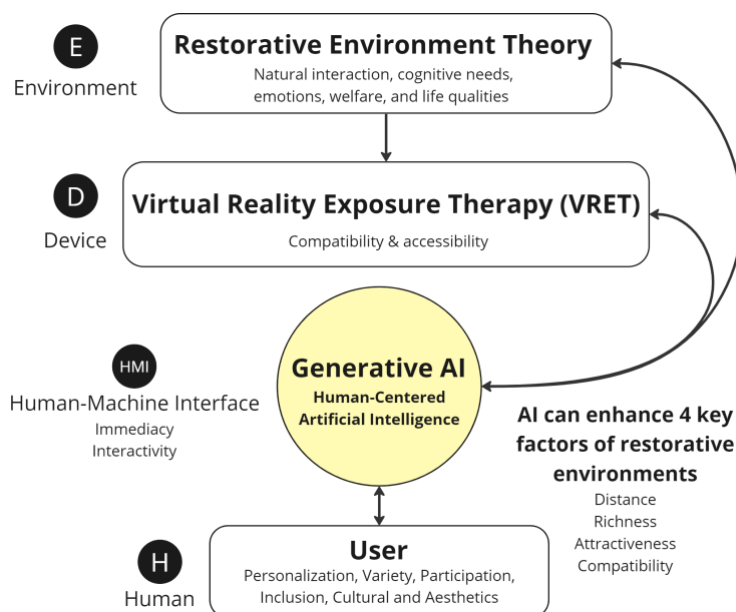


Figure 4: Potential Opportunities of Generative AI in VRET

Research Process and Method

The purposes of this research is to explore the potential of generative AI in virtual restorative environments, and propose the hardware and design considerations.

The experimental location was set in a spacious indoor area measuring 5 square meters, where the experiment was conducted for approximately one hour. The results were recorded using computer logging, paper questionnaires, and semi-structured interviews. The device used in this study was the Meta Quest Pro.

The participants recruited for the study were aged between 20 and 30 years old, and had experience in using or developing immersive devices. A total of 10 participants fully engaged in the entire experimental process.

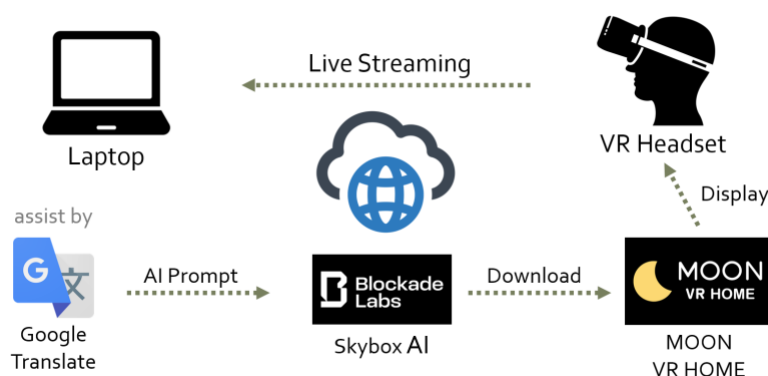


Figure 5: Experiment process

As shown in Figure 5, after providing an introduction to the participants, this study first engaged them in discussions about their stress relief methods and their ideal restorative environments. Subsequently, they were guided to use a generative AI platform called "Skybox AI" on a computer, which allowed them to create virtual environment images that matched their expectations through textual information. Since most of the participants were

not native English speakers, Google Translate was used during the experiment to help them determine the correct AI generation prompts.

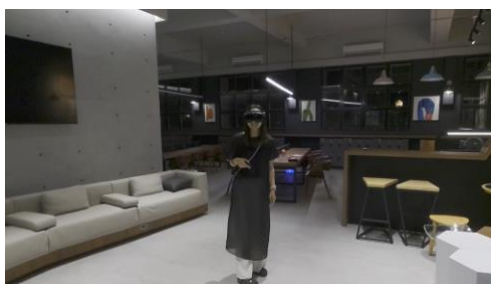


Figure 6: Experimental site



Figure 7: Virtual perspective

After getting the ideal images, they were downloaded to the VR device via the internet. The final experience was conducted using a player called "Moon VR Home", which also streamed the visuals to a computer. The experimental site and viewing screen are shown in Figure 6, 7.



Figure 8: Walking mode



Figure 9: Walking mode

The experience was divided into two modes: walking mode and static mode. In walking mode (Figure 8, 9), participants could see the real environment, walk through a portal, and enter the virtual space. This is similar to a Mixed Reality (MR) experience. In static mode, participants sat in a swivel office chair to view surround imagery, providing an experience similar to the common VR presentation methods seen today.

At the end of the experience, participants were allowed to use the VR device to watch YouTube videos featuring 360-degree content related to the themes generated by the AI earlier. This allowed them to experience pre-recorded VR video sensations. Finally, a series of semi-structured interviews were conducted to gather feedback.

Results and Discussion

Through the experience process of this study, participants each created virtual restorative environments that met their personal expectations. The following are scenarios created by several test subjects:



Figure 10: Experimental results

prompt:

white sand, teal ocean waves lapping. shells scattered on the beach. Warm light-dappled textures, subtle gradient sky, fluffy clouds. On a beach with coconut trees, there are many people playing jet skis and parasailing on the sea.



Figure 11: Experimental results

prompt:

Buried deep in the clouds of Jupiter, Callisto, Ganymede, Io and Eupola in the sky, 8K volume clouds, thick hazy atmosphere, lightning, autumn season, lying on many clouds, next to There are the sun, moon, stars, birds, etc., and the weak sunlight shines on the clouds

Most of the subjects expressed high expectations for the process of AI generation. Based on the combined content of interviews and questionnaire surveys, this study has summarized the following findings:

1. Feelings about AI-generated restorative environments:

Most people find the experience interesting, novel, and relaxing. AI prompts sometimes is difficult to produce the desired picture, but the uncertainty of the results brings unknown surprises, and also reduces stress.

2. Reasons to prefer walking mode

Most participants preferred the walking mode because it offers an interactive process of switching spaces. The design of portal effectively transitions spaces while maintaining a sense of the real world.

3. Reasons to prefer static mode

This mode is considered suitable for situations that do not require much movement. You can focus more on the presentation of the picture.

4. Visual problems

AI still lacks a clear understanding of the scale of objects relative to the viewer. In walking mode, accurately determining ground level presents a challenge. Additionally, issues with the sensation of floating and the scale of displays during the experience diminish the overall realism (Figure 12-17).



Figure 12:
AI generated content (AIGC)



Figure 13:
Mapping on sphere



Figure 14:
What you actually see



Figure 15: Too small&
floating

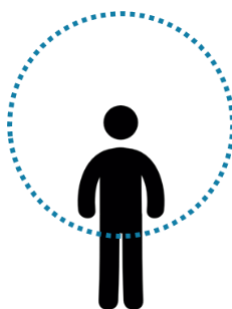


Figure 16: Too big



Figure 17: Fit size

5. AI prompts and generated content

The test subjects hope that the AI generation process can more accurately match their ideas, and it is recommended to provide templates or formulas to help users better interact with AI.



Figure 18: Reference template for AI prompt

6. Advantages of generative AI

Generative AI can be closer to the user's personal needs, and is more flexible than searching pre-recorded live videos.

Conclusion

In conclusion, generative AI offers more personalized content compared to live-action videos, which often can be predicted before viewing. Generative AI content surprises users with its novelty. Looking ahead, the future of AI technology should focus on enhancing interactivity, dynamic adjustment, and improving realism. This includes accurately understanding the scale of objects and generating corresponding sound effects. Furthermore, providing templates or formulas could reduce the cognitive load involved in human-AI interaction, thereby improving the overall relaxation experience.

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Contact email: ken.chang.1011@gmail.com

***Of Miracles, Healings, and Protection:
A Study of the Use of Habak in the Tri-City of Cebu***

Dave Tampus Pregoner, Cebu Normal University, Philippines

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This qualitative study investigates the uses of *habak* or amulet from the Tri-City of Cebu, Philippines. Anchored on Malinowski's Functionalist Theory and supported by Dorson's National Folklore Theory, this study specifically looks into Miracles, Healings, and Protection. It also examines the function of *habak* in the Philippine culture. Upon analysis, it was revealed that: (1) Three out of nine respondents from the Tri-City of Cebu have experienced miraculous events in using *habak* and such events are powered by their belief; (2) Two of the respondents revealed that they were healed by the *mananambal* or healer who used and gave them *habak* as one of its traditional healing practices; and, (3) Four respondents have similar accounts on how *habak* serves as their armor for protection, safety, and immunity. With this, it was found out that most locals from the Tri-City of Cebu use *habak* for protection which can be traced from their ancestors. More importantly, it was also revealed on the interviews that the respondents think it is important to continue the culture of using *habak* as it plays an important role in reinforcing its folkloric tradition and reshaping the Filipino identity.

Keywords: Habak, National Folklore Theory, Functionalist Theory, Philippine Culture, Tri-City of Cebu

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Introduction

According to Lubang (2006), the *anting-anting* or amulet has always been part of the old Filipino folk credo. It can be traced long before the Spanish colonization and Catholicism when the old Filipino natives still worship *anitos* and a host of different gods and other pagan elements. Throughout the Philippines, *anting-anting* is known to possess supernatural powers manifested through incantations and rituals of the *Mananambals* or local healers. Steeped in myth and religion, this folk belief links to the Filipino's soul of power and revolution.

The Filipino ancestors used to believe that amulets helped win the battles of some of our known revolutionaries and heroes. One of them is Macario Sakay, a famous Filipino hero who fought against the Spaniards and the Americans in the 1896 Philippine Revolution. According to historical records, it was found out that Sakay wore a vest that had religious images and Latin phrases to protect him from bullets during battles. It was said that Sakay believed in the *anting-anting* and its power of making him invincible (Pino, 2019).

Toledo et al. (2023) also discussed that some indigenous communities in the Philippines like the Ifugaos, Bontoc, Kalinga, and Gaddang have been wearing pendants and necklaces as amulets dating to as early as 2,000 years ago. Most of which were used to either enhance the virility of men in the tribe or use it as an object for ritual to perform a miraculous fertility among women.

Like the other regions in the country, the Visayan region also has a rich mythological makeup about the subject of amulets. These folkloric objects, specifically in the Tri-City of Cebu, are called *habak*. It is usually a handcrafted red pouch that contains tightly rolled Latin prayers called *Oracion*. In a heritage article from RAFI (2020), it was traced that the old Cebuano natives also relied on *habak* during revolutions where social crises, health emergencies, and power struggles were still prevalent. Although the existence of *habak* is mostly evident in the daily lives of the rural folk, the natives from the Tri-City of Cebu were no less than believers of such folk tradition as well.

The use of *Habak* and other folkloric traditions is a vital aspect of cultural heritage that brings insights into a community's history, beliefs, and practices. It is a rich source of knowledge in understanding a community's cultural identity that has been passed down from generation to generation. Although times have changed due to modernization, the *Habak* culture lives on and still figures heavily in the daily lives of Filipinos, more so among the Cebuanos.

At present, there are studies made regarding the history of *anting-anting* in the Philippines as a whole and how it traces back to the Filipino's mythological roots. However, there are only limited studies that explored the subject of amulets across the regions. No studies yet have explored the use of *habak* especially in the Tri-City of Cebu.

Given this premise, this study investigates the use of *Habak* in the Tri-City of Cebu. This study particularly looks into miracles, healings, and protection as its main functions.

Primarily, this folkloric research is anchored in the theory of Functionalism in anthropology. It asserts that every object in the tradition of folklore has its own function. Used in many cultural and anthropological studies, it claims that every item in folk belief and practice adheres to some important cultural, social, or psychological function. As Malinowski puts it,

everything that is part of human life and conditions must have a function. Everything about a specific culture has its own function (Porth et al., 2016).

In addition, since this study touches on the use of *habak* and its function in Philippine culture in the regions, the theory of functionalism will be supported with Richard Dorson's National Folklore Theory.

National Folklore Theory mainly focuses on the specific qualities of folklore in a particular country. The growth of folklore among different countries is a frequent relative companion of nationalism back in the nineteenth century. Scholars conducted several studies that revealed how folktales, folk songs, epics, legends, and myths revealed the romanticized perspectives of the natives on the deeds of their national heroes based on the traditional lore that have been passed across generations (Ben-Amos, 1989).

Based on Dorson's theory, big countries like America have found national pride and shaped its cultural identity according to its distinct folkloric traditions. It is for this reason why there is a need to use Dorson's theory as a support to this study to employ folklore and assert the cultural independence and identity of smaller countries like the Philippines (Crisol et al., 2016). Thus, by focusing on the use of *habak* in the Tri-City of Cebu and its function in Philippine culture, the study further shapes and reinforces the Filipino identity.

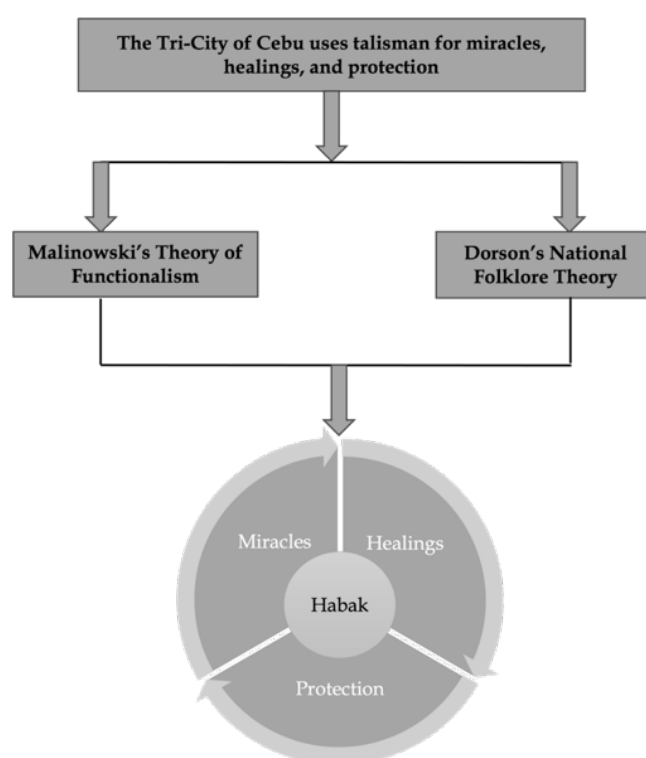


Figure 1: A Schematic Presentation of the Theoretical and Conceptual Framework of the Study

The qualitative research design and descriptive method are utilized in this study to gather narratives and testimonies from the respondents and generate hypotheses relevant to the analysis. It is through this approach and method that the experiences of the respondents are

delved deeper as these techniques allow the researcher to understand what is going on and what the implications are especially when things are not easily categorized.

On one hand, the primary sources of data are the three (3) locals from Lapu-Lapu City, three (3) from Mandaue City, and another three (3) from Cebu City, Philippines interviewed as key informants in this study. Regardless of age and gender, these natives from the Tri-City of Cebu are interviewed solely based on having owned and used *habak* first hand. All the natives involved in the study have lived in their respective cities in Cebu since birth, so their narratives authentically represent the local culture of the use of *habak* and how it has been part of their way of life.

Furthermore, the study follows three phases. At the beginning of the analysis, the researcher read and reviewed all the collected data to get the whole picture of the respondents' narratives. From there, the researcher took note and categorized the analysis into Phase 1. Miracles Analysis, Phase 2. Healings Analysis, and Phase 3. Protection Analysis.

Generally, the data collection process involves the crafting of interview questions using the Cebuano language, the first language of the informants. Recorded interviews are conducted and are presented in both structured and non-directive techniques. Interviews are then transcribed and quoted portions are translated into English to contextualize and categorize the responses of the informants appropriately.

Results and Discussion

Phase 1. Miracles Analysis

Data from the interviews revealed that three (3) out of the nine (9) respondents from the Tri-City of Cebu have experienced Miracles while using *habak*. All three respondents provided details to the occurrences of Miracles they experienced and shared how the conception of these events powered their belief in the ability of *habak* to cause miraculous events.

The first respondent, Delia (not her real name), a local resident from Mandaue City, reported how *habak* has helped her navigate her everyday life as a Person with Disability (PWD). Delia's *habak* is a necklace made of gemstone with a small image of Sto. Niño inside. Delia has been legally blind since birth and every day during her younger years, she shared how she would travel by foot going to school and back home with no one to guide her but the *habak* her mother gave. She said:

Gamit ni siya [habak] para nako kay PWD man ko, unya naay times nga dili ko ka kita unya molabang ko, unya naay mga sakyanan nga kusog kaayo og padagan unya inig abot nila sa akong tungod mokalit lang sila og brake, unya pirti nila kusoga magpadagan. Naa man gud to one time nga duha ka dagko nga damtrak ang nag-abot, unya duol nalang jud kaayo, kay maligsan na ko. Unya, mora sila og nahunong, mora og naay nag-ali between nako ug sa duha ka damtrak nga mora og wala sila malahos nga maligsan ko.

It is useful for me because I am a Person with Disability/PWD. There were times when I had to cross the roads, I couldn't see the cars running fast. When they were already near me, they would suddenly step the brake. There was a time when there were two dump trucks meeting from opposite directions, and just a little closer, they

would have hit me already. Somehow, they suddenly stopped. It was like there was something covering between me and the two dump trucks that they did not crash and that I wasn't hit. (Author's translation)

According to Delia, these events could not just be pure luck especially that these happened countless times. She shared that it was the work of *habak* that saved her one time after another.

The second respondent claimed that there was also a time she was miraculously saved by *habak* from a car accident. Terry (not her real name), also a local resident of Mandaue City, shared how she forgot to bring her *habak*, a small piece of bronze metal covered in red cloth, on her way to work which she believed resulted in the sudden crash of the car she was in. Although she forgot to bring it, she thought of calling the *habak*'s presence in her mind like summoning its power from afar. After she did it, to her surprise, she was the only passenger who didn't fall off from the car. She shared that she strongly felt the miraculous presence of *habak* during that accident.

On the other hand, the third respondent from Cebu City recounted the time when she almost died while delivering her third child and she believed that it was the *habak* that saved her and her baby. According to Gilda (not her real name):

Ato rang paghuman sa bagyong Odette nga nanganak ko sa akong ikatulong anak nga premature. Ug di pa tungod sa akong habak, labaw pa unta sa upat ka adlaw ko nakomatose. Pero tungod sa akong pagtuo sa habak, naluwas gyud ko. Nagtuo na gyod sila [pamilya] nga namatay ko kay wala may signal kay gikan lagi og bagyo. Ang ilang pagtuo nako tungod sa ilang last nga nakita nako, tuo gyod sila nga pildi na ko pero tungod sa habak ug sa pagsalig namo, milagrong naluwas gyod ko ug ang akong anak.

After the typhoon Odette, when I had to deliver my third child who was premature, if not for the *habak*, I would've been comatose for more than four days. But since I believe in the power of *habak*, I was saved. My family thought, based on how they last saw me, that I'll be dead by that time. But because of the *habak* and how we believed in it, it was a miracle that both I and my baby survived and were saved. (Author's translation)

All testimonies from the three respondents reveal the use of *habak* as an object that can cause miracles. Although the context of each narrative is different, but the way the respondents describe how such miraculous events occurred is similar. They all said that they could not explain how such miraculous events happened, but all they know is that they believe in the power of *habak* that is why it worked for them. As supported by the study of Broad, miracles are said to be feats of magic, and power lies in the act of belief, thereby claiming that "miracles are magic powered by belief" (Broad, 1916). Evidently, the miraculous narratives of the respondents in using the *habak* is a manifestation of their strong belief in its power.

Phase 2. Healings Analysis

It was revealed from the answers of another two (2) respondents from the Tri-City of Cebu that they use *habak* to heal sickness and other illnesses. According to them, some of their

habak came from the *mananambals* (healers) who used it as one of their traditional healing practices. According to a local resident from Cebu City, Marites (not her real name):

Motuo ko sa akong habak nga gihatag sa mananambal kay daghan ng nahitabo nga maoy nakatabang nako. Hilabi na sa akong gipamati sa lawas, makatabang og dako na akong habak nga maayo akong pamati mao ako ng dala-dalaon bisag asa pa ko moadto nga lugar. Aduna kaayoy tabang nga nahitabo sa akong kinabuhi kay og wala pa ko nahatagan og habak na naggamit nako, tingale sa pagkakaran wala na ko. Dako kaayo nga tabang sa akong kinabuhi nga naluwas ko sa habak.

I believe in *habak* which was given by a local healer because there were already a lot of things that happened that it helped me. Especially on my health, it really helped me feel better from my illnesses due to aging that is why I always carry it with me wherever I go. I put so much importance in *habak* because had I not given one, I would have been gone already. It is such a huge that *habak* saved my life. (Author's translation)

Marites shared that for many times, the *habak* that the mananambal gave her has always been her immediate remedy every time she feels sick. Recounting her near death experience, she said that had it not been because of the *habak*, she would have not recovered from her stroke paralysis years ago. She said it somehow makes her feel stronger every day.

On one hand, Mirasol (not her real name), also a local resident from Cebu, shared how *habak*, a bracelet made of multi-colored threads, healed her when she was allegedly possessed and spiritually sick during her pregnancy. In her interview, she said:

Katong buntis ko sa akong kamagwangan nga gi exorcism ko gamit ang habak. Dako jud og gikatabang ang habak kay tungod niato naulian jud ko sa akong gipamati nga wala naayo sa doktor nga nagpacheck-up mi. Angay gyod siya nga dili wagtangan kay dako gyod kaao siya og ikatabang sa mga tawo nga motuo niini ug hugot ang pagtuo niani nga habak nga dako jud siya og gikatabang sa katilingban.

I was pregnant with my eldest child when I had an exorcism using the *habak*. It was really a big help because through the *habak*, I was healed from an illness that even the doctors were not able to heal. We should not eradicate [the use of *habak*] because it is such a huge help for people who strongly believe in it. (Author's translation)

During the interview, Mirasol also shared how the *mananambal* performed some incantations when she used the *habak* during the exorcism. To her, such event in her life is something that she will never forget that is why until now, she strongly believes in *habak* and she continues to use it on a daily basis.

In one study, Crisol et al. (2016) explored the different practices of folk healing by *mananambals* as traditional practitioners of medicine. The study found that *mananambals* obtained their healing abilities through supernatural means. As such, they also used supernatural means in diagnosing and curing illnesses. One of which is the use of amulets and trinkets accompanied with incantations after asking for guidance from spirit guides. This study supports the narrative of the respondents in terms of how *habak* is used as a folk medicine in curing sickness and other illnesses. Witnessing how the traditional healers like

the *mananambals* perform spiritual incantations to heal them, the respondents' belief in the healing abilities of *habak* lingers.

Phase 3. Protection Analysis

Almost half of the respondents from the Tri-City of Cebu, four (4) out of nine (9) to be specific, shared how they use *habak* for protection. The interviews revealed how the experiences of the respondents are similar in terms of how *habak* as a folkloric object gives them immunity and protection against many forms of danger and evil.

According to Ronald (not his real name) who is a local resident from Lapu-Lapu City:

Naggamit ko og habak. Nakuha ni nako sa mananambal. Ako ning gigamit para proteksyon sa mga dautan. Nakatabang gyod siya [habak] og maayo kay simbako naay mga panghitabo o mga disgrasya, naa gyoy moprotekta sa imo labi na imong gisul-ob ang habak. Dapat jud tuohan gyod ni kay wala may mawala kon motuo ta. Ang atoa lang, pagsalig sa Ginoo, pagsalig sa atong kaugalingon, ug pag-ampo. Mao ra gyod.

I use *habak*. I got this from a local healer. I use this as my protection against the evil. This really helped me because God forbid, during accidents, I am always protected when I wear *habak*. We should believe in *habak* because we lose nothing if we do so. Only that, we also need to believe in God, believe in ourselves, and in prayers. That's all. (Author's translation)

Just like Ronald, the other respondents also shared how *habak* protected them in many instances. Florencio (not his real name), also a local resident from Lapu-Lapu City, recounted how his head got stuck at the side of the huge ship while travelling to Manila. He said he felt like something protected his head because he did not feel hurt after that. He believed it was the work of *habak*.

Furthermore, Merna (not her real name) who is local from Mandaue City also added her experience when she almost got stabbed by a robber in Pasil Market in Cebu. She said had it not been because of the bronze amulet she wore in her belly; the robber would have successfully stabbed her that time. She remembered how she felt when the *habak* was stabbed by the robber's knife instead of her stomach. She said it was as if the *habak* became her instant armor.

Sadik (not his real name), a local resident from Lapu-Lapu City, when asked about why it is important for him to use *habak*, shared:

Para sa akoo, kinahanglan gyod gihapon ta mogamit og habak kay proteksyon mana sa atong panginabuhi ug pagpuyo nato dire sa kalibutan.

For me, we need to use *habak* until now because it is our protection while making a living and it safeguards our existence in this world. (Author's translation)

Out of all the uses of *habak*, *Protection* is the most common response among the respondents why they continue to use *habak* to this day. In a study by Luque et al. (2019), it was revealed that amulets are a concrete reference of material protection against the evil. Whether

superstitious or not, amulets have more to do with protection as a form of prevention than of cure, thereby avoiding unnecessary remedies and treatments. This study supports how the use of *habak* as a means of protection has been embedded in the belief system of the people which aids to the human need for safety, security, and peace of mind. Like any other amulets, the use of *habak* can also be seen and treated the same way.

Conclusion

Based on the findings, it is concluded that the locals from the Tri-City of Cebu uses *habak* for Healings, Miracles, and Protection.

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Contact email: davepregoner3@gmail.com

***Conceptual Analysis of Personal God Portrayed in Rabindranath Tagore's
Song and Poetry***

Sanhita Ghosh, Lalbaba College, India

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The worshipping of personal God is a traditional religious practice in India since medieval period. The devotees use poetry, song dedicated to her/his God to worship the Almighty instead of the sacred Vedic hymns. This tradition was seen in songs (Bhajan) written by Mirabai, Tulsidas, Surdas and many more. This tradition was later carried on by various other Indian poet, lyricists and musicians. The great poet Rabindranath Tagore in his songs and poetries also followed the tradition of portrayal of his own personal concept of God. In this paper I would like to analyze Tagore's idea of personal God by analyzing the songs and poetries. Then I would like to do a comparative analysis between Tagore's idea of personal God and the concept of Brahman in Upanisads. In order to do so I would refer to the poems written in Gitanjali and some of the songs from Gitabitan written by Tagore and refer to some of the Shlokas (hymns) from Brihadaranyaka Upanisad, Kathopanisd and Chandogya Upanisad. In the conclusion I would try to show how Upanisadic Brahman has evolved into Tagore's personal God.

Keywords: Personal God, Upanisadic Brahman, Rabindranath Tagore's Song and Poetry

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Introduction

In Indian Culture and Society, spirituality has been the core essence of every philosophical, ethical and social discussion. Veda is considered to be the highest authority for the philosophical knowledge. Later *Smriti Shastras* like *Manu Samhita*, *Bhagavat Gita*, *Artha Shastra* and *Puranas* played a crucial role in supplementing the Vedic hymns but never questioned its authority. The metaphysical part of Veda is Upanishad which chiefly discuss about the Supreme God, *Brahman* and the creation of the Universe that is actually a manifestation of it. Later in the Medieval Period, the idea was fading away from the mind of the common mass because of the complexity and of the *Shastric* (Scholarly) language i.e. Sanskrit. Then the controlling role of spiritualism were somehow submerged in the material life. Then Bhakti and Sant traditions of India gave the spirituality a new life by trenching the water of worshipping of the personified, merciful God who is the epitome of eternal joy and bliss. The Upanishadic Nirguna Brahman who was beyond the grasp of the knowledge of an ordinary person became tied with a personal relationship (*Dasya*, *Sakhya*, *Vatsalya* and *Prema*) with the worshipper as Saguna Brahman. The Eternal Almighty God with no limit evolved in the form of Personal God who resides inside the heart of the worshipper with a more kin relationship than the Upanishadic Brahman.

The great poet, writer and scholar Rabindranath Tagore from Colonial Bengal being brought up in the cultural and religious evolutionary family was familiar with the ancient Vedic and Upanishadic literature as well as the medieval bhakti literature and Baul literature as well. The philosophy underneath these spiritual as well as metaphysical and mystical writings left a great impact on his mind. In his writings we can find an amalgamation of the Personal God as well as the Upanishadic Brahman. A picture portraying all the features of Brahman of Vedic period and Personal God of Bhakti tradition can be found in his poetries, songs and other writings. The God in Tagore's writing is very much present in the inner self of a man as well as it pervades all of the universe and beyond. He described the God as Advaita and Ananda (One and Pure Joy) which can be achieved by love. To quote Tagore's own word, "It is not the magnitude of extension but an intense quality of harmony which evokes in us the positive sense of the infinite in our joy, in our love. For advaitam is anandam; the infinite One is infinite Love..." [1]. In order to understand more of Tagore's hybrid view on God we have to understand the concept of God in Ancient Indian tradition and also the personal God in medieval mystic tradition.

Concept of God in Upanishad

In Upanishadic tradition God is considered to have two forms – Saguna (The one with attributes) and Nirguna (The One without attributes and thus inexplicable). Basically, there is only Nirguna Brahma or the God without attributes but the finite and impure mind of human cannot grasp the real nature of the Nirguna Brahman and thus get to know Him by imposing some attributes (like creator, destroyer and beholder of the universe) upon Him. Due to ignorance and impurity of mind which is caused by the attachment to the external material pleasures and being affected by the six eternal vices (*Kam*/ Desire, *Krodh*/ Anger, *Mad*/ *Ahankar*/ Self-pride, *Lobh*/Greed, *Moh*/ Attachment, *Matsarya*/ Jealousy) man refused to see the true nature of Brahma as all pervasive and fail to see himself as the manifestation of this One Supreme Being. Human finite tendencies deviate himself from the Supreme being by projecting himself to be different from Him (*Bheda Jnana*). Upanishadic preaching is to take the human from the prison of this finite life to the bliss of the infinite by teaching the mankind the knowledge that reveals the Infinite Supreme Brahman and make him (the man)

realize that he is no different from the Brahman. Thus, a man achieves the greatest goal (*Param Purushartha*) of his life 'Moksha' or liberation. *Upa + Ni + Sad*= The teaching that takes one to the realization of *Sad* or Reality or the Essential quality of all being.

In Upanishadic tradition Supreme God is described as *Brahman*. The nature of Brahman or the Supreme God has been described in the Upanishadic texts as what He is not or in terms of '*neti neti*'. Supreme God or Parabrahma does not have any attributes, does not possess any desires, cannot be described in terms of space and time. The Supreme God or Parabrahma is described in various Upanishadic texts as immanent as well as transcendent. For example, in Chandogya Upanishad it is said that;

'Sarvam khalvidam Brahma tajjalaniti shanta upasit' – [2. Chandogya Upanishad (3.14)]

Translation: Everything is Brahman Himself for everything comes from Him, sustained in Him and goes back to Him. The Universe is the manifestation of Him.

In this verse Brahman or the Supreme God is described as Someone who resides in every living and non-living creature of the universe but He is also someone who is also transcendent of this world. In Chandogya Upanishad the Mahavakya or the Main Verse said about the Brahman that;

'Tattvamasi' - [3. Chandogya Upanishad (6.9.4)]

Translation: Thou are He. In Brhadaranyak Upanishad it has again said that

'Soham' - [4. Brhadaranyak Upanishad (5.15.2)]

Translation: Thou are He.

These two verses mean that the soul or atman that resides inside the body of every living being is Brahman Himself. Here it is worth mentioning that in Upanishadic text even five elements are assigned a living form of Devata and considered to have life in that way. Fire, Water, Air, subjectify as *Agni*, *Varun* and *Pavan* respectively and are thus considered to be controlled by those gods. The Supreme Being is considerably wider than them but yet the ultimate source of all of them.

Now the question may arise that where does such vivid and wide Brahman reside? As it is said several times that according to Upanishadic philosophy Brahman is immanent as well as transcendent of the Universe, so Brahman resides everywhere. Analogically Upanishadic text describes that Brahman resides in the Lotus throne of the heart of human being.

Concept of God in Medieval Bhakti Tradition: Personal God and Concept of Bhakti

In ancient Hindu religious system, the right to worship the Almighty was limited to the upper caste people only. Manu smriti has clearly said that women and *Shudras* (the lowest in the caste hierarchy of Hinduism) have no right to worship the Almighty or to have the right to know/achieve the knowledge of the Absolute or *Brahma jnana*. But through bhakti movement the age-old tradition moulds the Almighty God into everyone's beloved personal God. Relation to the God has become interpersonal relationship like a mother to her child or a friend to a friend and becomes much more cognizable to the common mass of people.

Upanishadic Brahman thus evolved into the Personal God who is a beloved of the worshipper in Bhakti Philosophy. Although Bhakti tradition did not reject the essential nature of Brahman. Nature of Brahman was immanent and transcendent as explained in Upanishadic text. But the magnificent Supreme Brahman was not conceived as awful Almighty but the merciful beloved Almighty who love and being loved unconditionally.

Bhakti philosophy denied the fact that Shudras or the lower caste does not have any right to get Liberation. They have also rejected the ideals of gender discrimination in order to achieve the love of God. All they wanted is to achieve the love of God and unlike the Upanishadic Moksha that refers to *Sayujya Mukti* or the liberation through being unified with God. Rather the Bhakti philosophers have always proposed for the *Samipyta Mukti* or the liberation in the direct servitude of God while maintaining the duality. In Bhakti philosophy God is portrayed as someone very keen and beloved to the devotee. The ultimate devotion assorted with love and self-surrender is the core idea of Bhakti tradition and the devotees are preached to be the epitome of such self-surrender. For example, in medieval Bengal Shri Chaitanya Deva was the bhakti saint and main preacher of Gaudiya Vaishnava tradition who was considered to be practicing such self-surrender which later made Him forget his own identity as an individual, He considered and mentioned Himself as a Krishna Devotee only.

Concept of God in Tagore's Song and Poetry (Gitanjali and Gitabitan)

I would like to quote some of the songs and poetries of Rabindranath Tagore and then make a comparative analysis of Tagore's God with Upanishadic God as well as Personal God first and then proceed to elucidate the idea of God in Tagore's own writing which is a conglomeration of both Upanishadic Brahman and Personal Merciful God.

In the following poems that Tagore has written in **Gitanjali** reflects the idea of Upanishadic Brahman.

1. *"Thou hast made me endless, such is thy pleasure. This frail vessel thou emptiest again and again and fillest it ever with fresh life."* [5]

2. *"Simar Majhe Asim Tumi Bajao Apon Sur" / O Boundless Within bounds you play your own tunes* [6]

In this poem Rabindranath Tagore has beautifully explained the Infinite Brahman that resides in the heart of a devotee and thus making the devotee endless. The body (frail vessel) of the devotee has been reincarnated endless times and has been filled again with the infinite soul which is complete as they are filled with divine consciousness or *Purna*. In the beginning verse hailing peace of *Brihadaranyak Upanishad* it is said that;

*"Om purnamadah purnamidam purnat purnamudachyate
Purnasya purnamadaya purnamebabashisyate."*

[7. Shantipath, Brihadaranyak Upanishad]

Translation: This or that everything in this world is *purna* (filled with divine consciousness). If we take away infinity from infinity then only infinity remains which is complete and endless in nature.

Then there is another poem in Gitanjanli which is as follows:

3. *“Light, oh where is the light? Kindle it with the burning fire of desire!”* [8]

Explanation: In Vedantic explanation of Upanishadic text, the brahman is described as self-illuminated or *swaprakash* in nature like light. Here, in this poem Tagore has also mentioned that illuminating nature of God or Brahman while searching for Him. Tagore has also mentioned to burn all his earthly desires in order to achieve the Supreme God which is also a popular Vedic teaching. Brahman is also said to be covered by the veil of Maya or Illusion of earthly pleasures and that illusion refrains us from knowing the true nature of Brahman. This nature of Upanishadic God is portrayed in the following poem of Gitanjali.

4. *“That I should make much of myself and turn it on all sides, thus casting coloured shadows on thy radiance – such is thy maya.”* [9]

While some of the poems have portrayed God as the omnipotent, omniscient, infinite and vivid as Upanishadic God, some of Tagore’s poem in Gitanjali has also reflected the Personal God who is merciful, loving, loves and being loved unconditionally by His devotees.

5. *“Leave this chanting and singing and telling of beads! Whom dost thou worship in this lonely dark corner of a temple with doors all shut?”*

Open thine eyes and see thy God is not before thee!

He is there where the tiller is tilling the hard ground and where the path maker is breaking stones. He is with them in sun and in shower; and his garment is covered with dust. Put off thy holy mantle and even like him come down the dusty soil.” [10]

In this poem we can see that the God does not discriminate between the upper caste person like a priest and a lower caste person like a labor. He does not discriminate to share His love and care. He loves equally all His devotees irrespective of their caste, gender and class.

6. *“Deliverance is not for me in renunciation. I feel the embrace of freedom in a thousand bond of delight.”* [11]

Here in this poem we can see that Tagore is seeking the liberation while maintaining the duality like a Bhakti Saint who wants samipyamukti. He seeks liberation in the bondage of relationship with the almighty and His creation.

7. *“I know thee as my God and stand apart- I do not know thee as my own and come closer. I know thee as my father and bow before thy feet – I do not grasp thy hand as my friends.”* [12]

In this poem Tagore clearly establish a personal relationship with the God as a father and Son which is a demarcating feature of Bhakti philosophy.

In the songs written in **Gitanjali**, Tagore has also portrayed the features of both Upanishadic Brahman and of Personal beloved God. In the following writings the features of Upanishadic Brahman can be found.

1. *“Satya Mangala Premamaya tumi, Dhrubajyoti tumi andhokare”*

Translation: You are the Truth, the Blissful and the Loving, Starlight in the darkness”
[13. Gitabitan Song Translated by Debjani Bose from www.geetabitan.com]

2. “*Anandaloke mangalaloke birajo satyasundara*”

Translation: You are honourably present with the halo at the blissful world. [14. Gitabitan Song translated by Anjan Ganguly, collected from www.geetabitan.com]

In the abovementioned two songs, Rabindranath Tagore has described God by His attributes. Tagore has mentioned that God is *Satya* (True or Real in nature), *Mangala* (that which stands for Good) and *Premamaya* (Full of love and mercy). In the later song Tagore has described God residing in the *Anandalok* or in the abode of Eternal Joy. In Upanishadic texts also we find that God has the following attributes: He is Real, Pure Consciousness and Pure Joy (*sacchidanandaswarupa*).

3. “*Shudhu tomar bani noy go he bandhu he priyo,
Majhe majhe prane tomar parashkhani dio*”

Translation: O my friend dear, not your words only. Extend your delicate touch towards me. [15. Gitabitan Song translated by Anjan Ganguly, collected from www.geetabitan.com]

Tagore has said through this song that he does not only want to hear the words that is spoken by the Almighty, but wants to realize His true nature by his heart with reverence. In Vedantic explanation of Upanishadic Brahman, Brahman is also described as someone who is conceived by the senses and perceived by meditation (*atma ba are drashtabya shrotabya nididhyasitabya*).

In the following songs we can find the portrayal of the **Personal God** having similar feature with Bhakti tradition.

4. “*He sakha mama hridaye raho*”

Translation: Be within my heart O my friend [16. Gitabitan Song translated by Anjan Ganguly, collected from www.geetabitan.com]

In this poem Tagore has tried to establish the interpersonal relationship with the Supreme Divinity.

5. “*Kar milana chao birohi*”

Whom do you desire to unite with, O stranger.

Where in the earthly forest you search for Him,....

Translation: Look into the splendour of the heart, the Lotus feet exists...[17. Gitabitan Song translated by Anjan Ganguly, collected from www.geetabitan.com]

In Bhakti tradition, the phase of life when the devotee knows the nature of Almighty but yet to feel His graceful mercy by himself (the devotee), is known as *Biroho* or the distant phase from the lovable. Tagore has portrayed that phase in this song very beautifully.

6. “*Dhaay jeno mor sakal bhalobasa prabhu tomar pane*”

Translation: May all my love flow O Lord, toward you, you only. [18. translated by Ratna De, collected from www.geetabitan.com]

Here in this song, we can find the feature of self-surrender or utmost devotion towards the God has been portrayed. This is also an essential part of Bhakti Philosophy as it has discussed in the earlier section.

Conclusion

In Rabindranath Tagore's writing we can found that God according to him is transcendent with eternal glory as described in the ancient Upanishadic and other Vedic texts yet someone very kin to him. Tagore's God is formless Brahman being manifested in every form in the universe. He resides in the heart of a worshipper as pure Joy and can be achieved only through unconditional love. It is a beautiful blend of both Upanishadic philosophy and Bhakti Philosophy. God in Tagore's philosophy is someone who resides inside the heart of the devotee, as well as in the mother nature outside where the devotee resides. God is inside as well as outside of Man. Thus, in Tagore's idea God is vivid, infinite, complete and does not possess any earthly desire but what HE truly seeks is the pure love in form of devotion from His own creation. He loves and at the same time wants to be loved. Tagore's God is epitome of grace and Beautiful in its ultimate sense.

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Contact email: sanhi.ghosh@gmail.com

The Suicidal Reading of Sylvia Plath's Selected Works Under the Theoretical Frame Work of Durkheim's Suicide Theory

Josit Mariya, Indian Institute of Information Technology, India

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This study delves into a sociological analysis of Sylvia Plath's selected works, through the theoretical framework of Émile Durkheim's Suicide theory. Durkheim, a renowned French sociologist, proposed that suicide is influenced by social factors, with varying rates attributed to differences in social solidarity. Plath, an iconic American poet, is known for her confessional style, vividly expressing her struggles with mental illness, depression, and suicidal tendencies. Examining Durkheim's three types of suicide—egoistic, altruistic, and anomic—the study identifies Plath's suicidal tendencies as egoistic. Plath's introspective poetries, reflects a sense of detachment and alienation, of isolation, disillusionment with societal norms, and a desire for escape. The analysis incorporates Durkheim's theories on social disruption leading to suicide, emphasizing the impact of societal changes on individual well-being. The research contextualizes Plath's life, including her tumultuous marriage, family breakdown, and mental health challenges, as contributing factors to her egoistic suicide tendencies. Plath's poignant portrayal of her struggles in her poetry serves as a lens to understand the disintegration of social bonds, as theorized by Durkheim. In conclusion, this study offers a comprehensive examination of Sylvia Plath's selected works within the framework of Durkheim's Suicide theory, shedding light on the sociological dimensions of her struggles and the underlying societal factors influencing her egoistic suicide tendencies. The research contributes to the interdisciplinary understanding of literature and sociology, unravelling the intricate interplay between individual experiences and societal structures.

Keywords: Suicide-Egoistic, Altruistic and Anomic, Alienation, Social Bonds, Society

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Introduction

Émile Durkheim (1858-1917), a famous French sociologist, studied suicide and found it less common in strongly connected societies. He believed people with weak social ties were more likely to take their own lives. This suggests social factors, not just personal choices, can influence suicide.

Victoria Lucas, widely known Sylvia Plath (1932-1963), a well-known American poet, wrote about feeling isolated and wanting to harm herself. These themes, explored in poems like "Daddy" and "Lady Lazarus" and her novel "The Bell Jar," likely stemmed from her personal struggles and the experiences of many women in 1950s America. Victoria Lucas, widely known.

What is Suicide?

Suicide is an indication of disorganisation of both individual and society. Increasing number of suicides clearly indicates something wrong somewhere in the social system of the concerned society. Durkheim has studied this problem at some length.

Durkheim's study of suicide begins with a definition of the phenomenon. He then proceeds to refute the earlier interpretations of suicide. According to Durkheim, suicide refers to "every case of death resulting directly or indirectly from a positive or negative death performed by the victim himself and which strives to produce this result."

It is clear from the definition of Durkheim that suicide is a conscious act and the person concerned is fully aware of its consequences. The person who shoots himself to death, or drinks severe poison, or jumps down from 10th storey of the building, for example, is fully aware of the consequences of such act.

Suicide is a highly individual act, yet the motives for a suicide can be fully understood only by reference to the social context in which it occurs. In his attempts to substantiate this fact he came to know that the incidence of suicide varied from one social group or set up to another and did so in a consistent manner over the years. People in large cities were likely to commit suicide than people in small communities; people living alone were more likely to commit suicide than people living in families. People with fragile or weaker ties to their community are more likely to take their own lives than people who have stronger ties.

Durkheim has established the view that there are no societies in which suicide does not occur. It means suicide may be considered a "normal", that is, a regular, occurrence. He also came to the conclusion that different rates of suicide are the consequences of differences in degree and type of social solidarity. Suicide is a kind of index to decay in social solidarity.

Three Types of Suicide

Based on analysis of a mass of data gathered by him on many societies and cultures. Durkheim identified three basic types of suicides. They are as follows:

1. Egoistic Suicide
2. Altruistic Suicide
3. Anomic Suicide

According to Durkheim, all these occur as an expression of group breakdown of some kind or the other. These three types of suicide reveal different types of relations between the actor and his society.

Egoistic Suicide

Egoistic suicide is a product of relatively weak group integration. It takes place as a result of the extreme loneliness and also out of excess individualism. When men become “detached from society”, and when the bonds that previously had tied them to their fellow beings become loose- they are more prone to egoistic suicide.

According to Durkheim, egoistic suicides are committed by those individuals who have the tendency to shut themselves up within themselves. Such individuals feel affronted, hurt and ignored. Introverted traits gain upper hand in them. Egoistic persons are aloof and cut off from the mainstream of society and do not take full interest in social matters. Such persons get alienated and find it difficult to cope with social alienation and feel impelled to commit suicide.

Durkheim’s belief is that lack of integration of the individuals into the social group is the main cause for egoistic suicide. Durkheim studied varying degrees of integration of individuals into their religion, family, political and national communities. Durkheim generalised that the lack of integration is the main cause of egoistic suicide.

Altruistic Suicide

This kind of suicide takes place in the form of a sacrifice in which an individual ends his life by heroic means so as to promote a cause or an ideal which is very dear to him. It results from the over-integration of the individual into his group. In simple words, altruistic suicide is taking off one’s own life for the sake of a cause. It means that even high level of social solidarity induces suicide. Examples:

- In some primitive societies and in modern armies such suicide takes place.
- Japanese sometimes illustrate this type of suicide. They call it “Harakiri”. In this practice of hara-kiri, some Japanese go to the extent of taking off their lives for the sake of the larger social unity. They consider that self-destruction would prevent the breakdown of social unity.
- The practice of “sati” which was once in practice in India, is another example of this kind.
- The self-immolation by Buddhist monks, self-destruction in Nirvana under Brahmanical influence as found in the case of ancient Hindu sages represent other variants of altruistic suicide.

Wherever altruistic suicide is prevalent, man is always ready to sacrifice his life for a great cause, principle, ideal or value.

Anomic Suicide

The breakdown of social norms and sudden changes that are characteristic of modern times, encourage anomic suicide. When the collective conscience weakens, men fall victim to anomic suicide. “Without the social backing to which one is accustomed, life is judged to be not worth continuing.”

Anomic suicide is the type that follows catastrophic social changes. Social life all around seems to go piecemeal. According to Durkheim, at times when social relations get disturbed both personal and social ethics become the casualties. Values of life come down and outlook of some persons changes radically. There are then certain dangerous developments in the society. A sudden change has its vibrations both in social life and social relationship, which paves way for suicide. If the change is sudden, adjustment becomes difficult and those who do not get adjusted to changes commit suicide. It is this social disruption which leads to suicide. According to Durkheim, not only economic disaster and industrial crisis but even sudden economic prosperity can cause disruption and deregulation and finally suicide.

These three kinds of suicide understood as social types also correspond approximately to psychological types. "Egoistic suicide tends to be characterised by a kind of apathy, an absence of attachment to life; altruistic suicide, by a state of energy and passion; anomic suicide is characterised by a state of irritation or disgust."

Sylvia Plath and Her Poems

Sylvia Plath's poetry delves into the darkness of mental illness, depression, and despair. Her haunting verses often reflect on mortality and the passage of time. Personal struggles added to this bleak outlook. The breakdown of her marriage and the responsibility of raising two young children alone intensified her depression. Medications prescribed to help her cope may have had unintended consequences, potentially amplifying suicidal thoughts according to Aurelia Plath, Sylvia's mother (Yankowitz).

Plath's prior suicide attempt suggests a fragile state of mind. Perhaps a flicker of hope remained that someone would intervene again. Plath's poems that show the final act might have been a desperate cry for help, evidenced by clues left behind. Ultimately, her true intentions remain a mystery. However, by examining both the events of her life and the raw emotions laid bare in her writing, we gain a deeper understanding of the forces that shaped her tragic end.

***Lady Lazarus*- The Resilience in Despair**

This poem explores Plath's resilience amidst mental anguish and her struggle for self-preservation. "Lady Lazarus," the speaker confronts her battles with mental illness, depression, and recurrent suicidal tendencies. The three-part structure delves into different phases of her struggle with death and rebirth, offering a complex exploration of life's challenges, identity, and the pursuit of existence amidst suffering.

The poem also critiques societal attitudes towards suffering, presenting the speaker's struggles as a performance for an audience eager to witness her pain. Plath, drawing on her own life experiences, suggests a connection between personal suffering and artistic expression, exploring the challenging balance between authenticity and the exploitation of one's pain for public consumption.

Ultimately, *Lady Lazarus* serves as a powerful reflection on the complexities of life, death, and the relentless pursuit of identity amid mental anguish. Plath's visceral language and unflinching exploration of her own struggles contribute to a haunting and thought-provoking poetic narrative.

The Moon and the Yew Tree- Desolate Reflections

This one delves into the desolation and introspection portrayed in the poem, reflecting Plath's inner turmoil. In *The Moon and the Yew Tree*, the speaker describes a desolate and eerie scene where she longs for serenity and comfort but finds herself isolated and detached from her surroundings. The moon, which she initially hopes will offer solace, is described as indifferent, and the church, a symbol of religious comfort, is filled with rigid and lifeless figures. The poem conveys the speaker's sense of isolation, disillusionment with religion, and her search for meaning and comfort in a world that seems cold and lifeless.

Poppies in July- A Hunting Representation

Examines the haunting imagery and emotional intensity depicting Plath's inner turmoil and anguish. In *Poppies in July*, the speaker encounters poppies, typically associated with both beauty and death. The poem explores the vivid redness of the flowers and draws a connection between their appearance and the speaker's intense inner turmoil.

In *Poppies in July*, Sylvia Plath employs vibrant and conflicting imagery to convey the speaker's inner turmoil and the yearning for some form of escape from emotional pain. The juxtaposition of beauty and suffering serves as a potent representation of the intricate nature of human emotions and the ways individuals navigate internal struggles.

Tulips

In *Tulips*, the speaker reflects on a hospital room where she lies recovering from an unspecified condition. She describes her detachment from her surroundings, her family, and even her own identity. The red tulips she receives contrast sharply with the sterile environment, and she sees them as intrusive and disturbing. The poem explores the speaker's struggle with her desire for numbness and detachment from life, even as she acknowledges the longing for life's vibrancy.

Edge- Confrontation With Mortality

Analyzes the confrontation with mortality and the relentless pursuit of existence amidst suffering. The title *Edge* suggests that the woman has reached a critical point, possibly a breaking point, in her life where she must confront the consequences of conforming to societal norms. She has reached the edge of her existence, and the poem raises questions about the sacrifices she's made in the process.

Overall, *Edge* by Sylvia Plath is a poignant exploration of the pressures and expectations placed on women in society, particularly in the context of motherhood. It reflects the emotional toll that conforming to these expectations can take, leading to a sense of personal loss and the sacrifice of one's individuality. Plath's own experiences and struggles with mental health are often woven into her work, making her poetry deeply personal and emotionally charged.

Conclusion

Analysing all the mentioned works of Sylvia Plath, we understand that her suicide is egoistic suicide. suicides are committed by those individuals who have the tendency to shut

themselves up within themselves. Such individuals feel affronted, hurt and ignored. Introverted traits gain upper hand in them. Egoistic persons are aloof and cut off from the mainstream of society and do not take full interest in social matters. Such persons get alienated and find it difficult to cope with social alienation and feel impelled to commit suicide.

Durkheim's belief is that lack of integration of the individuals into the social group is the main cause for egoistic suicide. Durkheim studied varying degrees of integration of individuals into their religion, family, political and national communities. Durkheim generalised that the lack of integration is the main cause of egoistic suicide.

The tragic suicide of Sylvia Plath in 1963 left the literary world reeling. Her raw and accusatory poetry became a lens through which her life was scrutinized. Plath's portrayal of a strong yet victimized self-pushed critics to explore how her experiences informed her work. This focus was justified, as Plath readily shared her personal struggles in her writing. Underlying these struggles was a documented battle with mental illness, including depression, suicidal thoughts, and therapy with electroconvulsive shock therapy. Her published works and journals offer a brutally honest portrayal of her inner world. Viewed through the lens of Durkheim's theory, Plath's suicide can be seen as a response to societal pressures. Unable to reconcile the tensions and isolation she felt, Plath may have succumbed to what Durkheim called "egoistic suicide," where societal expectations and a lack of social connection overwhelm the individual.

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Social, Economic, and Technological Barriers of the Music Industry in Cebu Province

Antoniette M. Almaden, Cebu Institute of Technology University, Philippines
Alex P. Ocampo, Cebu Institute of Technology University, Philippines
Alexander Franco A. Delantar, Cebu Institute of Technology University, Philippines

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This research scrutinized the multifaceted challenges that confronted music core groups in Cebu Province, investigating social, economic, and technological barriers through the comprehensive framework of planning, organizing, leading, and controlling management. The primary aim was to propose a forward-thinking management framework that would foster sustainable growth within the music industry. The findings, which employed a qualitative multiple-case study methodology, shed light on the complex landscape that societal, economic, and technological challenges shaped. Coping mechanisms, vital tools for resilience, were diverse and included faith, self-care, diversion, economic negotiation skills, continuous learning, and community involvement. The Amplify Cebu Music Management Framework emerged as a strategic response, grounded in the classic management functions. TechHarmony Integration, which aimed to seamlessly integrate technology into the industry, served as a complement to key components like Harmony Vision, Melodic Collaboration, Innovation Crescendo, and Rhythmic Governance. Tailored interventions encompassed leadership development, modern promotion strategies, artist well-being, creative hubs, education, and government support. Recognizing limitations in role selection, the study encouraged future research to explore the perspectives and challenges of various industry roles beyond creators, artists, and organizations. Implications extended to industry stakeholders, policymakers, educators, and practitioners, urging inclusive strategies that considered the diverse range of roles within the music industry. Beyond Cebu, this study provided insights applicable globally, contributing to the development of inclusive, effective frameworks. In conclusion, the research offered a comprehensive roadmap for overcoming barriers, fostering resilience, and contributing to a vibrant and sustainable music industry in Cebu, aligning the local music scene with global audiences.

Keywords: Classical Management Theory, Barriers, Coping Mechanisms, Management Framework, Music Industry

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Introduction

Adeleke (2009) defines the music industry as the professional endeavors involving creating, endorsing, and commercializing music for amusement and various objectives. Brabec and Brabec (2011) presented a broader interpretation, defining it as a domain within the economy and social sphere, where enterprises and individuals prosper by producing and marketing musical compositions. These definitions highlight the complexity of the music business, covering activities such as producing, distributing, and selling recorded music in various formats as well as marketing live performances. This study also explores diverse revenue streams within the music industry, including concerts, merchandise sales, physical and digital music sales, royalties, and other sources (Pushmin, 2023). These revenue streams contribute to the long-term viability and expansion of the industry. However, the industry is undergoing digitalization, accelerated by the COVID-19 pandemic, leading to shifts in consumer behavior and operational dynamics (Denk et al., 2022). Technological advancements in artificial intelligence and digital platforms have transformed the music ecosystem, presenting opportunities and challenges (Bernstein, 2004). While social media platforms have become prominent in entertainment, traditional brick-and-mortar businesses specializing in music sales have declined.

Moreover, the concentration of the Korean music industry in Seoul poses a challenge for artists from provinces to relocate to cities to achieve success, thereby diminishing local artistic communities (Farooqi, 2021). This study recognizes the need for musicians to adapt to these changes, acquire necessary skills, and navigate the evolving market (Wahl & Ellingson, 2018). Despite obstacles, such as limited commercial acumen, funding, and competition, innovative solutions and support networks are emerging to aid musicians (Jeong & Choi, 2017). Effective management practices, including planning, organizing, leading, and controlling (POLC), are essential for navigating the complexities of the music industry (Wyszomirski & Chang, 2017). These functions enable strategic decision-making, resource allocation, and goal achievement. This study acknowledges the influence of technological, social, and economic factors on the music industry's development (Cwynar & Fauteux, 2020). By understanding these frameworks and employing POLC management concepts, stakeholders can drive positive change, promote local-global relationships, and ensure the long-term viability of the industry (Tigre Moura & Maw, 2021).

Drawing on the researcher's background as a professional industrial engineer and singer in Cebu Province, this study aimed to enhance the music industry in Cebu Province by comprehensively analyzing and implementing management strategies to overcome barriers, optimize facilitative practices, develop coping mechanisms, establish a robust management framework, and implement specific recommendations to support the growth and sustainability of the local music industry. By collaborating with industry stakeholders and policymakers, this study seeks to address social, economic, and technological barriers, fostering the industry's development, cultural vitality, and economic resilience in alignment with Republic Act 11904 of 2022.

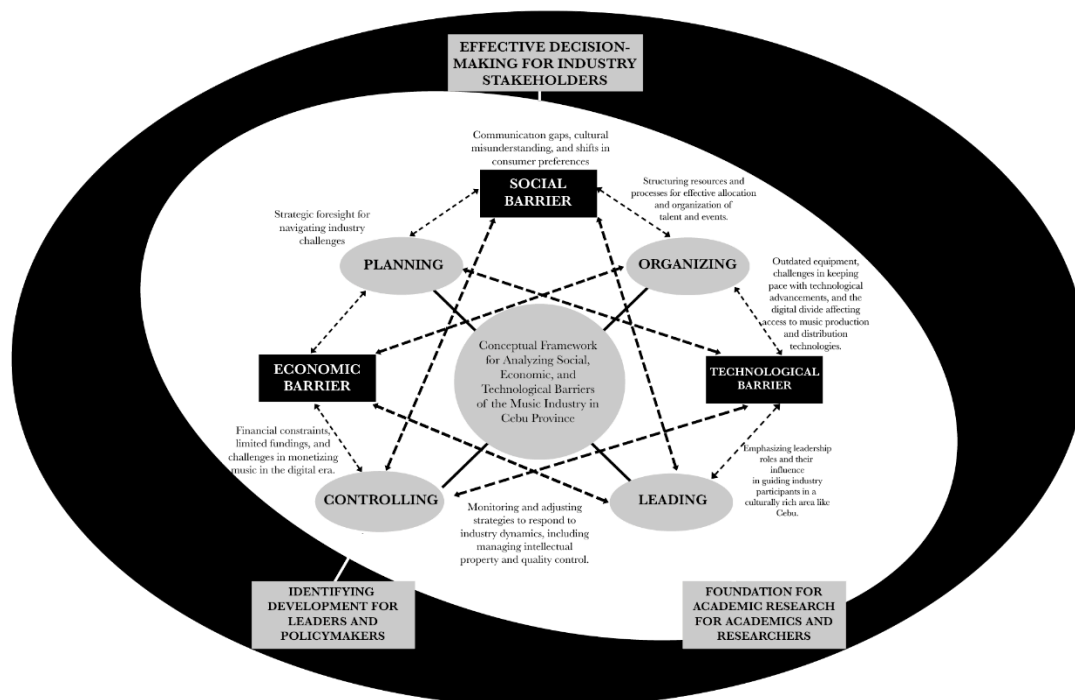


Figure 1: Conceptual Framework for Analyzing Social, Economic, and Technological Barriers of the Music Industry in Cebu Province
Source: Author's developed conceptual framework

As shown in Figure 1, this study delves into the symbolic representation of the whole note in music to address the multifaceted challenges facing the music industry in Cebu province, encompassing social, economic, and technological barriers, through the lens of management principles such as planning, organizing, leading, and controlling. Just as the whole note comprises various musical elements, such as pitch, rhythm, and length, the collaboration of music creators, artists, and organizations within the industrial ecosystem contributes to its harmony and continuity. In this conceptual framework, planning involves identifying and integrating solutions to social, economic, and technological disparities akin to the comprehensive nature of the entire note. Organizing represents the connectivity depicted in the note: coordinating efforts to facilitate collaboration, addressing technological gaps, and fostering social support networks. Leadership, symbolized by the unbroken structure of the whole note, requires uniting diverse stakeholders towards common goals, driving policy adjustments, fostering a community, and leading technical advancements. Control mechanisms ensure the ongoing assessment and modification of implemented solutions to maintain industry cohesion amid ongoing challenges, mirror continuous control, and preserve harmony within the sector. The symbolic portrayal of the whole note emphasizes the need for a holistic approach to address the industry's complexities, providing valuable insights for stakeholders. Artists, professionals, industry executives, and governments can use this framework to navigate challenges effectively and foster collaboration, innovation, and targeted support. For students and researchers, the note serves as a metaphor for the necessity of thorough scholarly research and academic contributions to understand and address industry challenges. Academics are crucial in promoting industry harmony through insights and empirical data, thereby impacting legislation and industry practices. Overall, the paradigm underscores the importance of unity, collaboration, and cooperative efforts among diverse stakeholders to address challenges and advance the long-term growth of the music industry in Cebu Province.

Methods

This study used a qualitative multiple-case approach, facilitated by Delve's qualitative data analysis program, to explore the significance of Cebu Province in the Philippine music industry. It emphasizes the province's diverse musical traditions and cultural influence. Key informants in the music industry, including music producers, artist managers, singers, bands, musicians, governmental entities, and record labels, provided insights through purposive sampling and face-to-face interviews, aiming for a sample size of six to twelve key informants to achieve saturation, as recommended by Clarke and Braun (2013), Fugard and Potts (2015), and Guest et al. (2006, 2020). This approach ensures rigorous analysis and yields significant results. The validation procedure of this study incorporated the expertise of a research specialist, communications professional, and a music industry expert. The collective endeavor produced a comprehensive and diverse interview guide that would generate valuable insights into the primary challenges and concerns of the music industry.

Data Type	Music Groups (Key Informants)	Core	Sample Size (n)	Description	Identifiers
Interviews	Music (MC)	Creators	8	music producer (MP)	CMP ₁ , CMP ₂ , CMP ₃ , CMP ₄ , and CMP ₅
				artist manager (AM)	CAM ₁ , CAM ₂ , CAM ₃
				singer (S)	AS ₁ , AS ₂ , AS ₃ , and AS ₄
	Artists (A)		12	bands (B)	AB ₁ , AB ₂ , AB ₃ , AB ₄
				musician (M)	AM ₁ , AM ₂ , AM ₃ , AM ₄
	Organizations (O)		5	government (G)	OG ₁
				record label (RL)	ORL ₁ , ORL ₂ , ORL ₃ , ORL ₄

Table 1: Target Sample Size of Key Informants

Source: Author's classification of key informants

Results and Discussion

This study delves into the multifaceted challenges faced by core music groups, focusing on POLC management strategies to advance the music industry in the Cebu Province. It examines barriers across social, economic, and technological domains by analyzing facilitators and hindrances. This study highlights adaptive coping mechanisms and intricate dynamics among core groups through a cross-case analysis. It aimed to elucidate the challenges and offer actionable recommendations, contributing to the sector's vibrancy and prosperity in Cebu Province.

Music Groups	Core	Key Informants	n	Years of Professional Experience		
				5 to 10 years	11 to 20 years	20 years and above
Music Creator		Music Producers	5	20%	40%	40%
		Artists Manager	3	33%	33%	33%
		Singers	4	25%	25%	50%
Artists		Bands	4	25%	50%	25%
		Musicians	4	25%	50%	25%
Organization		Record Labels	4		50%	50%

Table 2: Key Informants Demographics

Source: Author's calculations based on the inclusion criteria

Barriers Experienced by the Music Core Groups

Key Informants	Barriers	Sub-Theme	Emerging Themes
Music Creators	Social	Professionalism and Interpersonal Skills	Navigating Professional Dynamics
		Diversity and Cultural Dynamics	
		Social Pressure and Stagnation	
		Financial Limitations and Resource Constraints	
	Economic	Pricing Dynamics and Valuation Challenges	Financial Sustainability in Business Operations
		Costs and Expenditures	
		Earnings, Compensation, and Payment Issues	
		Intense Industry Competition	
	Technological	Piracy and Copyright Infringement	Challenges and Ethics in Technology Utilization
		Adoption and Adaptation to Technology	
		Equipment Reliability and Studio Setup	
Artists	Social	Technical Skills and Software Utilization	Social Equity and Empowerment Dynamics
		Technological Disparity	
		Access and Support	
		Advocacy and Empowerment	
	Economic	Interpersonal Dynamics	Economic Instability in Professional Pursuits
		Inequality and bias	
		Impact on reputation	
		Income Challenges	
	Technological	Negotiation Hurdles	Technological
		Limited Resources and Financial Constraints	
		Diversification and Stability	
		Talent Valuation	
		Technical Knowledge and Skills	

		Equipment and Instrumentation Production and Quality Standards Technology and Online Presence Challenges in Communication Piracy and Competition	Evolution and Industry Adaptation
	Social	Challenges in Pursuing Creative Careers Social and Cultural Perceptions Personal and Familial Challenges Societal and Industry Biases	Navigating Obstacles in Creative Pursuits
Organizations	Economic	Financial Viability and Sustainability Regulatory Impact Market Dynamics and Sales Resource Accessibility and Adequacy	Navigating Economic Realities in Business Technology Evolution and Access in Modern
	Technological	Technological Advancements and Impact	Practices

Table 3: Barriers Experienced by the Music Core Groups

Source: Author's identified barriers experienced by the music core groups

The study uncovered various barriers experienced by music creators in Cebu Province, focusing on the social, economic, and technological dimensions. Social barriers were illuminated through the theme of Navigating Professional Dynamics, thereby shedding light on the challenges faced by music producers and artist managers. For producers, evolving roles and technological advancements (Zager, 2021) have disrupted the dynamics of traditional studio (Campelo, 2019). Ambiguity in producer roles (Blake, 2009; Moorefield, 2010) has compounded contractual agreements and technical management challenges. Artist managers encounter diverse roles and identity regulation complexities (Szostak & Sułkowski, 2020), and artist decisions influence managerial conduct. Economic barriers underpinned by Financial Sustainability in Business Operations highlight limited funds and industry transformation (Holt, 2010). Declining recorded music profits (Gateau, 2014; Tschmuck, 2012) and digital piracy threats (Le, 2019; David, 2009) have shifted the focus to live performance (Kusek et al., 2005; Connolly & Krueger, 2006). Technological challenges, encapsulated in Challenges and Ethics in Technology Utilization, underscored digital piracy and ethical dilemmas (Marshall, 2015). The convergence of technology and industry demands ethical decision making (Aguar & Waldfogel, 2018; Borja et al., 2014), necessitating legislative frameworks and ethical education (Rogers, 2013).

In the vibrant music scene of Cebu Province, artists encompass singers, bands, musicians, and grapples with a plethora of social, economic, and technological barriers. Social challenges, encapsulated by the theme of Social Equity and Empowerment Dynamics, include a lack of support and resources, limited exposure, and struggles for representation in decision-making spaces (Behr et al., 2016). Gender biases and familial opposition compounded these challenges, whereas generational divides and age biases complicate artists' experiences (Webster et al., 2018). Various authors underscore the importance of social and cultural values in understanding these challenges, emphasizing the significance of social networks, inclusivity in live music scenes, and familial support (Grazian, 2009; Zwaan et al., 2009). Additionally, the perception of music as a privilege and the competitive nature of the

industry pose hurdles for artists needing exceptional talent or industry navigation skills (Barata & Coelho, 2021). Economic barriers, encapsulated by Economic Instability in Professional Pursuits, present artists with income uncertainties, negotiation hurdles, and limited resources (Haynes & Marshall, 2018). Economic barriers, encapsulated by Economic Instability in Professional Pursuits, present artists with income uncertainties, negotiation hurdles, and limited resources (Haynes & Marshall, 2018). The nature of the gig economy of the music industry, compounded by digitalization, offers independence and exposes artists to financial uncertainties (Milam, 2019). Discrepancies in average hourly wages between countries and a lack of income growth for artists globally highlight the severity of economic challenges (Bureau of Labor Statistics, 2022; Webster et al., 2018).

Moreover, shifts in audience preferences, rising rental costs, and inadequate investments from record labels exacerbate financial instability (Victoria, 2011; House of Commons Digital, Culture, Media, and Sport Committee, 2019). Technological barriers, captured by Technological Evolution and Industry Adaptation, arise from the transformative impact of digital advancements, streaming platforms, and online distribution channels (Couldry & Hepp, 2018). Although technology offers opportunities for exposure and expression, it also erects barriers that demand relentless adaptation (Balbi & Magaouda, 2018). Challenges include defining music genres, distributing content, and navigating revenue generation complexities from streaming services (Gillespie, 2010). Additionally, inadequate sound equipment in venues and challenges in achieving optimal room acoustics affect the quality of life (Petrescu, 2008; Adelman-Larsen, 2014).

In Cebu Province's music industry, organizations face a confluence of societal, governmental, and record label-related barriers encapsulated by the theme of Navigating Obstacles in Creative Pursuits. These barriers include perceiving music as an uncertain profession, lack of parental support, stereotypes, and gender bias (Lam et al., 2015; Ellemers, 2018). Similar to organizational downsizing and temporary contracts, job insecurity impacts artists' mental and physical well-being, echoing broader organizational challenges (De Cuyper et al., 2012). Parental support is crucial, with studies highlighting its pivotal role in children's musical development (Creech 2010). Implicit biases in the industry, including gender roles and genre preferences, influence decision-making processes within organizations (Ellemers, 2018; Brownstein, 2017). Sexism and gender biases manifest in hostile behaviors, impacting women's acceptance and advancement in the field (Barreto et al., 2010). Economic barriers, epitomized by Navigating Economic Realities in Business, include contractual restrictions imposed by major record labels and inconsistent amusement taxes on music events in the Philippines (RIAA, 2023; Casiño, 2010). Independent music production offers opportunities, but requires adaptive strategies to shift consumption dynamics (Galuska & Bystrov, 2014; Nordgård, 2018). Technological barriers, highlighted by Technology Evolution and Access in Modern Practices, include debates on digital progress, concerns about the impact of AI-generated music on human creativity, and uncertainties about copyright and legal implications (Hesmondhalgh, 2018; Deahl, 2019; Intercontinental Music Awards [ICMA], 2023). Ancillary barriers, including government and policy-related, external and industry-related, educational and knowledge-related, cultural, mental, health-related, and well-being, logistical, promotional, and personal challenges, collectively complicate the music landscape in Cebu Province, necessitating comprehensive strategies and collaborative efforts for sustainable growth.

Practices That Facilitate and Hinder the Planning, Organizing, Leading, and Controlling Management Among the Music Core Groups

Management of POLC practices in the music industry involves a complex interplay of factors that facilitate and impede progress, encompassing producers, artist managers, singers, bands, musicians, and organizations. Social, economic, and technological barriers contribute to this intricate situation, and shape the application of management techniques. Examining these barriers reveals gaps in planning within social, leading economic and technological barriers, underscoring the unique nature of music creators' work. Despite these gaps, the absence of certain practices and obstacles highlights the intricate and individualized nature of music creation within the industry. Notable gaps in the technological barrier section indicate artists' challenges in navigating technology, deviating from standardized management practices. Engaging in POLC functions presents a blend of challenges and opportunities for entities, such as government agencies and record labels, reflecting adherence to conventional organizational frameworks. Weirich et al. (2008) emphasized the foundational role of management in the music industry by integrating conventional managerial philosophies with music domain intricacies. Effective planning, as highlighted by DuBrin (2012) and Tilly (2013), aligns goals and strategies, whereas organizational management, as outlined by Tilly (2013) and Byrnes (2009), plays a crucial role. As explored by Holdford (2003), leadership practices affect both creative output and industrial adaptability. Control, which is vital for management, plays a diverse role, impacting music creators, artists, and organizations amid challenges that require careful management by industry leaders and stakeholders (Allen, 2018; Janke et al., 2016; Chow, 2020; Majeed, 2021).

Coping Mechanisms of the Music Core Groups

Music producers and artist managers face multifaceted social, economic and technological challenges. Pursuing dominance and distinction requires a unique blend of inherent ability, expertise, and unwavering dedication, echoing insights from Fernández-Company et al. (2022). Coping mechanisms have emerged as crucial tools for resilience against stress, a demanding lifestyle, and social isolation, emphasizing perseverance as a critical quality. Strategies such as faith, self-care, diversion, and community involvement have been highlighted by various scholars, including Seligman (2018), and Yağışan and Arslan (2014), to facilitate joy and satisfaction in the industry. Economically, the strategic coping methods described by Miller and Lessard (2001) and negotiation skills emphasized by Shonk (2023) influence outcomes, whereas adaptation to rapid technological evolution demands resilience and flexibility (Hanna, 2007). Artists encompassing singers, bands, and musicians employ diverse coping mechanisms to navigate challenges and balance musical mastery and industry pressures, as highlighted by Fernández-Company et al. (2022) and self-esteem, as influenced by Kruse (2012) and Swart (2016). They adeptly manage economic challenges, prioritize passion over monetary rewards, and embrace technology, highlighting their commitment to flourishing in the ever-evolving music industry. Government bodies and record labels employ education, online platforms, and collaboration with technical professionals to adapt to changing circumstances and utilize digital technology for competitive advantages, as discussed by Aprikian and Dekker (2020) and Rutter (2016).

Developed and Proposed Management Framework to Enhance the Music Industry in Cebu Province

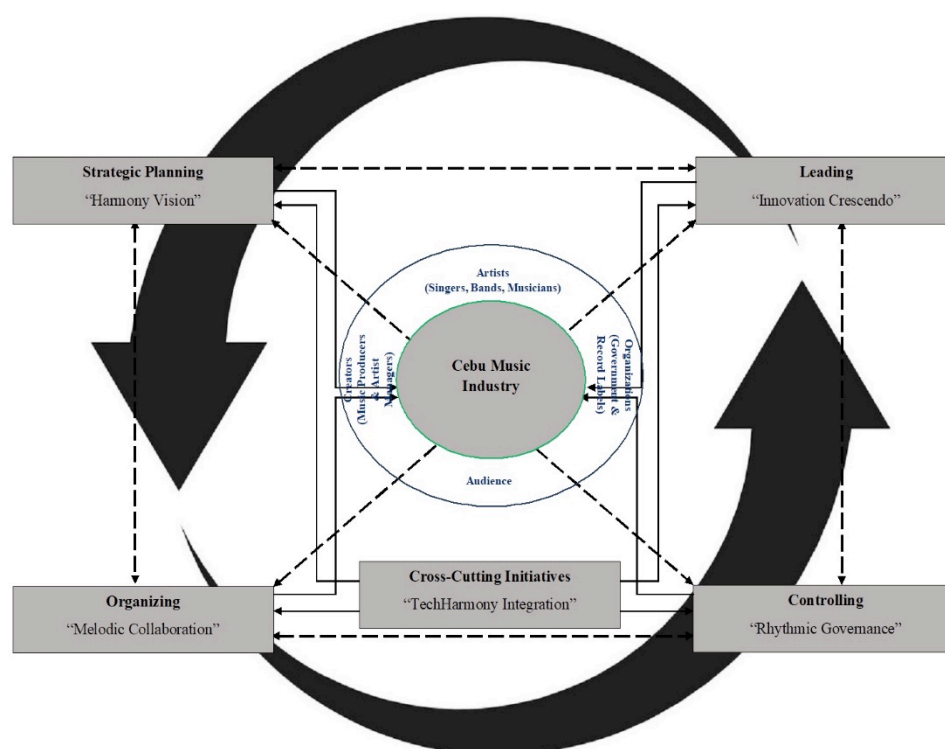


Figure 2: Amplify Cebu Music (ACM) Management Framework
Source: Author's developed management framework

As depicted in Figure 2, the ACM Management Framework represents a comprehensive and strategic approach to enhancing the vibrancy and sustainability of the music industry in Cebu Province. Grounded in classic POLC management functions, this framework addresses social, economic, and technological barriers that hinder industrial growth. The Harmony Vision in the Planning component provided a strategic vision, while the organizing function, Melodic Collaboration, fostered unity, and shared resources among artists. Leadership development and innovation promotion are central to the leading function represented by Innovation Crescendo as well as the controlling function, Rhythmic Governance, ethical standards, and accountability. A crosscutting initiative, TechHarmony Integration, was introduced to infuse technology into the industry, encompassing digital distribution platforms, digital literacy training, blockchains for transparent royalty distribution, and virtual collaborative spaces. Digital distribution platforms and social networking services, as highlighted by Kenney and Zysman (2016), Langley and Leyshon (2017), Srnicek (2017), Graham (2017), and Smith (2019), have been acknowledged as disrupting global cultural industries. Dai and Vasarhelyi (2017), Panay (2016), and Koltay (2011) emphasized the integration of blockchain technology and fostering digital literacy among industry stakeholders. The framework also underscores the importance of virtual collaborative spaces, technological evaluation, and adoption in ensuring that the music industry remains at the forefront of innovation. The interconnected arrows in the visual representation of the framework highlight the dynamic relationships between the management functions, thereby forming an evaluation loop for continuous feedback and adaptability. Stakeholder

involvement is central to the framework, with creators, artists, organizations, and audiences playing integral roles in influencing industry trends and ethical standards. Overall, the ACM Management Framework aims to magnify and elevate Cebu's musical identity, foster a vibrant and amplified music ecosystem that embraces diversity and technology, and resonates with local and global audiences.

Interventions to Support the Music Industry

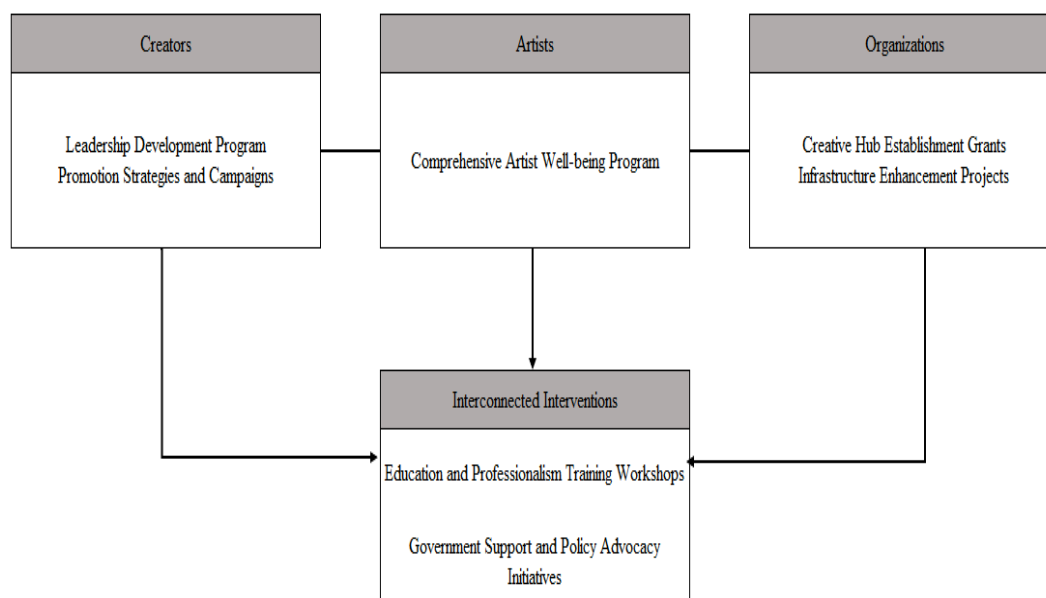


Figure 3: Specific and Interconnected Interventions to Support the Music Industry
Source: Author's identified specific and interconnected interventions.

The recommended interventions for enhancing Cebu Province's music industry, as depicted in Figure 3, offer a tailored strategy to address the specific needs of creators, artists, and organizations. The Leadership Development Program targets individual and collective leadership deficiencies, aiming to cultivate influential figures and promote industry cohesion. Drawing on the insights from Day et al. (2021), this initiative navigates challenges and fosters economic growth. Promotion Strategies and Campaigns, inspired by Lahutina (2010), Yakymiv (2012), Scolari (2009), and Zeiser (2015), leverage modern promotional approaches by encouraging local businesses to integrate Cebuano artists' songs and engage in cross-platform promotions, enhancing visibility and audience engagement through digital platforms. The Comprehensive Artist Well-Being Program, informed by Otake and Wong (2014), and the literature on financial literacy by Lusardi and Mitchell (2014) and Usama and Yusoff (2019), addresses financial literacy, fair treatment, health initiatives, and safety nets, contributing to a fair and sustainable music business environment. Creative Hubs and Infrastructure Enhancement Projects influenced by the Participatory Creative Music Hub model (Campbell & Hron, 2023) and successful urban planning creative hubs (Boswinkel & van Meerkerk, 2023; Dovey et al., 2016) foster creativity and community bonds through collaborative space. Education and Professionalism Training Workshops, drawing from global research (Ballico & Foran, 2023; Evans, 2013; Hennekam et al., 2019; Everts et al., 2021), address knowledge disparities and aspire artists to navigate competitive industries. Government Support and Policy Advocacy Initiatives, informed by examples from Korea and Japan (Beeson, 2009; Holroyd, 2019; Rhee, 2014; Otmazgin, 2020), aim to involve the

government in industry support through standardization, collaboration, and network facilitation, thereby contributing to economic and cultural growth. Together, these interventions form a comprehensive framework that addresses diverse challenges, including personal and professional development, promotional strategies, well-being, collaborative spaces, education, and government support, with the aim of creating a sustainable and thriving local music ecosystem in the Cebu Province.

Conclusion

The music industry is a complex environment shaped by societal, economic, and technological challenges spanning various governmental, cultural, and personal issues. Collaboration, strategic planning, and ethical use of technology are crucial for navigating these complexities. Management practices emphasize personalized music creation, effective planning, and balancing control with creative autonomy. Coping mechanisms such as faith, self-care, and community involvement are essential for building resilience. The ACM Management Framework proposes interventions, such as leadership development, promotion, artist welfare, and education, to enhance Cebu's music industry. Further research is needed to comprehensively understand this industry. This study provides a basis for stakeholders to develop targeted initiatives for achieving long-term growth. The implications extend beyond Cebu, offering insights applicable to music ecosystems worldwide, with the potential to transcend limitations and flourish as dynamic hubs for local and global audiences. This study examines Cebu's music ecosystem and proposes the implementation of the ACM Management Framework to address its challenges. It suggests targeted interventions, such as leadership development, promotion strategies, artist welfare initiatives, creative hubs, education programs, and professional workshops. By integrating this framework with the interventions outlined in Republic Act No. 11904, it aims to empower the Creative Industries Development Council to support Cebu's music scene effectively. This collaborative approach can enhance the growth and sustainability of Cebu's music industry and contribute to its creative economy. The study identifies areas for future research to deepen understanding and support the resilience and expansion of musical ecosystems, such as Inclusive Exploration of Industry Roles and Audience Perspectives, Comparative Analysis Across Music Ecosystems, Longitudinal Studies on Intervention Effectiveness, Exploration of Technology Integration, In-depth Analysis of Coping Mechanisms.

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Contact email: antoniette.almaden@cit.edu

ORCID: 0000-0002-3972-7501

***Analysis of the Use of English Article by Mongolian Students:
On the Cases of GMIT Students***

Nomindari Byambasaikhan, Mongolian University of Science and Technology, Mongolia
Mungunchimeg Amar, Mongolian University of Science and Technology, Mongolia
Enkhbaatar Tsedenbazar, Mongolian University of Science and Technology, Mongolia
Zolzaya Choijin, Mongolian University of Science and Technology, Mongolia

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This study addresses the challenges faced by Mongolian learners of English as a Foreign Language (EFL) learners trying to master the English article system, given the absence of definite and indefinite article grammar in the Mongolian language. Data for this study was collected over a 10-year period from the entrance exam writing materials of 560 students who took the entrance exam for the German-Mongolian Institute for Resources and Technology. The research utilizes Surface Structure Taxonomies (SST) to identify types, frequencies, and sources of definite and indefinite article errors in essay writing. The study reveals that the predominant issue is the misapplication of the definite article "the" and the frequent omission of articles, constituting 83.7% of total errors. L1 interference significantly influences the second language acquisition process, hindering learning. The research recommends an SST for error identification and advocates increased practical writing composition and feedback to address these challenges.

Keywords: Definite Article, Indefinite Article, Omission, Addition, Substitution, Mis-Ordering, Surface Structure Taxonomies

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Introduction

The acquisition of the English article system poses challenges for both native and non-native speakers. This complexity is heightened for speakers of L1 languages lacking articles, as observed in Mongolian.

This study explores challenges for Mongolian EFL learners in mastering English articles due to the absence of article grammar in Mongolian. It employs Surface Structure Taxonomies to identify types, frequencies, and sources of article errors in essay writing. This study explores errors in article usage among Mongolian EFL learners, highlighting the impact of L1 interference. The Transfer Theory, associated with Noam Chomsky's universal grammar, is considered, acknowledging the role of previously acquired linguistic knowledge in new language learning.

Error Analysis

Error analysis is crucial in language learning, allowing the identification, classification, and understanding of learners' mistakes. This systematic approach aids teachers in reinforcing teaching strategies. The study categorizes errors into substitution, insertion, omission, and transposition, shedding light on interference and Interlingua sources of errors.

Literature Review

Extensive research on the L2 acquisition of articles has been conducted, emphasizing cultural challenges and discourse types. The current study incorporates models by Goto Butler (2002), Huebner (1983), and Thomas (1989) to classify errors. English articles' simple morphology poses difficulties, especially for learners from languages with different article systems. Ekiert (2004) worked with Polish learners; Ionin, Ko, and Wexler (2004) studied Russian and Korean learners; Snape (2005) studied Japanese speakers; Wong & Quek (2007) studied Chinese and Malay speakers; Ionin et al (2009) studied Russian learners; Master, P (1987, 1995, 1997) studied on Teaching and learning English article for Turkish speakers and there may well be other studies that have yet to be widely publicized.

The study explores the grammatical structure of Mongolian and its differences from English in article usage. English has definite ('the'), indefinite ('a' and 'an'), and zero articles, while Mongolian relies on demonstratives and morphology for reference. These linguistic differences contribute to errors among Mongolian EFL learners.

The study finds a major problem: misusing "the" and omitting articles (83.7% of errors) among Mongolian EFL learners. L1 interference hampers learning. Recommendations include using SST for error identification and emphasizing practical writing with feedback to tackle these challenges.

Research Methods

Data collection involved 1060 sentences written by Mongolian students during an entrance exam for a university engineering course. Error identification, categorization, and frequency analysis were conducted using Surface Structure Taxonomy (SST) and models by Huebner and Thomas.

Results and Discussion

Analysis revealed that 83.7% of errors were omissions, while addition and substitutions constituted 8.5% and 7.8%, respectively. The study discusses the implications of each error type, and their sources, and recommends language teaching strategies for intermediate learners with Mongolian as their native language.

In conclusion, this study contributes valuable insights into the challenges faced by Mongolian EFL learners in acquiring the English article system and proposes practical recommendations for language teaching improvement.

Findings and Discussion

The assessment tasked students with producing a short descriptive text comprising 250 words, selecting one of three provided topics. Error analysis followed the procedure outlined by Ellis (1997), categorizing errors into four distinct types: omission, addition, misinformation, and mis-ordering. The analytical process involved four key steps: identification, description, explanation, and evaluation of errors.

The initial phase focused on identifying errors within the students' texts. Subsequently, the errors were meticulously described, elucidating the specific nature of each occurrence. To provide a comprehensive understanding, the researcher then delved into explaining the identified errors, shedding light on the reasons behind their manifestation. The final step involved evaluating the errors, employing a systematic approach to gauge their significance and impact on language proficiency.

1. Errors of Omission

The analysis of written samples revealed that omission errors, specifically the omission of the definite article 'the' and indefinite articles 'a/an' where obligatory, constituted the most frequent errors, accounting for 83.7% of the 1060 errors in total. Within the category of omission errors, the omission of the definite article 'the' emerged as the most prevalent, with 431 instances. Additionally, 195 errors were related to the omission of the indefinite article 'a,' and 39 errors were attributed to the omission of the indefinite article 'an (see Table 1). These findings underscore the significance of addressing omission errors in English article usage among Mongolian EFL learners.

Error Types	Number of errors	Percentage
Omission the	654	73.64%
Omission a	195	21.95%
Omission an	39	4.3%
Total	888	100%

Table 1: Distribution of Omission Errors

The prevalence of omission errors highlights a specific area of challenge for learners, particularly in mastering the use of definite and indefinite articles. Addressing these errors is crucial for enhancing the overall proficiency of Mongolian EFL learners in English article usage.

In accordance with findings by Hikmah (2020), omission errors occur when learners lack the necessary grammatical form required in a sentence, leading to the omission or deletion of the essential element. This phenomenon is indicative of a deficit in incorporating the requisite components for a well-structured sentence. The absence of an item that is essential to the sentence formation characterizes omission errors.

No.	Incorrect sentence	Correct sentence	Explanation	Goto Butler (2002), Huebner (1983), Thomas (1989)
1.	Engineer is (...) amazing major.	Omission an	In this sentence indefinite article an is omitted before the word 'amazing' which starts with vowel sound. Major is generic noun. So, the correct sentence must be: Engineering is an amazing major.	Type 1 [-SR,+HK] Generic nouns
2.	In (...) street, at (...) mall, at (...) office all people are using their phones.	Omission the Omission the Omission the	In the first sentence: The word "Street" is specific noun requiring the definite article "the" to be written. In the street, at the mall, at the office all people are using their phones.	Type 2 [+SR, +HK]
3.	I think letter has (...) real meaning.	Omission a	In this sentence real is defining the 'soul' which starts with constant sound. So, the correct sentence will be: I think letter has a real soul.	Type 4 [-SR, -HK]
4.	In (...) 1980s UB where was (...) little town had number of buildings, cars, and computers.	Omission the Omission a	Before singular and generic noun little town consonant word indefinite article 'an' must be used. In 1980s UB where was a little town had number of buildings, cars, and computers. The correct sentence must be: In the 1980s UB was a little town with few buildings, cars, and computers.	Type 5 [-SR, +HK] Type 1 [-SR, +HK]
5.	That all reason why people think modern technology is making us less sociable.	Omission the	It is a specific reason and referential definite Those are the reasons why people think modern technology is making us less sociable.	Type 2 [+SR, +HK]

Table 2: Errors of Omission

2. Errors of Substitution

Substitution errors accounted for the least frequent errors by far in this study representing only 7.8% (80 errors). It is much lower than errors of omission and insertion. The errors of substitution made by the students who misuse the definite article 'the' was 55 (68.75%), the substitution of 'a' was 16 (20 %), and the substitution of 'an' was 9 (11.25%).

No.	Incorrect sentence	Error Type	Explanation	Goto Butler (2002), Huebner (1983), Thomas (1989)
1.	My friend had (a) e-mail friend.	Substitute an	Instead of an, the student use a for the vowel sound noun 'e-mail'. It is likely they mistook the indefinite article 'a' for a vowel sound letter. My friend had an e-mail friend.	Type 1 [-SR, +HK]
2.	If I were (the) mayor of Ulaanbaatar, I would change the transportation system.	Substitute a	The students chose 'the' instead of 'a' for mayor and the phrases for 1 st subjunctive conditional 'If I were a...' He/she applied zero article before mayor as the word starts with consonant sound. If I were (a) mayor of Ulaanbaatar,	Type 5 Idioms
3.	Learning (the) language seven for a month or two would definitely benefit me both in school and even for a month or two months would definitely benefit me both societies.	Substitute zero article	It is talking about general things not particular language. Learning a language in school and society.	Type 1 [-SR,+HK] Generic nouns
4.	If I join (a) university, I will be (...) best student.	Misinformation the Omission the	It is particular and clear to hearer and calls for a specific rather than general reference: If I join the university, I will be the best student.	Type 2 [+SR, +HK] Type 2 [+SR, +HK]
5.	I read (a) little text with, while has (a) information about engineers ability.	Misinformation the	It is talking about specific and hearer knew the text and information is uncountable abstract noun. So, there is no indefinite article is	Type 2 [+SR,+HK]

			needed. Therefore, that the correct sentence will be: I read the little text with while it has some information about engineer's ability.	
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Table 3: Errors of substitution

Within the spectrum of errors identified in this study, a notable category involves substitution errors, exemplified by instances such as 'a email friend.' Here, students inaccurately replaced the correct indefinite article 'an' with 'a.' This highlights a consistent pattern where learners tend to substitute 'a' incorrectly instead of the appropriate 'an.' Another manifestation of substitution errors is evident in the sentence: 'Learning the language even for a month or two would definitely benefit me both in school and even for a month or two months would definitely benefit me both society.' In this case, a student erroneously replaced the zero article 'Ø' with 'the,' deviating from the correct usage: 'Learning the language even for a month or two would definitely benefit me both in school and society.' This observation resonates with the findings of Snape (2005), who documented instances of students substituting the indefinite article 'a' for the definite article 'the.'

3. Errors of Addition

In this investigation, insertion errors constituted the second-highest proportion, accounting for 8.5% (90 errors) of the total 1060 errors analyzed. Students frequently inserted the indefinite articles 'a' and 'an' before abstract, mass, proper nouns, and non-count nouns, with a higher frequency than the definite article 'the.' In the English article system, it is grammatically incorrect for 'a' and 'an' to precede plural and non-count nouns. Nevertheless, participants in our study consistently made this choice, particularly by placing 'a' before non-count nouns, especially abstract nouns.

Instances such as 'a physics,' 'an information,' 'an education,' 'a unique major,' and serve as evidence of a divergence from the established principles governing article usage in the English language. In English, the indefinite articles 'a/ an' specifically denote 'one' and should only be used before singular count nouns. However, examples like 'an awesome player' indicate a deviation where 'an,' a variant of 'a,' precedes a word starting with a vowel sound. While the selection of indefinite articles typically depends on the singular noun category, irrespective of adjectives modifying the noun, there appears to be a certain degree of conformity to phonological principles in the use of articles, at least at the early developmental stage of learning the article system. This suggests that novice writers may establish phonological associations sooner than semantic associations when learning the article system.

Other instances, such as 'the Nalaikh,' 'a university,' 'an information,' and 'the Mongolia,' represent further deviations from the established principles of the English article system. Despite contextual cues indicating the null (Ø) article, participants randomly inserted 'a' and 'the' in front of these nouns and adjectives. Even with the provided context and writing prompts, intermediate English learners in this study demonstrated a lack of awareness and understanding regarding the accurate use of articles, as evidenced by these instances. This finding resonates with Lee's (2013) research, which found that beginners, despite contextual support, exhibited a low accuracy rate in the use of English articles in written discourse. Lee concluded that, overall, accuracy in the use of English articles was higher in written

narratives compared to oral narratives (p.40). This suggests that such errors persist beyond the beginner stage and continue to be a challenge even for intermediate learners.

No.	Incorrect sentence	Correct sentence	Explanation	Goto Butler (2002), Huebner (1983), Thomas (1989)
1.	Engineering is (an) unique major other than any majors we see nowadays.	Addition an	Major is mass noun and it doesn't take article. It is talking about generic thing. Engineering is unique major other than any majors we see nowadays. The correct sentence must be: Engineering is a unique major from other majors we see nowadays.	Type 1 [-SR, +HK]
2.	If you guys built a new road to the Nalaikh with mountain road maybe that's very helpful for people's time.	Addition the	Nalaikh is a proper noun and uncountable noun therefore there is no article is needed. If you guys build a new road to Nalaikh with mountain road maybe that's very helpful for people's time. The correct sentence must be: If you guys build a new road to the Nalaikh with mountain road maybe that's very helpful for people's time.	Type 1 [-SR, +HK] Generic nouns
3.	In (the) Mongolia the highest contamination is in (the) Ulaanbaatar city.	Addition the	In this sentence, before the proper and uncountable noun, indefinite article musn't be used.	Type 1 [-SR,+HK]

Table 4: Errors of Addition

Errors of Mis-Ordering

In the context of this study, mis-ordering errors, as defined by Hendrawaty (2018), refer to the erroneous placement of a morpheme or a collection of morphemes within an utterance. Such errors occur routinely for both L1 and L2 learners, manifesting in constructions previously acquired. This type of error is characterized by the accurate sequencing of some elements but with inaccuracies in their placement.

Incorrect sentence	Correct sentence	Explanation
But it can be anything, the skills are uncountable.	But it can be anything, the skills are countless .	The students in this case mixed up the correct use of the word. Countless implies that there are a vast number of skills, but they can still be individually counted. It does not mean that skills are uncountable in the grammatical sense; rather, it emphasizes the abundance of skills.
But on the other hand, it cost money much.	But on the other hand, it costs much money .	After “it” pronoun cost must add “s” simple present tense and then it is grammatically correct.
My mother and father are both an entrepreneur, celling part of car.	My mother and father are both entrepreneurs, selling parts of cars	My mother and father are both plural subjects following compliment noun. The plural “s” should be added due to grammar issue. In addition instead of writing selling the student made a spelling mistake.
It is (an) interesting and excited work.	It is interesting and exciting job.	The students mixed up the phrases’ “work” and “job.”

Table 5: Errors of Mis-ordering

Examples of Article Usage Errors

Instances of article usage errors were identified in other sentences studied. In one example the student wrote "Individuals could use environmentally friendly products to decrease (the) global warming" An inappropriate use of 'the' before 'global warming' was observed. Since 'global warming' is an abstract noun, it does not require a definite article. The correct sentence reads: "Individuals could use environmentally friendly products to decrease global warming."

In a second example a student wrote "That is a mountain in suburbs," the use of 'a' before 'mountain' is incorrect as the sentence refers to a specific mountain in the suburbs. The correct sentence is: "That is the mountain in the suburbs."

A third example was "I think a most appropriately chance to own these abilities is at school," demonstrates the incorrect use of 'a' before 'most.' As 'most' is a superlative in a noun phrase, it should be accompanied by the definite article 'the.' The accurate sentence is: "I think the most appropriate chance to own these abilities is at school."

The final example was "If I got (a) opportunity to study abroad with scholarship there is no doubt I will stay here in Mongolia," This illustrates the need for 'an' before 'opportunity' due to the word's initial vowel sound. The correct sentence reads: "If I get an opportunity to study abroad with a scholarship, there is no doubt I will not stay here in Mongolia."

No	Type of the error	Error Frequency	Error Percentage
1.	Omission	888	83.7
2.	Addition	90	8.5
3.	Misinformation	82	7.8
	Total	1060	100%

Table 6: Proportion of the errors

Addition Errors Analysis

A comprehensive examination of addition errors in the analyzed data revealed a total of 90 instances. Among these, 44 sentences out of 90 involved the addition of the indefinite article 'a,' while 40 sentences out of 90 exhibited the addition of the definite article 'the.' Additionally, 6 out of the total 90 errors involved the addition of the indefinite article 'an.'

Conclusion

Based on the findings and discussions in this research, it can be concluded that students at the German Mongolian Institute for Resources and Technology (GMIT) engineering program in Mongolia, who participated in the writing test, continue to exhibit errors in the use of English articles within descriptive texts. Three main types of errors were identified: omission errors were the most frequent, accounting for 83.7% (888 out of 1060); insertion errors followed by 8.5% (90 errors); and misinformation errors constituted 7.8% (82 errors) of the total errors.

The errors happen because Mongolian doesn't have definite and indefinite articles. Instead, we use determiners like "this," "these," "that," and "those" to do the job of English articles. Also, we use the number "one" as a stand-in for the indefinite article "a/an." The main reasons for making these errors are the learners' proficiency levels and their basic understanding of English articles, along with the methods used in teaching.

Identifying common mistakes and challenges early on through pre-tests and post-tests is crucial for understanding the underlying issues. Implementing techniques such as writing descriptive texts and providing constructive feedback on English article usage is effective in error elimination. Additionally, addressing language differences between L1 and L2, along with teaching the nuances of English articles using models like Huebner (1983) and Thomas (1989), enhances students' knowledge.

Regular writing tests facilitated through platforms like Google Forms, accompanied by explanations for identified errors, serve as valuable tools for error reduction and interactive learning. Employing appropriate teaching methods, utilizing authentic materials, and offering consistent support for error correction in compositions contribute to effective language acquisition. Sequentially teaching English articles in context, starting from smaller linguistic units to larger paragraphs, allows learners to progressively enhance their comprehension of article usage. By adopting these strategies, educators can create a comprehensive learning environment that focuses on grammar, integrates practical writing exercises, and provides targeted support for learners, ultimately fostering a stronger understanding and application of English articles.

Acknowledgements

I would like to express my deepest gratitude to the authority and colleagues of the German-Mongolian Institute for Resources and Technology for providing me with the opportunity to participate in this conference and for their motivation and belief in me. To my dear supervisor, Mungunchimeg Amar, Senior Lecturer at the Mongolian University of Science and Technology, thank you for your invaluable advice and guidance.

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Contact email: nomindari1@gmail.com

Power, System, and Social Action: Reflections on Social Theory

Cinzia Cilento, Vanvitelli University, Italy

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In understanding the social relationship as a moment capable of reciprocal effects structured according to the binomial push/counterthrust, the reference to Georg Simmel and relational theory is inevitable. Therefore, assuming the relationship as the presupposition before sociology, and sociology itself as a problematic investigation of the forms of relation, it is possible to consider phenomena such as marginalization, ostracization, discrimination and incorporation, as forms of reaction of the actor to the social system. In the light of Simmel's arguments with respect to the individual, and by Parsons according to the interactions between systems and subsystems, the following proposal intends to investigate four hypotheses of the relationship between actor and system, analyzing the different forms of power exercised by systems and the socio-spatial orientations of the actor by motivating their origins and investigating their effects.

Keywords: Social Actor, Social System, Power, AGIL

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Introduction

In order to be able to imagine the different orientations of the social actor within the social system and the possible and different relationships that exist between them, it is functional to re-propose the concepts of duality and reciprocity presented by Simmel. Starting from an empirical observation of reality, it is possible to verify how the action of an individual belonging to a community, in addition to the physiological consequences related to the action produced, determines the realization of further effects in the system in which he participates. The set of actions and reactions configures a continuous change of the reference system, which in turn reacts by exercising different forms of power over the acting social actor.

For Simmel, society is what arises from the interactions between individuals and their individual action according to a cause/effect logic, “in the broadest sense of the term [society] manifests itself in a concrete way where several individuals come into action on each other” (Simmel, 1992, 54). Therefore, imagining society as a set of social relations and interactions between individuals, it follows an interpretation of reality that looks at the social fact as an individual fact, that is, the “social is the relational as such, that is, reciprocal action as an inter-action that produces, is incorporated and manifests itself in something that, although not visible, has its own solidity” (Donati, 2006, 46): the formation of the social is therefore both cause and effect of inter-individual action.

If the action of the social actor is for Simmel the foundation of society, the relationship represents the essential element for the existence of a system to be outlined, an entity that is concretized through the intervention of actions and interactions. By virtue of this reciprocity, social actors carry out actions capable of generating forms understood as social spaces within which action unfolds. And it is through forms that society is being structured as a macro-entity, “which indicates a circle of individuals, linked to each other by various forms of reciprocity, whose unity is the same as that observed in a system of bodily masses, such as to influence each other and behave according to the determination they receive.”

To provide a different perspective of critical analysis with respect to the forms of interaction and relationship that justify in their union the sociation of which Simmel, Talcott Parsons inserts himself by conceptualizing an overcoming of the sociological paradigm of the Berlin author. If it is true that society is a set of parts, it cannot be investigated by considering only its formal nature, precisely because it has a structural intention.

Generating a new epistemological framework, Parsons, while starting from the analysis of the social relation, describes its relevance in relation to its structure within social systems, which in turn represent autopoietic entities capable of self-regeneration according to the interactions that develop within them.

If we want to associate author with paradigm, it is plausible to argue that for Simmel the fundamental notion from which his social theory comes to life is the form of interaction, while for Parsons the essential element from which he conceptualizes a theoretical vision of the world is attributable to social systems of action.

Specifically, “the fundamental starting point is the concept of social systems of action. By this we mean that the interaction of the individual acting takes place under such conditions that it is possible to consider this process as a system in the scientific sense, and to subject it

to the same kind of theoretical analysis successfully applied to other types of systems in other sciences (Parsons, 1951, 11).

Despite the fact that the perspectives of analysis insist on substantially opposite levels, i.e., form in Simmel and content in Parsons, both respond to the request for an interpretation of social reality, more in detail of the relationship between the individual and society. In the theoretical horizon proposed by Parsons, form is declined as a common denominator emerging from a system of social relations, which draw their foundations from the structure of the system.

Taking this perspective of analysis as a theoretical support, it is possible to attempt an in-depth study of the social relations produced by the system and therefore the influence of the reference system on the individual and collective action of the social actors involved.

The following proposal intends to pay attention not only to the social relationship as interaction between individuals, but also to the relationship between social actor and system, in order to hypothesize whether and in what ways the reference system has a guiding function both in individual action and the positioning of the social actor inside and outside the system.

By repeating the question already raised by Gallino, it is therefore possible to explain and predict the specific ways in which an individual, participating in one or more social systems, has acted or will act in different situations, in the presence of different initial parameters of his condition, including, among the latter, internal states such as emotions, needs, goals, values, interpretative schemes, reasoning processes?

The AGIL model represents the essential scheme from which the present research moves, configuring through an elaboration of functional imperatives four modes of influence through the exercise of power of the system over the social actor.

The Functional Organization of Action

Parsons' theoretical approach can be interpreted both as a conceptualization of the social system and as an elaboration on the action of the social actor. Specifically, considered as “action is an element, in a certain sense special, of social systems, and at the same time a consequence of a particular cooperation between these same systems” (Addario, 2019, 7), it is possible to understand the relationship as the unfolding of action between the social system and the social actor, whose action is determined by the system itself.

The action so technically understood by Parsons represents an effect of the primary systems, not an internal element of and to them. According to the author, the social system, in order for it to exist and survive, must satisfy four functional imperatives referred to as adaptation, goal attainment, integration, and latency. Each requirement requires the exercise of a form of power over the structure of the system itself in order for it to maintain order. By intervening on the subsystems and institutions that make up the system, it is inevitable to consider the actions of the social actors that make up the reference system and what can be the methods of maintaining balance advanced by the system.

Therefore, each function corresponds to the achievement of a systemic objective that insists on the surrounding environment through the use of different subsystems. The achievement of

a given objective requires an organization of the system oriented towards a precise organizational state, which is an expression of one of the above functions.

Applying the Parsons' functional scheme to the relationship between system and social actor, keeping the four instrumental and integrative imperatives as the compass of analysis, it can be argued that each function corresponds to an exercise of power whose purpose is represented by the achievement of a precise organizational state; the latter will represent the reason for the positioning of the social actor understood as "the placement of an individual in a network of social relations or relations, that is, in a social structure or system" (Gallino, 1978, 527).

The Social Actor and Positioning in the System

Admitting that there is a relationship between a social system oriented towards the achievement of a certain goal and a social actor, it is appropriate to ask ourselves what could be the ways in which the system relates to the individual; whether the same modalities influence or even be a determining element in the identification of the boundaries of the system and the positioning of the social actor in the system; whether there is an exercise of power by the system and how this is satisfied with regard to the social actor, influencing, determining and defining his relationship with the system.

As Parsons argued, in order for the social system to maintain its structure and succeed in reproducing it, it needs not only the institutions and therefore the subsystems that compose it, but it is necessary that there must be an active participation of social actors in its functioning; Therefore, many complicated processes are necessary to maintain the functioning of any social system; If its members never intervened, a society would cease to exist very soon (Parsons, 1991). By associating each functional imperative with an optimal level to be achieved, an expression of the completion of the internal organizational state of the system, the following proposal for the analysis of the relationship between the social system and the social actor is configured:

1. Efficacy – Effective Power – Marginalization
2. Efficiency – Efficient Power – Ostracization
3. Adaptation – Adaptive Power – Discrimination
4. Integration – Integrative Power – Incorporation

Starting from the elementary definition of power, it is identified in the "capacity of an individual or collective subject to achieve intentionally and not by accident certain ends in a specific sphere of social life, or to impose his will on it, despite any contrary will and/or active or passive resistance of another subject or group of subjects" (Gallino, 1978, 529); it is possible to associate to each of the functions that define Parsons' functional imperatives a different form of power, which is expressed and concretized in different ways.

According to the analysis, power is also considered as a form of social relationship within which the reference system is placed in a higher dimension than the actor, who, not holding any dominant position, is conditioned by the actions of the holder of power, such as the system.

Going into the merits of the above list, in the first case, if the system has as its main objective the achievement of an effective organizational state through the visualization and pursuit of well-defined goals, in order to satisfy this effective state, it proposes a utilitarian attitude. The

reference system orients its actions according to an approach imbued with economic-instrumental rationality, to which it subjects the social actor through the exercise of effective power. The latter, where it expresses an inability to adapt to the needs of the system, is marginalized by it and therefore positioned at the boundaries of the same.

Therefore, it is possible to understand marginalization as a relationship that is the expression of an action of the system towards the social actor, a determining element of the very concept of marginality since the term “has a meaning only if the social system or systems with respect to which a given subject or plurality of subjects occupies a marginal position are specified (Gallino, 1978, 423).

The social actor, if not seduced by effective power, is subjected to the orientation of the action of the system, which, by virtue of the social actor's rebellion against adaptation, rejects him to the margins, excluding him from the center of systemic power and relocating him instead outside, while constraining him to belong to the marginalizing system.

If we want to find a definition of the social actor forced to the margins, we immediately refer to the figure of the *marginal man* elaborated by Park, who argues that the marginal man is a cultural hybrid, with a divided self and at the same time capable of combining the knowledge and conscience of those who do not participate in certain goods and rights with the attitude and critical judgment of those who are on the margins of society (Ciucci, 2006).

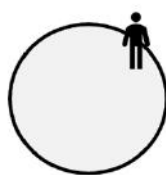


Figure 1. Graphic representation of Marginalization.

Following the theoretical line traced, it is possible to highlight a second relationship between the social system and the social actor, which is not effective but efficient. The system motivates its action according to efficient power, capable of satisfying the structural motivations of the system through the realization of a common project. The system, as the dominant subject of the relationship, directs its action towards a precise and determined goal, the achievement of which itself represents the enterprise.

The efficient function is expressed in totalizing ways, to the point of functionalizing any element and any dimension of the system itself, exercising a form of efficient power over the social actor such that, if not participating in the mission, he will be excluded. The only reaction allowed in the efficient relationship is an action motivated by full cooperation in achieving the system objective, understood as cooperation and therefore the execution of highly specific and predetermined actions. Where this hypothesis does not occur, ostracization represents the orientation of the system towards the social actor.

Efficient power, exercised as an instrument of influence in the maximum expression of the efficient function according to the scheme of functional imperatives, responds to the rebellion of the social actor with expulsion from the system, ostracizing the individual and confining him outside the structural limits of the system itself, thus justifying his inefficiency with respect to the achievement of the set goals.

The social actor represents an object of hostility, to the point of fulfilling the role of foreigner, who is described by Simmel as “fixed in a certain spatial sphere, or in an environment in which the determinacy of limits is analogous to the spatial one; but his position in this sphere is essentially determined by the fact that he does not belong to it from the beginning, that he injects into it qualities that do not derive from it or cannot derive from it” (Simmel, 2018, p. 821), confirming how non-subordination to efficient power constitutes the positioning, in the form of expulsion, of the social actor.

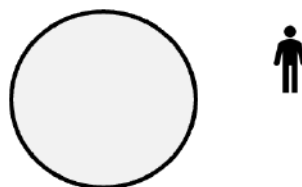


Figure 2. Graphical representation of Ostracization.

With regard to the third orientation, the social system relates to the social actor by exercising a form of adaptive power, through which it preserves the systemic structural balance while not excluding relations with the external environment. The enhancement of the adaptive function, and therefore the exercise of an adaptive power, forces the social actor to adopt a set of passive behaviors designed not to modify and/or hinder the set of actions carried out by the resilient system. The result is an immobility and impotence in action on the part of the social actor, who, unable to resist the intrinsic adaptation of the system, is overwhelmed by it.

Because of the adaptive power exerted by the system, the social actor remains positioned within it, but in a new and different spatial form, which attests to being the victim of a discriminatory systemic action.

Therefore, discrimination represents the relationship between the social system and the social actor that is expressed in the form of adaptive action by virtue of the power exercised by the system over the actor. The system is incapable of integrating or expelling the actor and therefore ghettoizes him, bringing him back to a situation of isolation and confinement. The subject remains in the system, is inserted into it, but is in turn relocated within a subsystem, which provides an illusion of integration: confinement describes a spatial dimension capable of limiting interactions and therefore making the individual and his reactions to the resilient system inactive. The *subsystem* generated by the system can be interpreted in the light of Gordon Allport's *in-group* and *out-group* concepts. The *in-group*, in the proposed orientation, refers to the resilient system and as such is distinguished from the subgroup precisely by virtue of its conformity imposed as a supreme value, i.e., “it is constituted through the recognition of belonging to a 'we' and the sharing of 'a web of habits', with respect to which the individual is constantly called upon to be loyal and compliant” (Alietti, 2023, 109). The

discrepancy of the social actor and therefore the “refusal of the majority group [system] to accept change” (Alietti, 2023, 122) produces discrimination and confinement to the *out-group*.

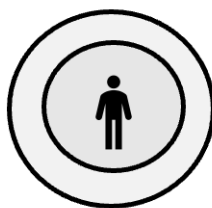


Figure 3. Graphic representation of Discrimination.

Finally, the last guideline describes a relationship between the system and the social actor that unfolds in the form of integrative action. By once again understanding the system as a superordinate entity, through the exercise of an integrated power capable of conditioning the behavior of others, it will tend to preserve its own boundaries and order, stemming any form of violation in this regard, and instead dictating a horizon of meaning that is widely shared.

The social system of reference therefore acts according to traditional modalities inspired by an exercise of integrative power in order to incorporate and make the nucleus of the system the social actor, who, limited in his actions, will recognize as his own structural characteristics those of the system that has skilfully incorporated him.

The relationship elaborated as an action of incorporation of the actor by the system places the subject at the center, at the nucleus, realizing a real annexation to unity. As Mauss argued with respect to the process of "inculturation" and imitation of traditional practices, in this new spatial dimension the social actor lives and acts according to the structures of the system in which he is completely incorporated, becoming a transposition of it.

The system, through integrative power, is the only possible system for the social actor, who conforms and merges within the system itself through the sharing of aims, functions and structural characteristics.

Bourdieu provides an example of this through habitus, a concept that expresses a collective and individual dimension in that what must be normatively said, done, expressed and desired with regard to the objective, social or subjective worlds refers to an implicit and explicit common knowledge internalized by the subjects in their cognitions, behaviors, body postures and feelings (Bourdieu, 1990), an elaboration that provides a key to understanding the fourth proposed positioning.



Figure 4. Graphical representation of the Incorporation.

Conclusion

Starting from Parsons' functional imperatives, it is possible to imagine the main states to which a social system tends, hypothesizing the ways in which the system itself achieves its objectives and conditions the actions of the social actors that constitute it. In particular, by associating specific forms of power with the goals programmed by the system, it is possible to imagine how the social actor suffers, participates or is repulsive towards the exercise of power. On the basis of the effects that this practice produces, the social actor will define his place, his location inside, outside, or on the margins of the system itself, a positioning that will condition his attitude and his actions. In relation to the type of power exercised, the position of the social actor who suffers this power changes, and depending on it, directs his action in a contrary way to the system to which he belongs or associates himself with it, becoming an integral part of it. Phenomena such as discrimination, marginalization, incorporation or expulsion can be read by excluding variables of a typically cultural nature and therefore, according to this interpretation, through the four-field model having as its object of investigation the relationship between social actor and system, it is possible to provide a general overview aimed at understanding how the individual is directed and governed to a certain extent by the system within which he is inserted. At the same time, it should be pointed out that considering the social actor as a neutral agent represents one of the limitations of research. Indeed, the social action of the actor as an autonomous individual is not taken into consideration, but only the choices that he makes in relation to what is required by the system are highlighted. For reasons of systematicity, it has been deliberately chosen not to consider the multiplicity of paths that can be followed by the social actor, elements that would have inevitably made the analysis extremely complex and difficult to frame.

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Contact email: cinzia.cilento@unicampania.it

“Rainforest Alliance Logo” as a Key Element of Conspiracies in the German and Slovak Language Space

Simona Fraščíková, University of Ss. Cyril and Methodius in Trnava, Slovakia

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The irrationality of the context in the shared content, which is often immediately noticeable, yet often unprecedented viral character... these are just some of the features that characterize conspiracy theories, hoaxes, and fake news. What is so "appealing" about them that they manage to "stay on the scene" and get under the skin of a relatively wide range of recipients? The paper will deal with the issue of conspiracy theories, hoaxes, and alternative truths. In particular, the focus is on their linguistic representation, which is often accompanied by visual elements, and thus, in this case, on the aspect in question. The analysis aims to pinpoint the linguistic strategies of conspiracy theories, hoaxes, and alternative truths as one of the effective means to reach the widest possible audience, using the example of specific content. The analysis focuses on a specific visual and content element, namely the "Rainforest Alliance logo", and its thematization in conspiracies in German and Slovak-speaking countries. Thus, at the end of the analysis, it will also be possible to outline possible differences in the use of linguistic (and visual) resources in the linguistic communities of the languages mentioned.

Keywords: Conspiracy, Rainforest Alliance Logo, Linguistic Representation, Strategies, Visual and Sound Effects

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Introduction

Conspiracy theories have been an extremely popular subject of academic research for some time now. Various aspects have helped to crystallize the main characteristics of conspiracy theories and to understand them as a current phenomenon. Accordingly, conspiracy theories as a specific offer of meaning and explanation are characterized by the postulate of the determinacy of all events and their consequences, which goes hand in hand with the concealment of the actual plans of the conspiratorial community (cf. Butter, 2023, p. 22-29; Fuchs, 2022, p. 30f.; Lutter, 2001, p. 24-27). The identification of the conspirator position in conspiracy theories points to another elementary characteristic, namely the binary worldview against the background of the friend-foe scheme or perpetrator-victim scheme. The perpetrator role is played by a conspirator and his henchmen and gullible, and the victim role is embodied by an enlightener, i.e. the conspiracy theorist and his followers (cf. *ibid.*). The profile is rounded off by the complex interweaving of events and extensive contexts – in the words of Barkun (2003, p. 4): „Everything is connected.“ – but also by the lack of scientific attributes. Conspiracy theories are indeed theories but without the formulation of a question, a hypothesis, an appropriate investigation procedure, a consistent theory as a result, verifiability, transparency, etc. (cf. Götz-Votteler & Hespers, 2019, p. 35ff.; Schmiede et al., 2023, p. 441).

Although there are now numerous scientific publications, popular articles, educational videos, and guides with some key messages available to the general public to expose the (un)truth, conspiracy theories do not simply stop at the initial stage of their spread, but continue to proliferate across countries. This may be because various human needs can be satisfied by believing in conspiracy theories. Douglas et al. (2017) speak here of epistemic, social, and existential needs or motives. As causal explanations, conspiracy theories satisfy the need for curiosity, especially in the absence of consistent information about events and their consequences (*epistemic motives*) (cf. *ibid.*, p. 538). *Social motives* are primarily about recognition or confirmation. People who believe in conspiracy theories are often frustrated and disappointed by the events around them. But the belief helps them to make new contacts much more quickly and to break out of social isolation by becoming respected members of the community. This strengthens the inner cohesion of such a community – the followers belong to the "awakened" or "knowledgeable" – and leads to a collective feeling of superiority (cf. Butter, 2023, p. 112ff.; Kaindel et al., 2022, p. 12f.; Douglas et al., 2017, p. 540). Rauch (2022) also mentions collective identity as a group-constituting characteristic and refers to the Aristotelian view of humans: „Menschen sind soziale Tiere.“ (Humans are social animals.) (cf. 2022, p. 51). Communication between them should take place in such a way that the common belief is constantly strengthened. This refers to the strategic use of language. The *existential motives* are linked to the need for control and security. People need to feel safe in their environment, they need to have a sense of control over themselves and over what is happening around them. This is why they long for a cause, for an explanation for everything that is beyond their control. The simpler and more accessible the explanation is, the more quickly it is accepted (cf. Douglas et al., 2017, p. 539). C. Kay et al. (2009, p. 265f.) speak of compensatory sources of control in a very narrow context and justify their existence or strength with the natural human need to perceive the world and its events as non-random, i.e. ordered, and at the same time the need to feel a certain degree of freedom of choice or even "power over events". The greater a person's sense of uncertainty, the stronger the compensatory sources - in this case, conspiracy theories.

Terms such as "frustrated", "disappointed" and "unsettled" point to an unavoidable part of dealing with conspiracy theories: emotions. However, they can be viewed from two perspectives. One perspective refers to already won/potential followers who are in a certain emotional state at the time (frustration, disappointment, insecurity, anger, fear, etc.) – usually triggered by a crisis of different character – and react accordingly to the conspiracy theories being spread (sharing, liking). It can be said that the conspiracy theories help them to cope with this unpleasant situation.¹ The second perspective concerns the conspiracy theories themselves and their power „die emotionalen Reaktionen auf bestimmte Ereignisse zu regulieren“ (to regulate emotional reactions to certain events) (cf. Götz-Votteler & Hespers, 2019, p. 41). Although the authors make this point in line with Wind Meyhoff's assertion that conspiracy theories can be a constant reaction to unprocessed events or traumas (2009, p. 78; cf. *ibid.*), it cannot be denied that (especially more recent) conspiracy theories also contain strong emotional components, either explicitly or implicitly.

In the empirical study, the focus is placed on one content-related and visual element of conspiracy theories, namely the Rainforest Alliance (RFA) frog label [cf. URL 1]. This label still enjoys a relatively high level of popularity, which is undoubtedly due to the digital age and the online world that is accessible to every user. The focus is on the thematization of this label in connection with conspiracy theories in German and Slovakian-speaking countries. In line with the above-mentioned characteristics of conspiracy theories, it is to be expected that the frog label conceals a network of diverse contexts that are somehow represented linguistically. These linguistic representations are the focus of attention. The analysis takes place at the more complex level, i.e. at the sentence level and possibly also at the text level, because contextual embedding offers a clearer insight into the facts and connections addressed. It should lead to an outline of the linguistic strategies that were used in the creation of the conspiracy theories in question to strengthen the beliefs of the followers and to convince as many new recipients as possible. The inclusion of two different linguistic areas as empirical sources enables their comparison and the identification of possible differences in the linguistic thematization of the element in question.

The viral spread of conspiracy theories is almost universally associated with the open digital world. Posting of controversial content is not always immediately recognizable at the beginning of the coverage and can therefore reach a very wide audience. The empirical material base also comes from the digital world. Useful posts (articles, videos, tweets, etc.) were found through a targeted search² on YouTube and in social networks such as TikTok, Twitter, Instagram, Odysee, VKontakte. About the scope of the empirical material base, it should be noted that it was not a question of quantity. The posts found included public contributions in the form of images and texts of varying lengths as well as short or longer videos. In both cases, the posts contain a variety of other elements (especially image and sound effects) in addition to linguistic means.

¹ The question of the susceptibility of people with certain personality traits and attitudes to conspiracy theories is not addressed here. However, reference can be made to certain studies, such as Hochreiter, 2022; Endrass et al, 2021; Hyzen/ Van den Bulck, 2021 and others.

² Initially, the keywords "Frosch, Froschsiegel, Frosch-Siegel, Froschlogo, Frosch-Logo, Rainforest Alliance" were used to search for posts via the Google search engine. Google referred to posts on the official website of the respective organisation or to posts from supporting shops and organisations as well as posts on YouTube and in social networks such as TikTok, Twitter, Instagram, Odysee, VKontakte. These were relevant for this study.

“Rainforest Alliance” and Its Goals

The frog label can be found on various foods and plants (e.g. coffee, tea, cocoa, bananas, citrus fruits, flowers, green plants, etc.). Some people notice it and are rather lukewarm about it, others also notice it but strictly reject such products. And then some don't notice it at all.

The frog label is both an identification mark and a certification seal of the Rainforest Alliance (RFA) (see Figure 1), an international organisation based in the USA, which aims to protect forests, biodiversity, and the climate, and to promote the improvement of livelihoods for rural populations [cf. URL 2]. This label therefore means that a product “contains one or more key ingredients produced with social, economic, and environmental sustainability” [cf. URL 3]. The social criteria include the prohibition of child and forced labor, appropriate payment (at least minimum wage or collectively agreed wage), access to drinking water and medical care for employees, etc. The ecological criteria include the limited use of harmful ingredients (minimum fertilization, biological pest control methods), the ban on certain ingredients (genetically modified plants, chemicals such as boric acid, fipronil, etc.) and the economic pillar focuses on the economic stability of rural communities [cf. URL 3; 4].

The choice of the frog as a label is related to the fact that it is considered a bioindicator. Where the frog lives, the ecosystem is healthy [cf. *ibid*]. The efforts of the organisation in question are in line with this.



Figure 1: The Rainforest Alliance certification label [cf. URL 3]

As already mentioned, opinions on this label differ. As far as the brief description is concerned, consumers should have a favorable opinion of food and plants bearing the frog label. Nevertheless, it can be observed that people largely favour shelves with products labelled frog. What is the reason for this?

An Empirical Study of Language Use in the Thematization of the RFA Logo in Conspiracy Theories

The long-recognized assertion in semantics that words in linguistic reality are always embedded in communicative situations and knowledge contexts leads to the assumption that an analysis at the level of the isolated word and its meanings can at best provide assumptions about the linguistically represented contexts (cf. Busse, 2012, p. 26-34; Busse, 2009, p. 112f.; Hanks/Pustejovsky, 2005, p. 63; Wittgenstein, 1958 as cited in Adler, 1976, p. 80). Nevertheless, the results of the word-level analysis are at least sketched to give an overview. At the word level, the following main areas were identified, which allow for certain considerations regarding the thematization of facts in the posts examined:

<p><i>Rainforest Alliance and linguistic units directly related to the organisation</i></p> <p><u>GERMAN</u>: Alliance-Siegel (Alliance label), Frosch (frog), Frosch-Logo (frog label), Froschlogo (frog label), Froschsiegel (frog label), Fröschen (froglet), Grünfrosch-Label (green frog label), Logo (label), Nachhaltigkeits-Siegel (sustainability label), Siegel (label), Symbol (symbol)</p> <p><u>SLOVAK</u>: symbol (symbol), žaba (frog), žabka (froglet), žabička (froglet), žaburina (marsh)</p>
<p><i>Linguistic units from the domain of vaccination</i></p> <p><u>GERMAN</u>: Impfproteine (vaccine proteins), Impfstoff (vaccine), Impfstoffherstellung (vaccine production), Impfung/-en (vaccination/s), Injektion (injection);</p> <p><u>SLOVAK</u>: dávka (dose), ihla (needle as injection), Karen 19 ~ Covid 19, vakcína (vaccination), včelička ~ ihla/ očkovanie (little bee as injection); pichnúť (prick), napichnúť (jab), zapichnúť (stab)</p>
<p><i>Linguistic units with direct reference to living beings in the broader sense</i></p> <p><u>GERMAN</u>: Auge (eye), Frauen (woman), Leute (people), Leben (life), Menschen (people), Menschheit (humanity), Organismus (organism), Körper (body), Hände (hands), Finger (finger)</p> <p><u>SLOVAK</u>: človek (man/human), dieťa (child), dievča (girl), ľudstvo (humanity), organizmus (organism), oko (eye), okolie (community), pán (master), plod (fetus), populácia (population), svet (world)</p>
<p><i>Linguistic units from the domain of social media and/or advertising, PR and marketing</i></p> <p><u>GERMAN, SLOVAK</u>: Artikel (article), Google, Instagram, Kommentar/-e/en (comment/-s), Meinung (opinion), Nachricht (message), Profil, Telegram, Video/-s</p>
<p><i>Proprietary and brand names</i></p> <p><u>GERMAN</u>: Bayer, Bill, Gates, Hayes, Holger, Lindt, Melinda, Monsanto</p> <p><u>SLOVAK</u>: Bažant, Bicom, Bill, Corgoň, Gates, Gemer, Heineken, Kelt, Martiner, Melinda</p>
<p><i>Verbs with direct reference to negative actions</i></p> <p><u>GERMAN</u>: erschrecken (scare), experimentieren (experiment), ignorieren (ignore), injizieren (inject), manipulieren (manipulate), packen (pack), reduzieren (reduce), saugen (suck), stimulieren (stimulate), suggerieren (suggest), überwachen (control), verabreichen (dose), verschweigen (conceal), vertuschen (cover up)</p> <p><u>SLOVAK</u>: klamať (deceive), ovplyvňovať (influence), propagovať (propagandize), zabíjať (kill), zamaskovať (mask), zlikvidovať (destroy)</p>

Table 1: Typical and interesting word representatives in the posts on analysed conspiracy theories

As already mentioned, it is necessary to analyse words in their immediate (linguistic) environment. It is the construction of a sentence that can be embedded in a larger whole, i.e. in the text or the utterance in question, and it is these more complex embeddings that are of greater importance when it comes to reconstructing the common message and applying

certain strategies in the process. Accordingly, interesting examples are filtered out of the sample below, which are analysed about the sentence level with overlaps to the text level. Since the examples are multimodal texts in which different modes are involved in the construction of meaning, it is also necessary to consider these, especially when reconstructing a shared message and thus also a strategy used.

The following examples have been chosen:



Figure 2: Excerpt from a post on Twitter.com [URL 5]

The first example (Figure 2) shows several aspects to be addressed. Firstly, one can point to the frequent beginning of the introduction of the topic in the (discussion) round. Either a question is deliberately asked about the potential recipients' point of view on the RFA frog label, or the discussion of the topic also begins with words in the sense of an answer to the need to address the topic (other examples: *What is behind the frog label???* *What are the frog label and Rainforest Alliance all about?*; *I think you all know this label and if not, what is your first thought, how does this label affect you?*; *Did you notice that? Have you read about it? It's the Rainforest Alliance logo, which is [...]* vs. *About my previous video, you asked me to go into more detail on this topic. What does it all mean when there's this frog label on a food?*) This way of introducing a particular topic to the group is a suitable starting point, as the open question stimulates discussion, brings heterogeneous opinions with useful information, and steers the discussion in a certain direction thanks to the different opinions. It is not uncommon for only questions to be asked, with the group of recipients itself being

divided into pro and con groups according to the comments. The author of the post here is acting as the initiator of the discussion without communicating his own opinion.

As far as the formal structure is concerned, attention should be drawn to the last two sentences. They begin with a finite verb as a predicate, a position of the predicate that is characteristic of sentence types other than declarative sentences, or one that is typical in spoken language but more common in informal speech. The latter feature is also supported by the elided subject in the sentence constructions in question. In terms of content, the sentence level is particularly important because of the syntagmatic connections between the words, which could only be surmised in the previous section as they were considered in isolation. Linguistically interesting are connections such as *the frog label has changed* (change - no longer positive?); *Bill Gates has his hands in the game* (responsibility); *reduce humanity by all means* (reason/goal); *be manipulated*; *there active substances that are prohibited elsewhere* (manner). Except for the first connection, all the others are directly negatively charged and gradually lead more and more into causal relationships. A more complex linguistic level makes it possible to confirm the conclusions assumed at the word level about conspiracy theories in connection with the RFA frog label. Direct or indirect references in the analysed post and everywhere in the posts found point to Bill Gates and the conspiracy theories associated with his name, be it forced vaccination in the context of the coronavirus pandemic, be it the implantation of a microchip to control humanity, be it the reduction of the world population and, last but not least, membership of the secret elite ~ the Deep State.

The end of the article is also worth mentioning. It is a complex sentence that begins with the main clause *Must each draw his conclusion [...]* and ends with the second main clause *I can only pass on my knowledge*. At first glance, perhaps meaningless sentence constructions allow conclusions to be drawn about the linguistic behavior of the person answering. In the conclusion, the answerer assumes an alibi position by, on the one hand, asking the potential recipient of the shared content to form their own opinion about it and, on the other hand, justifying their position as a sharer of content such as this, which is actually their own and is shared freely. At the same time, the responder puts himself in the position of a knower, as he *can pass on his knowledge*.

Another type of post can be seen in Figure 3. It is a post on the TikTok platform, which influences its nature, namely a short video. It consists of an image accompanied by a musical component over ten seconds. The post contains a wide range of means to convey the content shared, including a variety of visual and verbal means that complement each other and multiply their impact. In principle, the post can be divided into two fields, a white field dominated by visual means and a black field with verbal means as a central component.

The dominant visual device is the RFA label in the centre of the image, which is directly linked to two non-linguistic reality objects in a white field. In one case it is *Gates* (marked in red), in the other case it is the vaccine manufacturer *Pfizer* (marked in blue). Although these two words are at the edge of the field, they are not in the shadow of the label due to their visual representation. Although the article contains little detailed information about the connections between the verbal means in the white field, the use of the keywords *Gates* and *Pfizer* at least roughly conveys them. The intention of vaccination, formulated in conspiracy theories, to equip people with microchips and thus control them or reduce their numbers through vaccination, is shifted in the post to the cultivation and production of food with the frog seal as an RFA certification label. The black background field "communicates" with the white field of the post. Two syntactically incorrect sentences with different typographical

designs complement the visually communicated content. As in the previous example, the sentences lack punctuation. In addition, the subject is missing in the second sentence, although it is more than obvious from the previous sentence. The verbal elements that are crucial to the writing are capitalised and in a different colour. Compared to the previous post, the RFA frog label is explicitly linked to the coronavirus pandemic by the words *mRNA-IMP(F)STOFF* (mRNA-vaccine) and *Pfizer*. Foods with the RFA certification label take the position of the vaccine in the post and take over the baton, so to speak, in the conspiracy against humanity. The previous support of RFA by the Bill and Melinda Gates Foundation establishes a direct link to this person. A similar connection is also made in the Facebook post as well as in the video on YouTube, as can be seen in Figures 4 and 5.



Figure 3: Post on TikTok.com
[URL 6]



Figure 4: Extract from a video on YouTube.com
[0:11] [URL 7]

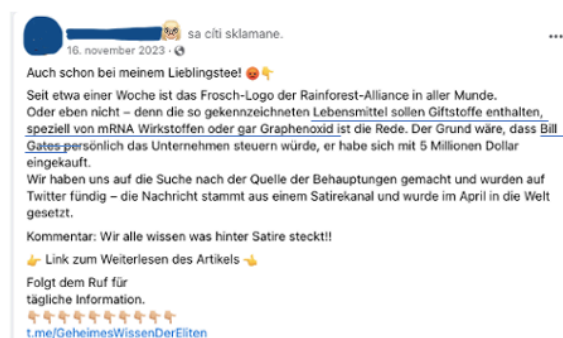


Figure 5: Post on Facebook.com [URL 8]

In the Slovakian-speaking scene, the situation is no different. In the posts, the RFA frog label is first associated with Bill Gates and then wrapped in negative labels associated with this person. In Figure 6, this is linguistically realised in the form of indirect speech that refers directly to the "culprit": *Of course, that's why Gates said that anyone who didn't "volunteer to be injected with an experimental vaccine" will get it in the food*... This statement is linguistically very expressive and seems to have the following intentions: reference to vaccination as a forced act (*not to be voluntarily injected* → *get the "vaccine" in food*), to the illogical behavior of some people (voluntarily engaging in something during the experimental phase) and to the division of the recipient group into those who voluntarily allow themselves to be vaccinated and those who do not. This fact is clarified by the continuation of the post: *normal people get it* explicitly expressed.

As far as the linguistic level is concerned, it is again the sentence level that is decisive, which opens up the connecting lines between the units of extra-linguistic reality represented by the words. As far as grammar is concerned, errors in comma placement can be observed within the sentence structure; in addition, the non-standardised pejorative verb *opichať* (prick with a vaccine) occurs in the contribution, and the farewell phrase *Tot' vsio!*, which is mainly used in spoken language and informal linguistic communication and, in the sense of "that's all", confidently concludes the contribution with a sufficient amount of facts in the background, also deserves attention.

The visual tool, a coffee bag with the RFA frog label, is mainly used to disseminate the other article about the issue under discussion and to defend the views presented.

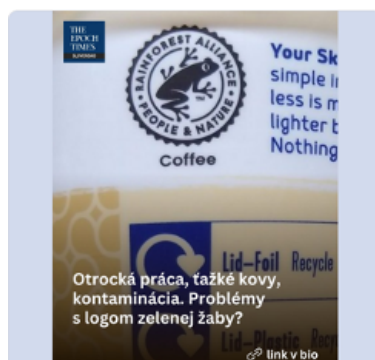
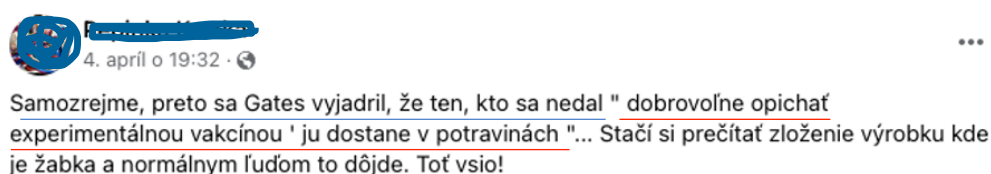


Figure 6: Post on Facebook.com [URL 9]

Figure 7 below illustrates a common means for visual contributions, a self-shot video in a grocery shop. A person walks through the shop and films the shelves with price tags showing the frog label. Above the video is the article itself. Even the title hints at the author's creativity by associating the *LIDL* grocery chain with the pejorative *ŽABURINA* (meaning swamp, marsh), as a reflection of the strong presence of food with the RFA frog label. The pejorative reference to these products is reinforced by the participle *I kvákajúca* (croaking). Both the article and the video are about ice cream products that are considered *GMO products*. What is striking here, however, is the linguistic rendering of the presumed relationship between these products and their "manufacturer" (due to the relationship X comes from Y), which includes the author's opinion. The combination of the English word *kill* and the personal name *Bill* expresses this very clearly and also indirectly refers to the conspiracy theory related to this person about the intention to reduce humanity (kill → fewer people → reduction).

In terms of language, the capitalisation of thematically important words is striking, as is the detailed description of the situation in the grocery shop, including a lively account of the conversation with the shop assistant, which is supplemented by a series of emoticons. In connection with the course of the conversation described and the emoticons used, this passage of the article can be seen through the eyes of the author as a kind of confession of her point of view.

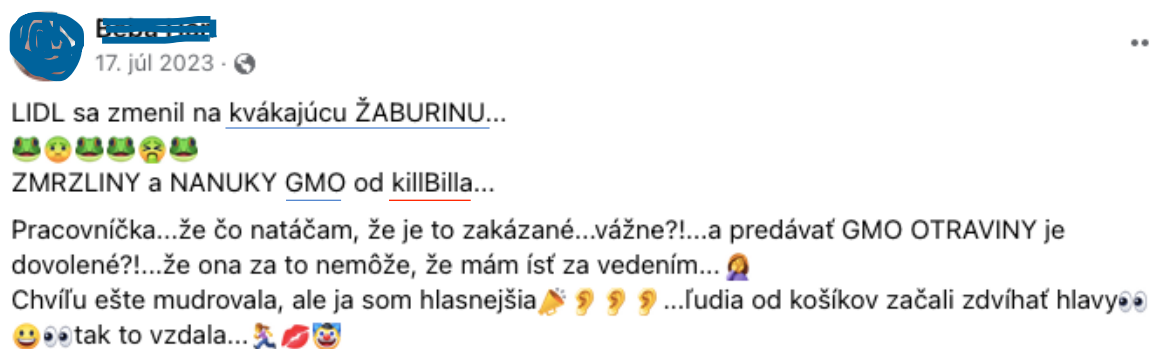


Figure 7: Post on Facebook.com [0:10] [URL 10]

Finally, Figure 8, which shows the most comprehensive linguistic and content-related representation of the connections between the RAF frog label and the associated conspiracy theories, should be discussed. It is a YouTube video that is mainly monologued by one person and is accompanied by several images during the speech. The title of the video suggests that the author wants to place the frog label of the RFA in close connection with Bill Gates at the centre in an explanatory manner (*GREEN FROG ON FOOD? Bill Gates is behind it! What does this mean for us? RAINFOREST ALLIANCE*). The most important passages from the 15-minute video have been filtered out to illustrate the intertwining of the elements of the conspiracy line.



ZELENÁ ŽABKA NA POTRAVINÁCH? 🐸 Stojí za ňou Bill Gates.

Čo to pre nás znamená? RAINFOREST ALLIANCE

21 tis. zhladnutí • pred 8 mesiacmi



Podpor líkorn, odberom, zdieľaním či komentom ďakujem OSOBNÝ VÝKLAD KARIET V prípade, že by ste mali záujem ...

Myslím si, že toto logo všetci poznáte a ak nie, tak aká je vaša prvá myšlienka, ako na vás pôsobí toto logo?

[...] v poslednej dobe behom posledných pár mesiacov vlastne sa zobrazuje už skoro na každej potravine.

Čo to znamená, hej? Takže pome si to rozobrať.

Toto logo vlastne ah je ah spoločnosť, ktorá sa volá Rainforest Alliance, ktorá sa prezentuje samozrejme veľmi dobre a veľmi pozitívne, predstavuje v podstate určitú certifikáciu udržateľnosti a prezentujú to takým štýlom, [...].

[...] hej, veľmi fajn to pôsobí samozrejme, [...].

[...], ah čo nie je fajn, je to, ten fakt, že kto vlastne túto značku podporuje, kto za tým reálne stojí, kto to financuje, a teda financuje to ah samozrejme, preto vám o tom točím video, financuje to Bill Gates a tá jeho v podstate nadácia Bill a Melinda Gates.

Takže viete, kto sú v podstate títo ľudia, ah s čím sú hlavne spájaní, hlavne teda Bill Gates s čím bol v poslednej dobe spájaný, hlavne teda počas Karen 19, že chcel v podstate ahm, nemôžem všetky veci hovoriť na rovinu, ale chcel v podstate zapichnúť ihlu do celého ľudstva, hej to bol ten zámer, [...] on stál sa za tým vývojom vakcín a tak ďalej, [...] veľmi veľmi rozpráva o depopulácii, čo znamená akoby zníženie populácie, hej, chce sa zbaviť ľudí.

[...] bola tu určite taká kríza s tým, že jednoducho nie každý sa chcel dať napichnúť tou ihlou počas počas toho Karen 19, takže oni hľadajú teraz rôzne iné prostriedky, ako sa akoby ako zasiahnúť ah to ľudské telo [...].

[...] začína akoby ďalšia kríza v tomto celom, [...] bude to kríza práve, čo sa týka jedla, pretože jedlo bude dostupné, ale ide o to, že aké jedlo. Jedlo, ktoré nás ničí, zabíja, [...].

[...] tá Rainforest Alliance [...] geneticky modifikujú všetky potraviny [...].

[...] potraviny, ktoré akoby prechádzajú ešte nejakým tým procesom [...].

[...] testovali sa tieto potraviny ah frekvenčným zariadením Bicom, ktoré odhalilo prítomnosť spike proteínu, oxidu grafénu a rôznych herbicídov a toxických látok, a veľa práve týchto látok bolo nájdených vo, no v tých ihlách, ktoré nám chceli pichnúť ah počas Karen 19.

Takže ako isto mnohí už viete, aké boli následky Karen 19, [...]a týka sa to aj nás, ktorí sme neni ah pichnutí tou ihlou, pretože ah v tej látke, v tom koktaily smrti je namiešaná aj taká látka, ktorá práve pôsobí z tých ľudí, ktorí si to dali aj na ostatných, hej, ktorí to nemajú, takže ah akoby sa to povedzme šíri ďalej, hej, ovplyvňuje to aj nás nás okolie a jednoducho teraz to už môžeme priamo nájsť aj v tej strave.

I think you are all familiar with this label and if not, what is your first thought, how does this label strike you?

[...] in fact, it's been showing up on just about every food item lately in the last couple of months.

What does that mean, hey? So, let's break it down.

This logo actually ah is ah a company called the Rainforest Alliance, which presents itself very well and very positively, of course, it is basically a kind of sustainability certification and they present it in that style, [...].

[...] hey it looks very nice of course [...].

[...] ah what's not fine is this, the fact that who's actually supporting this brand, who's really behind it, who's funding it, and therefore is funding it and, of course, that's why I'm making a video about it, it's funded by Bill Gates and his in Bill and Melinda Gates Foundation.

So you know who are these people basically, ah, what are they mainly associated with, especially Bill Gates has been associated with recently, especially during Covid 19, that he wanted to basically, ah, I can't say all the things straight out, but he wanted to basically prick a needle in all of humanity, hey that was the intention, [...] he was behind the development of vaccines and so on, [...] he talks very, very much about depopulation, which means like reducing the population, hey, he wants to get rid of people.

[...] there was definitely such a crisis with the fact that just not everybody wanted to be pricked with that needle during that Covid 19, so they're now looking at various other means of how to sort of like how to hit ah that human body, [...].

[...] it's like another crisis is starting in this whole, [...] it's going to be a crisis just in terms of food, because food will be available, but it's a question of what kind of food. The food that destroys us, kills us [...].

[...] Rainforest Alliance [...] genetically modify food [...].

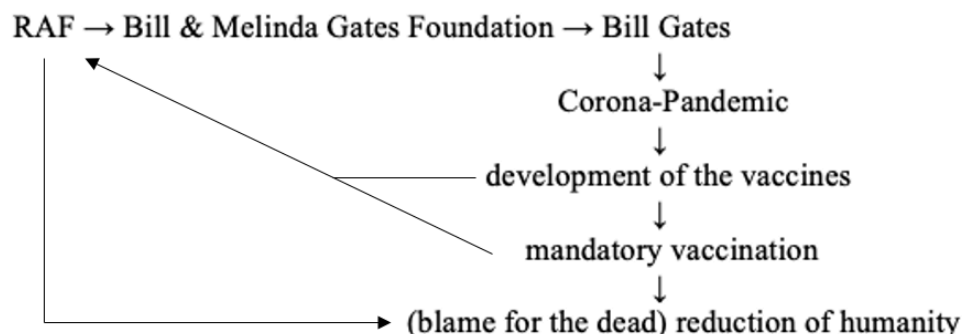
[...] foods that seem to be going through some kind of process [...].

[...] these foods were tested with ah frequency Bicom device, which revealed the presence of spike protein, oxide graphene and various herbicides and toxic substances, and many of these very substances were found in well in those needles that they wanted to stick us with ah during Covid 19.

So as many of you know what the consequences of Covid 19 have been, [...] because it has triggered one huge wave of people in the area who are paying the price, and slowly we all will pay the price, and it affects us who are not pricked by that needle, because in that substance, in that cocktail of death, there is a substance mixed in that substance which is also acting from those people who have put it on their own others, hey, who don't have it, so ah like it's spreading out, let's say, hey, it's also affecting us around us and just now we can find it directly in that food as well.

Figure 8: Excerpts from a video on YouTube.com and their translation [URL 11]

Using the filtered passages from the video, it is possible to observe how the author slowly introduces the potential recipients to the story of the conspiracy. With positive introductory words about RFA and its label, the author establishes a connection to Bill Gates as a person, from where she can bounce straight to his "secret plans." The following diagram shows the key moments of the storyline:



From a linguistic point of view, the video shows typical characteristics of spoken communication. It is obvious that the author has not memorised the text, but is speaking it freely, so to speak. The frequent repetition of words, the presence of correction phenomena, the relatively frequent use of the pause element *ah/ahm*, the incorrect positioning of sentence elements, and the ellipses of some sentence elements create an impression of authenticity. The recipient can quickly identify with the author.

At the vocabulary level, a variable repertoire is used in the video. Neutral words are used, technical terms from the field of laboratory examinations/tests that support the facts presented in the video, and finally many negatively charged words that sometimes appear aggressive when embedded in sentence structures. They usually refer to the presented intentions of the main actor in the video, Bill Gates, such as: *basically, he wanted to prick a needle into all of humanity; he wants to get rid of people; they are now looking for various other means to sort of like how to hit ah this human body; the food that destroys us, kills us; in that substance, in that cocktail of death*. The entire account is complemented by the accompanying stories about other people, which is undoubtedly a strong element in confirming the information presented and influencing opinion. However, these are stories in the sense of "I heard that XY happened to a certain person", etc., without naming the source or the actors. Similarly, the video often presents factual claims without any explanation or elaboration.

Conclusions

The following conclusions can be drawn from the analysis:

- The inclusion of the RFA frog label in the conspiracy theory(ies) in the posts was only based on previous contacts between the Bill and Melinda Gates Foundation and the Rainforest Alliance, i.e. without any respective scientific evidence or deeper insight into the messages shared. The RFA's frog label was thus demonised by the retrospective transfer of Bill Gates' intentions as stated in other conspiracy theories. The following topics were discussed: the responsibility for the coronavirus pandemic and the financial support for the development of (mRNA) vaccines to control or reduce the number of people, and the transfer of the function of vaccines to Rainforest Alliance-certified food with the same intention. Paradoxically, the posts not infrequently began by referring to

the (once) positive opinion of the RFA organisation, but then moved into the "offensive" phase by sharing the secret plans associated with the RFA organisation. The frequent termination of posts is also striking. At the end of the post, the post author often personalises the shared facts as their own opinions, which may not be accepted by the surrounding community, or divides the potential recipients into believers and non-believers (knowers and unknowers). On the side of the believers or the knowledgeable, the author defends his/her position and that of the knowledgeable. At the same time, he/she shows that anyone - like him/her - can change his/her view and become a believer or a knower.

- The presentation of the thematised facts and contexts was carried out using variable means which, depending on the form of presentation, showed either a predominance of verbal means or a balanced relationship between verbal and visual/acoustic means. The multimodal nature of the posts thus allows the different modes to participate in the construction of the message. As far as the investigation at the linguistic level is concerned, it should be noted that the linguistic representation of the Rainforest Alliance label in posts in the digital world had a comparable starting point in both languages. These were the above-mentioned conspiracy theories or conspiracy theories centred around Bill Gates, which were disseminated in a more or less modified form. A rather heterogeneous selection of words was used for their linguistic presentation, including both neutral and expressive units. When comparing the two languages, it was found that the vocabulary in the Slovakian-language posts was more expressive and, in some cases, showed signs of verbal aggression. The aim seemed to be to arouse negative emotions such as fear and indignation in potential recipients. Conversely, several creative expressions were observed in both languages that contributed to the attractiveness of the message communicated. Possibly to make the posts stand out, deviations in grammar were observed almost everywhere, which mainly included the absence of punctuation or the omission of relevant parts of sentences, presumably to convey the thematised facts as concisely and predictably as possible. Surprisingly, the visuals played a rather subordinate role, and the author relied more on various acoustic effects.

Acknowledgment

This work was supported by the Slovak Research and Development Agency under the Contract no. APVV-22-0221.

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***The Influence of Miniaturization of Urban Family Structure on
Residential Interior Space Layout in China***

Jingwen Yang, Tsinghua University, China
Limin Song, Tsinghua University, China

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The change of family structure is one of the important factors affecting the change of interior space layout of urban residences in China. Since the establishment of the People's Republic of China, the urban family structure in China tends to be smaller, which is closely related to factors such as the acceleration of modernization, changes in traditional core family models, and long-term implementation of family planning policies. The main trends in the evolution of small-sized families structures in China are the empty nest of the elderly, the DINK families, and the solitary living of young people. we have identified three core needs for interior spaces within these small families: leisure and livability; independence and efficiency; convenience and intelligence. Based on their needs, analyze of three types of small-sized families from six aspects: entrance hall; living room; bedroom; dining room; kitchen; bathroom.

Keywords: Miniaturization of Family Structure, Residential Interior Design, Residential Indoor Space Layout

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Introduction

This paper provides a supplement to the research on the interior design of miniaturized residential buildings in urban China, and provides a reference for the spatial layout of interior design of miniaturized families. The research is from the China National Social Science Fund Art Project "70 Years of New China Interior Design (1949-2019)", led by Professor Song Limin of the Department of Environmental Art of the Academy of Arts and Design, Tsinghua University. And the first author of this article is a postdoctoral fellow in the Department of Environmental Art of the Academy of Arts and Design, Tsinghua University, and serves as the leader of the research group of "70 Years of New China Interior Design (1949-2019)".

With the rapid development of social economy, the size of urban households in China has undergone great changes, which is mainly reflected in the fact that the size of urban households has become smaller, and many small families have been separated. In the traditional Chinese residential culture, the concept of family is particularly important, in the dwellings we can often see a family living in groups. Modern life is constantly changing, people cannot live together from generation to generation as before, and various factors such as studying, working, and living may cause migration. New trends and lifestyles have made personalized living fashionable, coupled with people's decreasing dependence on family, young people's desire for independence, multi-generational living is no longer common, and smaller family sizes have become an inevitable trend. The traditional way of living in large families has not adapted to people's needs, and small families are generally accepted.

Residence is the carrier of material space of the family, and the layout of interior space is an important research issue in interior design. Any changes in social structure, cultural value system, and moral outlook will put forward new demands for the layout of their residential interior space. With the different family structures, the layout of residential interior space needs to be reasonably designed according to the characteristics and needs of family members to improve living comfort and functionality.

1. The Evolution of the Miniaturization of the Family Structure in the 70 Years of the People's Republic of China

The changes in the family structure are the epitome of social changes, and economic changes and social development have brought about new changes in China's family structure. The miniaturization of the family structure is closely related to urbanization, industrialization, land reform, agricultural collectivization, political movements, living conditions, family planning, population mobility, and the rural contract responsibility system. In 1947, the average family size in China was 5.35 people, and in 1953, the average family size in China was 4.33 people, and in the 50s, 60s, and 70s of the last century, it was generally stable between 4.23 and 4.43 people. From the late 80s to the early 90s, with the implementation of family planning and the change of family awareness, the number of only children increased, the average family population gradually declined, and the family structure showed a trend of miniaturization. In 1982, the average family size was 4.4 persons, and in 2005 it was 3.13 persons, and the average household size decreased by 1.27 persons in 23 years, a decrease of 28.86 per cent. In 2020, the average household size dropped to 2.62 people, and the urban family structure became more miniaturized (Figure 1).

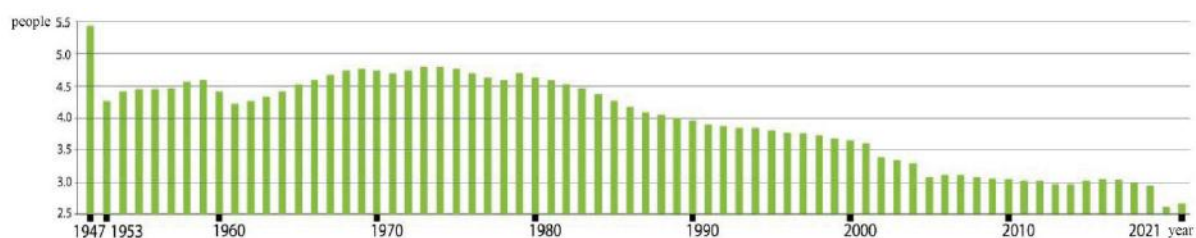


Figure 1: Trend of household size from 1947 to 2021

(Chart source: Self-drawn by the author. Data source: The data in 1947 are counted by the Population Bureau of the Ministry of Internal Affairs of the Republic of China, and the data for the rest of the years are from the official website of the National Bureau of Statistics <http://www.stats.gov.cn>)

1.1 From the Founding of the People's Republic of China to the Early Period of Reform and Opening Up (1949–1977): Rise-Decline(short-Term) -Rise-Decline

During the period from 1947 to 1979, the size of households decreased significantly compared with the pre-liberation period, showing a large fluctuating trend of "rise-decline(short-term) - rise - decline" (Figure 2). In 1977, there was even a slight increase in household size compared to 1953. From the perspective of the distribution of household size, the proportion of households with 7 or more persons decreased significantly compared with that before liberation, and the proportion of households with 1 or 2 persons increased relatively. During this period, the changes in the size and distribution of household size in China were affected by multiple factors such as the collective economic system, living conditions, medical level, natural disasters, and family planning policies. The changes in the type structure and algebraic structure of the family are the result of the weakening of the family's production function and the impact on the authority of the patriarch under the influence of land reform, agricultural collectivization, and various rectification movements.¹

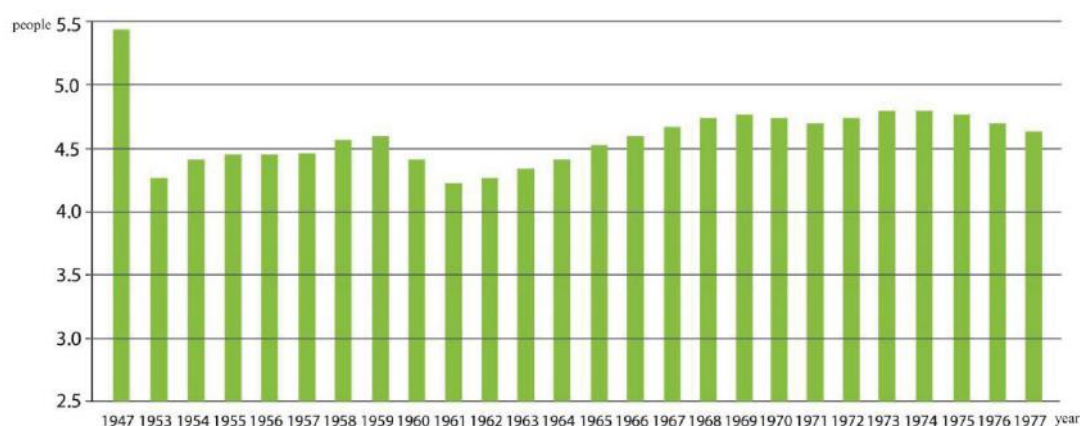


Figure 2: Trend of household size from 1947 to 1977

(Chart source: Self-drawn by the author Data source: The data in 1947 are counted by the Population Bureau of the Ministry of Internal Affairs of the Republic of China, and the data for the rest of the years are from the official website of the National Bureau of Statistics <http://www.stats.gov.cn>)

¹ Wang Jianhua. (2019). Miniaturization or Nucleus: Changes in Family Structure in the 70 Years of New China. *Chinese Social Sciences Review*, 02, 118-130

(1) The Abolition of Feudal Land Ownership

The size of the family depends on two factors: the rate at which the family is differentiated and the rate at which the population grows. If the rate of family differentiation is faster than the population growth, then the size of the family will gradually increase; If the rate of household differentiation is roughly equal to the rate of population growth, the size of the family is basically the same; If the rate of family differentiation is slower than the rate of population growth, then the size of the family will increase.² After the liberation, the feudal land ownership system was abolished, and each member of the family was equally given a share of land and other means of production, making it possible to establish a household without worrying about the lack of means of production and the inability to establish a household. People's traditional concepts have also been improved by the impact of land reform, and the equal distribution of the means of production has made family members feel equal rights and status.

(2) Improvement of Medical Standards

After 1953, the standard of living also improved compared with the early period of liberation, and the government gradually paid attention to medical and health care, which greatly reduced the mortality rate of the population, and the population growth rate continued to increase. According to statistics, in 1957, the birth rate of the whole country was 3.40%, the death rate was 1.08%, and the natural growth rate was 2.23%; In 1965, the corresponding data were 3.81%, 0.86%, and 2.85%; In 1975, they were 2.31%, 0.73% and 1.58% respectively; in 1979, they were 1.79%, 0.62% and 1.17% respectively. During this period, political turmoil continued, economic development was slow, and the people's living standards were low, but the overall family size expanded compared with the early days of liberation. After 1974, the size of China's households began to decline gradually. The family planning work, which began in the 70s, played a key role in controlling the birth level and household size in urban areas.

1.2 After the Reform and Opening Up (1978–2000): Gradually Shrinking and Showing a Downward Trend

After the reform and opening up, the decrease in the size of the household is closely related to the decrease in the birth rate (Figure 3). In 1979, the second session of the Fifth National People's Congress proposed the policy of "encouraging a couple to have only one child". The strict implementation of the family planning policy reduced the birth rate during this period and suppressed the growth of the urban population; The rapid development of industrialization and urbanization has led to the migration of population, the separation of family members of the floating population, and the increase in the number of young people starting their own families, which has further led to an increase in the proportion of empty-nest families and single-person families in rural areas. In the context of the improvement of education level and the status of women, the concept of marriage and childbearing has also changed, and the willingness to have children has declined. The statistics released by the State Council in the fourth quarter of 1983 showed that small families consisting of two husbands and wives or parents and their children were gradually replacing the traditional large families, and the distribution of household sizes was

² Song Ping. (1998). Analysis of the trend of family size miniaturization in China and its impact on consumption. *Journal of Demography*, 03, 27-30

concentrated in two-person and three-person households, accounting for about 70 percent of the total number of households in the country. It is an indisputable fact that China's family structure tends to be nucleated and miniaturized.³ From 1982 to 1990, the main trend of change in the nuclear family was towards the nuclear family of both parents. The total number of families with three or more generations is 17%, which is the most important type of family after the nuclear family.⁴

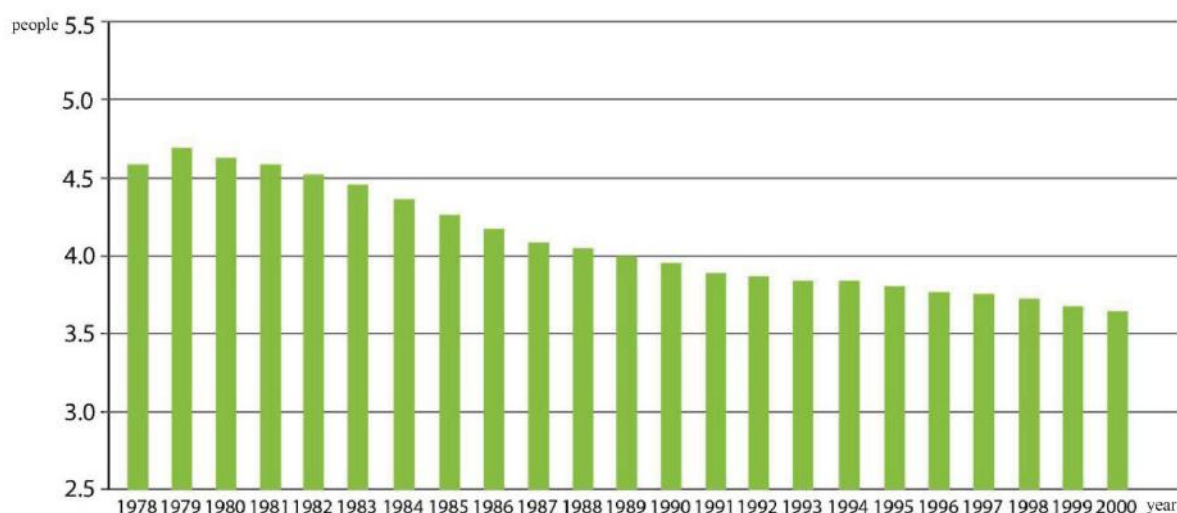


Figure 3: Trend of household size from 1978 to 2000
(Chart source: Self-drawn by the author Data source: Official website of the National Bureau of Statistics <http://www.stats.gov.cn>)

(1) Implementation of Family Planning Policies

In September 1982, the 12th National Congress of the Communist Party of China (CPC) established family planning as a basic national policy in China, which was written into the Constitution in December of the same year. Late marriage, late childbearing, fewer births, and eugenics were promoted, thus systematically controlling population growth. With the reform of the economic and political systems, the decentralization of economic power caused by population mobility and widespread employment has laid a material foundation for family differentiation. The advancement of women has also led to new changes in the relationship between family members. The most prominent is the relationship between mother-in-law and daughter-in-law, which is often the main factor that leads to the division of large families into small families. A series of factors, such as differences in values and lifestyles between the younger generation and the elderly, have accelerated the pace of family differentiation.⁵ In May 1991, the CPC Central Committee and the State Council issued the Decision on Strengthening Family Planning Work and Strictly Controlling Population Growth, aiming to further implement the family planning policy and strictly control population growth. In 1979, the household size was 4.65 persons, which dropped to 4.51 in 1982, 3.93 in 1990, and 3.59 in 2000. The factor leading to the decline in household size is, first and foremost, family planning.

³ Mu Guangzhong. (2002). *Challenging Loneliness-Empty Nest Families*. Shijiazhuang: Hebei People's Publishing House

⁴ Zha Ruichuan, Zeng Yi, Guo Zhigang. (1996). *Analysis of the data of China's Fourth National Population Census*. Beijing: Higher Education Press

⁵ Song Ping. (1998). Analysis of the trend of family size miniaturization in China and its impact on consumption. *Journal of Demography*, 03, 27-30

(2) Female Education Level Increased and Fertility Intention Decreased

With the further improvement of economic living standards, the improvement of women's education level and the change of values, the willingness of Chinese people to have children is also decreasing.⁶ Under the combined effect of strict family planning policies and Chinese people's fertility intentions, China's birth rate continued to decline during this period.⁷

(3) Rural Household Contract Responsibility System

After the reform and opening up, although the reform of the rural household responsibility system for the production of goods has partially restored the production functions of peasant families, the rapid expansion of industrialization and urbanization has played a role in weakening the agricultural production and income distribution functions of traditional large families, and has further promoted the separation of the floating population from the rural families.⁸

1.3 The Period of Deepening Reform and Opening Up (2000–2021): Decline-Steady Development-Decline

Since the beginning of the 21 st century, China has joined the WTO, and China's reform and opening up has been further intensified. People's living standards and education levels are constantly improving, regional population movements are accelerating, and values are constantly diversified. During this period, household sizes were still decreasing (Figure 4). During this period, the population movement led to a large increase in the phenomenon of empty nests and living alone, and the change of people's concept of marriage and childbearing in modern society led to an increase in the proportion of single-family and couple nuclear families, a decrease in the proportion of standard nuclear families, and a decrease in the size of family households. The volatility in 2005 was the result of a combination of economic, social, demographic and institutional factors. There was no further development after 2010.

⁶ Hou Jiawei. (1989). Changes in fertility intention in the Chinese population: 1980-2011. *Social Sciences in China*, 04, 78-97

⁷ Wang Dewen. (2007). Changes in labor supply and demand in the stage of low fertility and China's economic growth. *Chinese Population Science*, 01, 44-52

⁸ Wang Tianfu, Wang Fei, Tang Youcai, Wang Yangyang, Pei Xiaomei. (2015). Land collectivization and the structural transformation of the traditional extended family in rural areas. *Social Sciences in China*, 02, 41-60

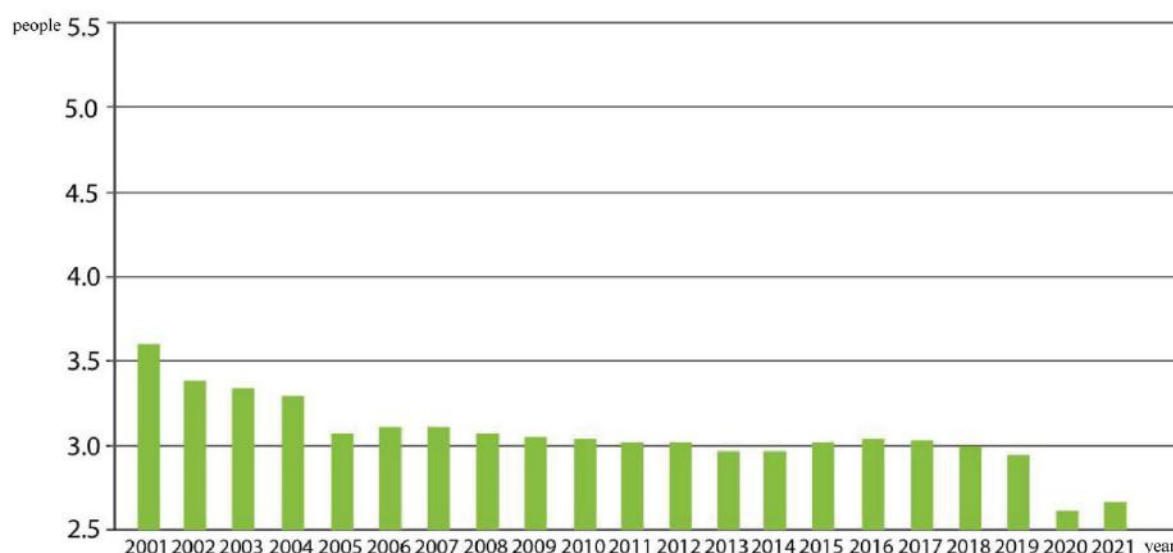


Figure 4: Trend of household size from 2001 to 2021
 (Image source: Self-drawn by the author Data source: Official website of the National Bureau of Statistics <http://www.stats.gov.cn>)

(1) Sustained Development of the Economic Level

From the perspective of economy and society, China's economy continues to develop, and people's lifestyles are constantly changing. The education level continues to increase, the pressure brought about by urbanization, the fertility rate is decreasing, and the concept of marriage and childbearing is diverse. The proportion of single-person households and couples in nuclear households has increased, resulting in a decrease in household size.

(2) Continuation of the Family Planning Policy

The long-term family planning policy "encourages a couple to have only one child", and these children are more likely to live with their parents and form a direct family. This is because today's only children face the need to buy a house and raise children after they start a family. The increase in the proportion of direct family members indirectly promotes the growth of household size. Population migration also has a great impact on changes in household size, and the separation of family members and the economic independence of children brought about by population migration will lead to an increase in empty nest families and single-person families. It was not until 2011 that China launched the policies of "two children for two children", "two children for a single child" and "two children for all", that the decline in the birth rate was alleviated, which had an impact on the size of households.

(3) Population Movement

During this period, the number of single-person households and couples nuclear families increased, and the standard nuclear families decreased significantly, reflecting the changes in people's concepts and choices of marriage and childbearing in the process of modernization and urbanization. Large-scale population movements in the context of urbanization have also led to the growth of single-person households, couple nuclear families, and intergenerational households. Compared with 2000, the total proportion of households with three persons and one household increased in 2005, while the proportion of households with four or more persons decreased. In 2010 and 2015, compared with the data of the 2005 survey time, the

proportion of one-person, two-person, six-person or more households increased, and the proportion of one-person households in 2015 decreased compared with 2010, and the proportion of three-person and four-person households decreased. This is related to the family planning policy and the floating population, which has grown up to be the only child 10 years after the implementation of the family planning policy, and faces the need to buy a house and raise children after starting a family. Migrants returning to their hometowns or moving their families to large cities have promoted the growth of the number of households to a certain extent.

2. Types of Homes With Miniaturized Structures

The proportion of households with smaller structures is increasing. "In both capitalist and socialist industrial societies, the small family is the defining feature of all Second Waves".⁹ With the shift in family functions and traditional concepts, the nuclear family, which was once the standard of the modern age, is a minority form. Coupled with the acceleration of the process of modern cities, the change of the traditional nuclear family model, the prevalence of the pursuit of self-worth, the change of the concept of marriage and love, and other factors, all kinds of small families abound. In addition, the continuous expansion of the size of various small family groups has become a common topic at present. New trends of thought and different lifestyles have made personalized living fashionable.

2.1 Empty Nest Families in the Elderly

Deterministic trends such as shrinking family size and increasing life expectancy have led to population ageing becoming a fundamental feature of global population development.

According to the data of the seven population censuses on the official website of the National Bureau of Statistics, it can be seen that the proportion of the population aged 65 and above in the total population is 4.4%, 3.6%, 4.9%, 5.6%, 7.0%, 8.9% and 13.5% respectively, showing an upward trend(Figure 5). The National Health Commission predicts that the proportion of the elderly population in China will reach 34.9% in 2050. China is one of the countries with a relatively high degree of population aging in the world, with the largest number of elderly people, the fastest aging rate, and the heaviest task to cope with population aging.

⁹ Alvin Toffler. (1996). *Creating a New Civilization: The Politics of the Third Wave*. Shanghai: Joint Publishing House

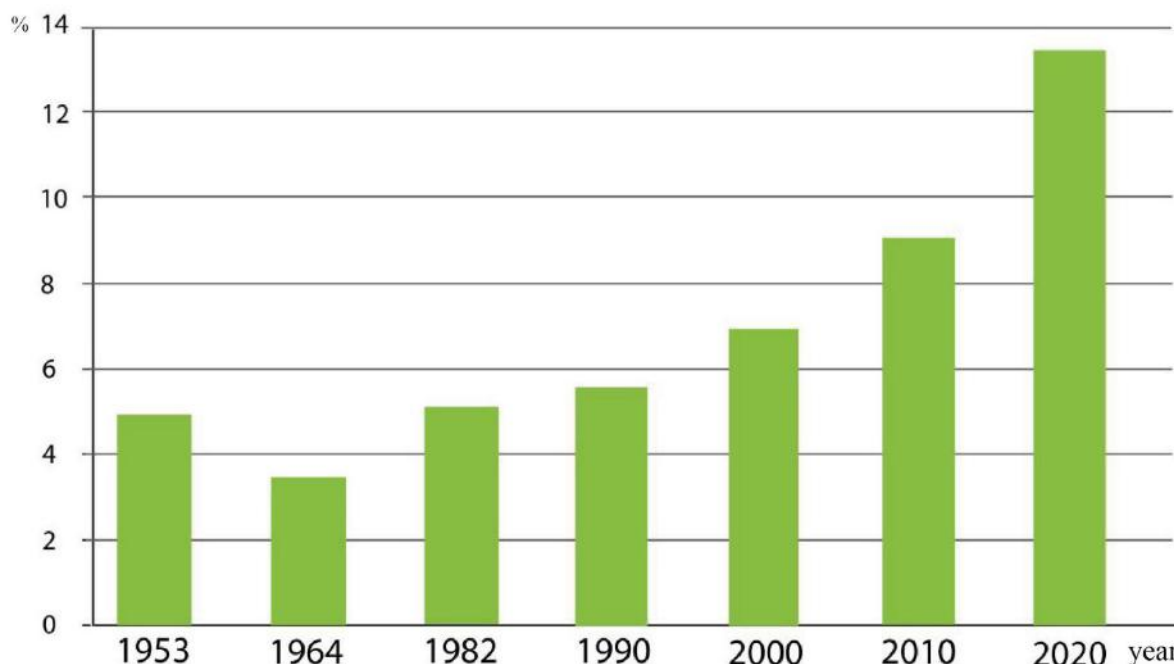


Figure 5: The trend of the proportion of the population aged 65 and above in the total population in the seven censuses in China

(Chart source: Self-drawn by the author. Data source: Official website of the National Bureau of Statistics <http://www.stats.gov.cn>)

In recent years, empty-nest elderly families have also shown a trend of younger age, and a large number of middle-aged and elderly couples have entered the empty-nest period early due to the fact that their only child is studying, working, and getting married. The miniaturization of the family structure is also the reason for the increase in the number of empty nesters. Compared with the traditional perception of empty nesters, young empty nesters have a higher level of education and more cultural backgrounds. You don't have to help your grandchildren, so you have more free time; There is a retirement salary, there is a more stable economic foundation, and there are also higher requirements for residential space.

2.2 Dink Families

Changes in social stratification and mobility have accelerated changes in individual lifestyles and changed family patterns. The fertility willingness to raise children to prevent old age is weakening, the traditional concept of marriage and childbearing has changed, and many families choose not to have children, and this kind of family is called Dink family. The Dink family began to appear in the more economically developed areas of China in the 80s. Most of them are composed of middle-aged couples with higher education, who pay more attention to their careers and personal emotional life, and voluntarily do not have children. They have higher incomes and no burdens, can afford higher housing prices, and have higher requirements for living environment and residential space. The large size, rapid development trend and proportion of this type of family cannot be ignored. According to the data of the seventh national census in 2020, the current size of the Dink group in China is 187,555,100, accounting for 37.95% of the total number of households (494,157,400).

2.3 Youth Living Alone in Households

According to data released by the National Bureau of Statistics, the preliminary forecast is that by 2030, the number of people living alone may reach 150-200 million, and the rate of living alone may exceed 30%, of which the number of young people aged 20-39 living alone may increase from 18 million in 2010 to 40 million to 70 million in 2030, an increase of about 1-2 times. As can be seen from Figure 4, the average household size of the 2020 Seventh Population Census decreased by 0.48 compared to the 2010 Sixth National Population Census. According to the "New Era of Living Alone" report released by the Shell Research Institute, the composition of people living alone has changed significantly, and "urban youth living alone" has been added to the previous "lonely widow living alone". In 2010, the proportion of young people living alone in 20-49 years old was as high as nearly 5 percent, and the number of people living alone in cities increased rapidly, nearly 4 percent of the people living alone lived in cities, and nearly 3 percent of the people living alone were concentrated in the top 20 cities of the number of people living alone. By 2030, the number of people living alone may reach 150 million to 200 million, and the rate of living alone may exceed 30%.¹⁰

3 The Impact of the Miniaturization of Family Structure on the Layout of Residential Interior Space

The core needs of the above three types of miniaturized families for residential interior space are: leisure and livable, independent and efficient, convenient and intelligent.

3.1 The Influence of Elderly Empty-Nest Families on the Layout of Residential Indoor Space

We are focus on the core needs of leisure and livable elderly empty nest families, and exploring the design and application of residential interior space layout:

The demand for interior space in elderly empty nest households is mainly reflected in comfort, convenience, and safety. They need a spacious, bright, and quiet living environment to meet their living and spiritual needs.

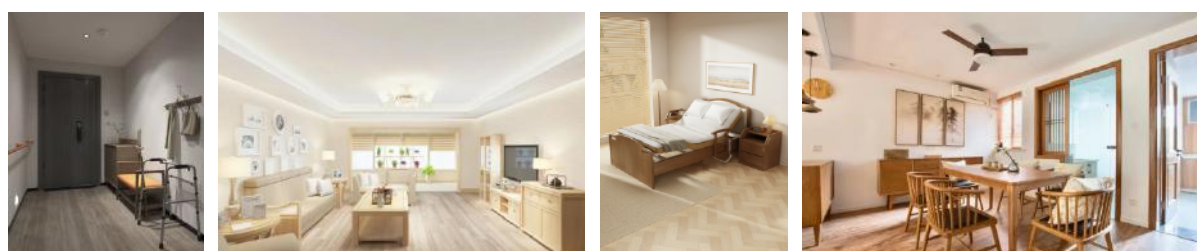


Image 1: Entrance hall, Image 2: Living room, Image 3: Bedroom, Image 4: Dining room
(From left to right)

(Image source: <https://www.xiaohongshu.com>)

¹⁰ <https://research.ke.com>

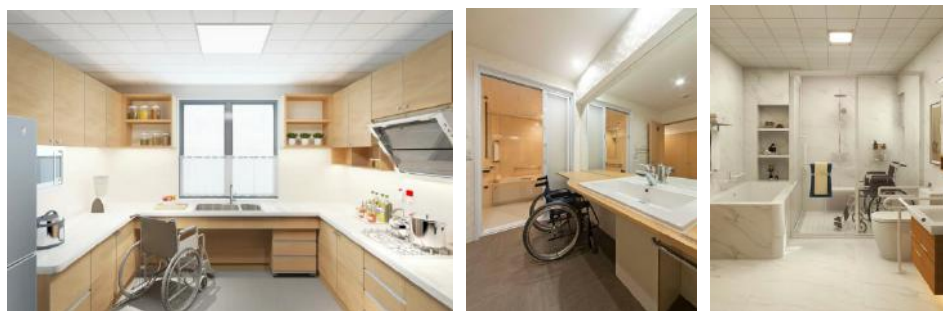


Image 5: Kitchen, Image 6: Bathroom 1, Image 7: Bathroom 2
(From left to right)

(Image source: <https://www.xiaohongshu.com>)

Entrance hall: Entrance hall should be designed to be spacious and bright, making it easy for the elderly to enter and exit. The ground should be flat, non slip. And entrance hall also need equipped with shoe stools and armrests to facilitate the elderly to change shoes and avoid tipping over (Image 1).

Living room: Elderly empty nest families have a greater demand for living room use. They will have hobbies such as singing, dancing, painting, calligraphy, and so on. In the living room, most of these kind of families choose to configure a slightly harder sofa cushion, which protects the waist of the elderly. Tea tables should avoid sharp edges and corners, and calligraphy tables, flower racks, and so on. should be set up according to the different hobbies of the elderly (Image 2).

Bedroom: The bedroom should set with handrails, emergency call systems, and night lights at the head of the bed to ensure the safety of the elderly (Image 3).

Dining room: The dining room should be equipped with comfortable dining tables and chairs, and also need the cabinet for easy storage (Image 4).

Kitchen: The kitchen worktop should be spacious enough to prepare and place food (Image 5).

Bathroom: Bathroom should use anti-skid bricks to ensure the flatness of the ground. The shower area should be spacious, with safety components such as toilet handrails and bathroom folding stools (Image 6&7).

3.2 The Influence of the DINK Family on the Layout of the Interior Space of the House

We are focus on the core needs of independent and efficient for DINK families, and exploring the design and application of residential interior space layout:

The demand for interior space in residential areas by DINK families is mainly reflected in diversification, comfort, and quality. They are more inclined to create a comfortable home environment that suits their lifestyle and have higher requirements for the quality of interior space.

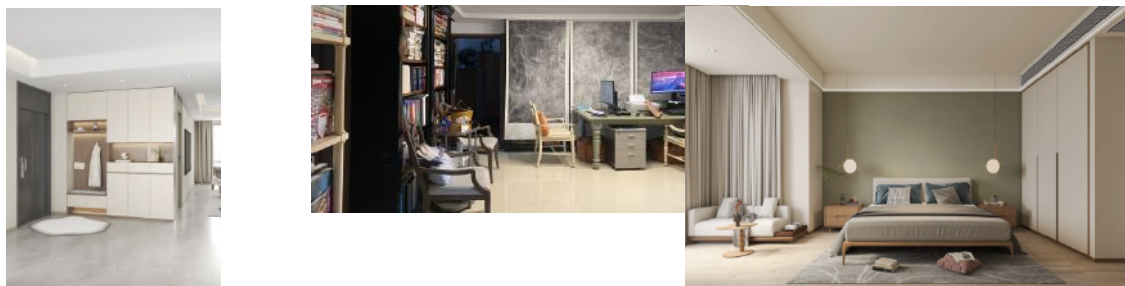


Image 8: Entrance hall, Image 9: Living room, Image 10: Bedroom
(From left to right)

(Image source: <https://www.xiaohongshu.com>)



Image 11: Dining room&Kitchen, Image 12: Bathroom
(From left to right)

(Image source: <https://www.xiaohongshu.com>)

Entrance hall: Entrance hall can be designed as a storage function, providing storage space such as coat racks and shoe cabinets (Image 8).

Living room: Work and study occupy a large proportion of the life of DINK families, and the study has become an important space for their residential use. Most DINK families choose to integrate the functions of the living room and study, achieving efficient space utilization and making the space transparent and flexible (Image 9).

Bedroom: Bedroom design places greater emphasis on comfort and privacy (Image 10).

Dining room: The dining room should be designed as a multi-functional area, which can be used for family dinner, work or leisure, and has strong flexibility (Image 11).

Kitchen: The utilization rate of kitchens in DINK families is relatively low. And simple, open style kitchens are more popular (Image 11).

Bathroom: Bathrooms place more emphasis on comfort and practicality, and some DINK families may place two toilets to meet the need for separate use at the same time (Image 12).

3.3 The Influence of Young People Living Alone on the Layout of Residential Interior Space

We are focus on the core needs of convenient and intelligent the solitary living of young people, and exploring the design and application of residential interior space layout:

The demand for interior space in young solitary families is mainly reflected in intelligence, multifunctionality, and personalization. On the basis of showcasing individuality, it is necessary to ensure the functionality and flexibility of the space, such as adjustable partitions and multifunctional furniture.



Image 13: Entrance hall, Image 14: Living room, Image 15: Bedroom, Image 16: Dining room (From left to right)

(Image source: <https://www.xiaohongshu.com>)



Image 17: Kitchen, Image 18: Bathroom (From left to right)

(Image source: <https://www.xiaohongshu.com>)

Entrance hall: Entrance hall can highlight personalized design, such as decorative paintings, decorative items, to showcase the personal taste of solitary residents (Image 13).

Living room: The living room can be designed as an open space, reducing furniture decoration and releasing space functions with smart homes. It can be used for small gatherings or efficient office work, meeting different scenarios use (Image 14).

Bedroom: The design of bedroom should pay more attention to sound insulation and creates a quiet and private resting space (Image 15).

Dining room: The dining room can serve both dining and work functions, improving space utilization efficiency (Image 16).

Kitchen: The kitchen is equipped with basic cooking facilities and storage space to meet the daily cooking needs of solitary residents (Image 17).

Bathroom: On the basis of meeting cleaning needs, the bathroom can be equipped with intelligent toilets and bathtubs. Under the pressure of busy work, the bathroom has gradually become the favorite home space for young people to release their pressures (Image 18).

Conclusion

Whether it is the elderly empty-nest family, the DINK family or the young family living alone, it is the expression of everyone's understanding of life, the reflection of values and the ideal vision of home. The layout of these three types of families in the entrance hall, living room, bedroom, dining room, kitchen, and bathroom can be differentiated according to their specific needs and lifestyle. Only by deeply understanding the reasons and needs of each type of household, and effectively reducing the gap between designers and users in environmental

awareness, can we continuously improve the environment and quality of residential indoor spaces.

Acknowledgements

This research was support by the National Natural Science Foundation of China (Grant No. 22BG113) and the National Publishing Foundation of China. I also would like to express my sincere gratitude to Professor Song Limin of the Department of Environmental Art & Design Academy of Arts & Design, Tsinghua University for his valuable comments, which have greatly improved this paper.

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Resources

Data sources are from official website of the National Bureau of Statistics:

<http://www.stats.gov.cn>

"The New Era of Living Alone Report" by Beike Research Institute: <https://research.ke.com>

Contact email: 2602919682@qq.com

***A Hands-On Classroom Activity to Understand Organic Waste Handling With
Conventional Biotechnology: Handout Nata De Orange***

Arifah Novia Arifin, Universitas Negeri Malang, Indonesia
Utami Sri Hastuti, Universitas Negeri Malang, Indonesia
Muri Sapta Sari, Universitas Negeri Malang, Indonesia
Herawati Susilo, Universitas Negeri Malang, Indonesia

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The application of handling organic waste that applies conventional biotechnology concepts to students in high schools is still very low. Moreover, the concept of biotechnology innovation is one of the difficult subjects for students. The contextuality of developing learning resources for biotechnology innovation must be improved through students' understanding of science and hands-on activities. The aim of developing the "Nata De Orange" handout is to improve students' psychomotor skills in biotechnology concepts. This type of research is Research and Development (R & D) using the Plomp development model with stages a) preliminary research, b) prototyping phase, and c) assessment phase. This handout contains practical activities for making nata from orange juice using *Acetobacter xylinum* and opportunities for other materials, including household organic waste. The results show that this handout is valid, practical, and effective for improving students' psychomotor skills. The students' response to the use of this handout was very positive, which is a measure of the success of implementing the Nata de Orange handout. Apart from that, this handout can be a reference for science teachers to carry out biotechnology innovation practicums in making nata.

Keywords: Classroom Activity, Biotechnology, Science Education

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Introduction

Currently, countries around the world are reforming curricula and education to prepare students for the future (Li & Wang, 2024; So et al., 2024). Indonesia, since 2022, has started implementing the Merdeka curriculum at various educational levels. This curriculum change impacts the learning process, including biology teaching and learning. Moreover, the concept of biotechnology innovation is one of the most difficult subjects for students. Teaching and learning biology with the topic "biotechnology innovation" in the Merdeka curriculum indeed requires instructional media that help students understand concepts and apply them in daily life. The development of quality teaching materials that are aligned with curriculum standards can guide teachers and students to apply instructions and help students learn (Aris et al., 2025; Gleason et al., 2011).

The application of handling organic waste that applies conventional biotechnology concepts to students in high schools with hands-on activities and teaching material is still very low. Hands-on activities are an educational approach that involves students actively engaging in the learning process through practical experiences (Monegro et al., 2024; Schwichow et al., 2016). This method is particularly effective in biology education as it allows students to apply theoretical concepts of science in the real world, which can enhance their understanding and skills (Gericke et al., 2023). Hands-on activities equipped with learning materials are very helpful in the learning process (Idris et al., 2022). Learning materials in the form of handouts are needed for hands-on activities. Therefore, learning material in the form of handouts is needed that can guide students during the learning process of "biotechnology innovation."

A handout is written instructional material containing important concepts of a learning material concisely. Handouts are considered effective teaching materials because they focus on one topic and are presented in a simple format, making it easy for students to understand (Sidik et al., 2024). The content of handouts should ideally include contextual issues related to students' environments to make learning more engaging and comprehensible. Teachers can also develop materials based on research findings (Khotimah et al., 2021). One effective teaching material is handouts, as they provide specific and concise information to students. Teachers can design lessons centered around real-world problems related to biotechnology innovation, such as issues of environmental sustainability, public health, or food security. Students can then be encouraged to identify, analyze, and seek solutions to these problems using biotechnology concepts, particularly conventional biotechnology. Practical sessions specifically designed to introduce concepts of conventional biotechnology can be integral to this learning approach. With engaging, relevant learning experiences focused on developing students' skills in the field of biotechnology, they become better prepared to face future challenges and opportunities. This is because they not only grasp biotechnology concepts theoretically but also gain practical experience in applying them in real-life contexts.

According to Ferris (2010), the psychomotor domain is the domain associated with aspects of skills involving the functions of the neuromuscular system and psychological functions. This domain consists of (a) readiness: which involves the preparedness of an individual to perform a certain skill or activity; (b) imitation: which involves the ability to observe and replicate actions or behaviors demonstrated by others; (c) habituation: refers to the process of acquiring skills through repeated practice until they become automatic or habitual. It involves refining movements and developing muscle memory. (d) Adaptation: involves the ability to modify or adjust movements or behaviors in response to changing circumstances or

environmental conditions. It requires flexibility, problem-solving skills, and the ability to make quick adjustments. These components of the psychomotor domain are essential for the development and mastery of various physical and practical skills, ranging from simple tasks to complex activities requiring precision and coordination (Meilani & Aiman, 2020). This research aimed to examine the usefulness of a handout Nata de Orange as teaching material to improve students' psychomotor skills on biotechnology concepts through hands-on classroom activity.

Method

Research Design

This type of research uses the Plomp development model with stages: a) preliminary research (need assessment teacher and student), b) prototyping phase (design product): an experiment was conducted at the microbiology laboratory FMIPA Universitas Negeri Malang, c) assessment phase was tried out to three groups of students, namely experimental, control positive and control negative. The research design is explained in Table 1.

Table 1. Research Design

Intervention	Posttest
X1	O1
X2	O2
X3	O3

Adapted from (Cohen et al., 2018)

Explanation

X1: Experiment

X2: Control Positive

X3: Conventional

O1: Psychomotor skill score with handout nata de orange

O2: Psychomotor skill score with control positive class

O3: Psychomotor skill score with control negative class

Data Analysis

The research samples are second-semester tenth-grade students in the biology class of the year 2023 at SMA Negeri 3 Makassar, South Sulawesi, Indonesia. These students were divided into three groups, namely the experiment, which had 36 students, the control positive which had 36 students and the control negative group, which had 35 students. The experimental group learned using the handout nata de orange that had been developed based on the results of prior laboratory experiments. Experimental groups received treatment in the form of PINISI learning model. Control positive groups received treatment in the form of the Problem-Based Learning model and control negative groups received conventional learning. Three groups will be observed using psychomotor ability observation sheets during the learning process. The outcomes of the psychomotor skills observation sheet were then compared between the three groups and used Kruskal-Wallis to analyze the data.

Result and Discussion

The results of the experimental phase are divided into three steps: (1) preliminary research, (2) prototyping phase design product, (3) assessment phase:

Preliminary Research

The results of preliminary research in November-December 2022, show that the percentage of biology teachers at Makassar City High Schools who understand the characteristics of interdisciplinary problem-based learning is only 5.9%, while those who do not understand it amount to 94.1%. This is due to their constraints in designing instructional materials: innovation biotechnology. The analysis of students' biology learning outcomes also indicates that they are still relatively low. Surprisingly, 75% of the students are facing difficulties in understanding the material, particularly in grasping the concepts of technological innovations in biology.

Prototyping Phase Design Product

The prototyping phase design product is activities for the preparation of handout nata de orange based on nata de orange research conducted at the Microbiology Laboratory of FMIPA, University Negeri Malang. The handout nata de orange is designed using Canva Pro, while the content is created using Microsoft Word 365. Arial is the font used in this handout, with the required size and 1.5 spaces. This handout is illustrated with images of research results printed on A4 format paper weighing 120 grams. This handout is divided into three parts: the front (cover, introduction, and table of contents), the contents (introduction, material, practicum instructions, evaluation questions, and structured assignments), and the closing part (reference list, and the author's curriculum vitae). The nata de orange handout was developed as a learning tool for students in biology learning in Class X on biotechnology innovation presented in Figure 1.

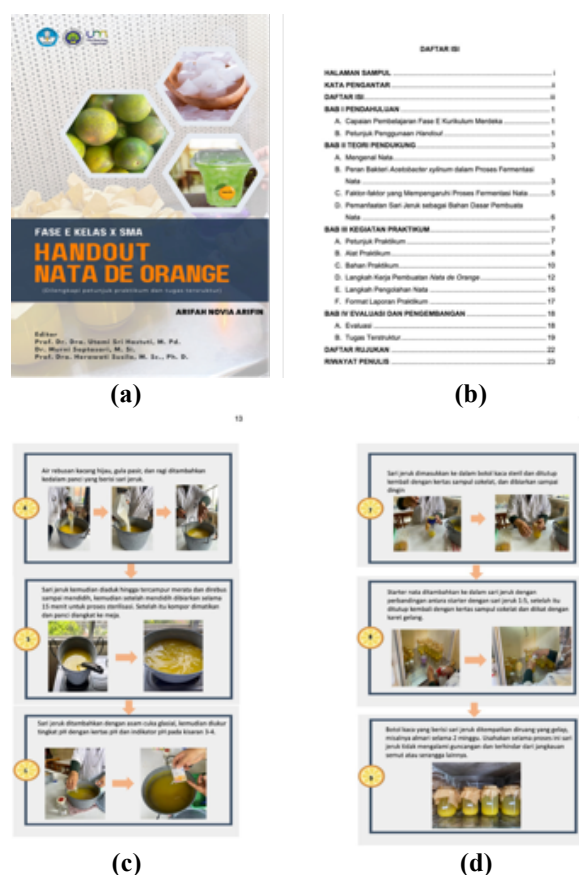


Figure 1: Handout Nata De Orange

Remark: (a) cover, (b) list of content, (c) (d) instruction for hands on activity

The development phase produced the handout nata de orange content based on laboratory study findings. At this phase, the handout prototype that had been designed during the design phase was developed as needed. Furthermore, expert validation was done to determine the validity and reliability of the handout.

Table 2. Validation and Reliability Scores of the Nata De Orange Handout by Microbiology Expert

No	Assessment Aspect	Validity Score	Reability Score
1	Content Validity	98,33	88,89
2	Presentation Validity	96,67	88,89
3	Contextual	100	100
	Mean	98,33	92,59

Table 2 shows that the validity score of the Handout Nata De Orange obtained from the expert validator in microbiology is 98.33%, indicating that the developed Nata De Orange handout falls into the valid category. Additionally, the reliability score falls within the range of 92.59%, which is above the required percentage for inter-observer agreement of 70%. These results indicate that the developed handout nata de orange is both valid and reliable.

Table 3. Validation and Reliability Scores of the Nata De Orange Handout by Instructional Media Expert

No	Assessment Aspect	Validity Score	Reability Score
1	Graphic Desain	97,14	88,89
2	Language Appropriateness	100	100
	Mean	98,57	94,45

Table 3 indicates that the validity score of the Handout Nata De Orange obtained from the instructional media expert validator is 98.57%, showing that the developed Nata De Orange handout falls into the valid category. Furthermore, the reliability score falls within the range of 94.45%, which is above the required percentage for inter-observer agreement of 70%. These results indicate that the developed handout nata de orange is both valid and reliable.

Assessment Phase

The handout nata de orange with hands-on classroom activity was used and evaluated on grade X students in the odd semester of SMA Negeri 3 Makassar, South Sulawesi, Indonesia. The use of this handout was carried out during the practicum learning activity with the sub-theme of biotechnology innovation. The experimental group used this nata de orange handout with the PINISI learning model. The positive control class used the Problem-Based Learning (PBL) model without using the handout nata de orange. The negative control class uses conventional learning without using the handout nata de orange. Practicum activities are carried out in the school laboratory and nata de orange observation is carried out every week for 2 weeks. Assessment of students' psychomotor abilities is carried out during the learning process. The effectiveness of the handout nata de orange implementation in learning was measured by the difference between the scores of the psychomotor skills students (Figure 2).

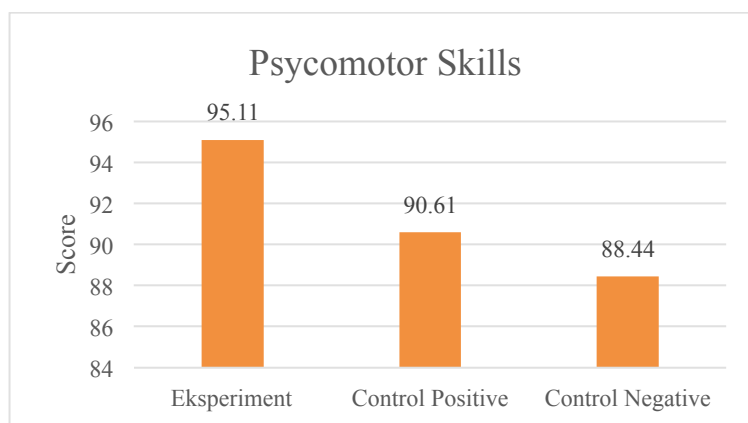


Figure 2: Score of Psychomotor Skills Students

Figure 2 the above shows that the average psychomotor skills score of students for the positive control class (PBL) is 90.61 and the negative control class (conventional) is 88.44 in the medium category. The average psychomotor skills of students in the experimental class (using nata de orange handout, hands-on classroom activity and PINISI learning model) was 95.11 which was included in the high category. This shows that the nata de orange handout is effective in improving students' psychomotor skills.

Table 4. Results of Descriptive Statistic with Kruskal Wallis
Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Psychomotor Posttest	107	81.7532	12.10532	61.90	100.00
Group Learning Model	107	1.9907	.81837	1.00	3.00

Table 5. Results of Mean Rank with Kruskal Wallis
Ranks

	Group Learning Model	N	Mean Rank
Psychomotor Posttest	Eksperiment	36	89.31
	Control Positif	36	53.61
	Control Negative	35	18.09
	Total	107	

Table 6. Results of Hypothesis Test with Kruskal Wallis
Test Statistics^{a,b}

Psychomotor Posttest	
Kruskal-Wallis H	94.945
df	2
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: Group Learning Model

Based on the summary of the Kruskal Wallis test results table 4 (Descriptive Statistic), table 5 (mean ranks) and table 6 (test statistics for hypothesis test), it is evident that the p-value is 0.000, which is less than the significance level (α) of 0.05. Therefore, Hypothesis H1, which states that there is an influence of the nata de orange handout on students' psychomotor biology learning outcomes, is accepted.

Discussion

Hands-on classroom activity with handout nata de orange in the experimental group showed that students' psychomotor skills were higher and significantly different compared to other groups. The hands-on classroom activity is an effective classroom method not only to explain many biological processes but also to encourage student curiosity about learning by doing (Idris et al., 2022). Students who are directly involved in learning can develop their science knowledge and skills (Deehan et al., 2024). In the experimental group, students carried out practical activities using handout nata de orange which were equipped with practical instruction and structured questions related to problems in their environment. Students in the positive control group only used the PBL learning model with student worksheets without using the nata de orange as did the students in the negative control group, who only studied conventionally. The use of nata de orange handouts can improve students' psychomotor skills, which has an impact on improving student learning outcomes.

Biotechnology innovation learning in high school biology requires teachers to be able to develop and apply student knowledge through direct, hands-on activities. Scientific concepts with hands-on activities can help students solve their daily problems (Ramnarain, 2015). Science is very important as the foundation of human thinking (Itzek-Greulich & Vollmer, 2017), which has an impact on psychomotor ability (Nazia & Gani, 2024). One of the efforts to improve psychomotor skills and learning performance is to carry out practical activities using learning resources.

Several studies have shown that hands-on classroom activity can improve student learning performance (Chen et al., 2020; Fakaruddin et al., 2024). Student hands-on activities should be used more in learning special materials (Maričić et al., 2019), such as biotechnology innovation in biology class. Learning can be said to be successful if the implementation of learning has a positive impact on students (Sahronih et al., 2019). This impact is a direct result of an increase in student learning outcomes, including attitudes, knowledge, and skills in science. Hands-on classroom activity is an effort that can provide a real experience to students in applying the mastery of concepts and theories in science directly.

Based on the results of the study, there are differences between the experimental class and the positive and negative control classes. The experimental class obtained higher science and psychomotor ability scores compared to the two control classes. This is based on students' understanding of science by using handout nata de orange as a learning resource. With handouts in hand, students can at any time relearn the material and instructions for the stages of practicum activities to create effective learning conditions (Avval et al., 2013). The psychomotor abilities that students develop in this training can be used to solve problems in real-life situations (Maspul, 2024), which are integrated with science education. This is supported by handouts developed from the results of laboratory research and student needs (Nerita et al., 2017). Handouts could give the student a general overview of the educational material.

The difference between the experimental class and the control class. The experimental class experienced a better improvement in science process skills compared to the control class. Improving students' skills reflects mastery of the material. The skills that students develop in science education are science process skills, which are skills that can be used to solve problems in real-life situations (Thompson et al., 2024), which are integrated with science education, including biotechnology. This condition can be achieved by using teaching

materials that can help improve students' science skills (Bulut Ates & Aktamis, 2024). The handout nata de orange was a handout that is prepared because of laboratory research, that is prepared based on relevant materials, and is equipped with practicum instructions, including the process of making nata de orange, as well as pictures of tools, materials, and the manufacturing process. In addition, this handout is also equipped with practice questions and structured tasks. The structured assignment developed in this handout has the goal that students can design research on making nata from various kinds of fruits besides sweet oranges that are not used up during the harvest to increase students' creativity and students' psychomotor skills.

Secondary educational levels, in which the students have a significant need to develop the elements of psychomotor skills (Begam & Tholappan, 2018; Nicholls et al., 2016). Students' psychomotor skills can be improved by psychomotor ability indicators, namely students' learning. Psychomotor abilities can be improved by psychomotor indicators namely, (1) readiness, students who use the handout nata de orange, can understand and prepare learning and the implementation of hands-on activities well. (2) Imitation in this indicator, students can show the ability to observe and follow the stages of implementing hands-on activities to make nata. (3) Habituation in this indicator, students with repeated exercises will improve their movements and develop their muscle memory so that they understand better for the next practicum activities. (4) Adaptation in this indicator, students can adjust to the stages that will be carried out in hands-on activities.

The handout nata de orange applied with hands-on activities contains factual problems that can be found by students around their environment (Maspul, 2024). This handout is presented as the result of laboratory research that contains environmental problems around students and how to overcome them with conventional biotechnology. The learning process using handouts can reduce students' boredom in learning and increase motivation in learning so that it can improve students' psychomotor skills. The work steps in the practicum instructions are complemented by photos of the researcher and the results of the research obtained by the researcher. This is evident from the results of research conducted by researchers in the experimental class, students who use the handout nata de orange have the highest average score compared to other classes. The results show that this handout is valid, practical, and effective for improving students' psychomotor skills. The students' response to the use of this handout was very positive, which is a measure of the success of implementing the handout nata de orange. Apart from that, this handout can be a reference for science teachers to carry out biotechnology innovation practicums in making nata.

Conclusion

The results show that this handout is valid, practical, and effective for improving students' psychomotor skills. The student's response to the use of this handout was very positive, which is a measure of the success of implementing the handout nata de orange. Apart from that, this handout can be a reference for science teachers to carry out biotechnology innovation practicums in making nata.

Acknowledgments

We extend our sincere gratitude to the Higher Education Financing Agency (BPPT) and the Education Fund Management Institution (LPDP) for generously funding this research

through the Ministry of Education, Culture, Research, and Technology of Indonesia scholarship program for doctoral studies, under the reference No. 2010/J5.2.3./BPI.06/10/2021. Gratitude is also extended to the Faculty of Mathematics and Natural Sciences at the Universitas Negeri Malang, where the researcher study.

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Contact email: arifahnoviaarifin@unm.ac.id

Rohingya Refugees to Indonesia: An International Legal Perspective

Arsya Amarlaily Arbiyanti, Universitas Darussalam Gontor, Indonesia

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In Indonesia there is a popular discussion about Rohingya refugees. Rohingya is an ethnic group living in Myanmar, specifically in the Rakhine or Arakan region. Cases related to the Rohingya began to surface in 1982. The Burmese Citizenship Law did not include the Rohingya among the 135 ethnicities recognized as indigenous citizens. All Rohingya ethnic groups do not receive Myanmar citizenship, which makes them stateless. This stateless status robs Rohingya of their rights in life. They cannot have a decent life. Many have witnessed death, mutilation and rape, as well as whole villages, what they called home, burning to ashes. Even the Rohingya have been designated as the world's most persecuted minority. This resulted in waves of refugees, one of whom came to the Aceh, Indonesia region. According to the findings of this study, Refugees acceptance to Indonesia in line with some Human Rights Conventions that had been ratified by Indonesia. Namely, The Convention Against Torture 1984; The International Convention on the Elimination of All Forms of Racial Discrimination (ICERD); The International Covenant on Economic, Social and Cultural Rights (ICESCR), and some more. These international instruments are extremely important for the protection of refugees and asylum seekers. This paper aims to reveal the legal perspective of Rohingya refugees in Indonesia. This study is a literature review that employs a critical analysis method called content analysis. Furthermore, this research can be a reference for policy makers and public education efforts related to legal perspective of Rohingya Refugees in Indonesia.

Keywords: Rohingya, Refugee, International Law

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Introduction

Rohingya ethnicity has become a topic of discussion in several countries. Because, many Rohingya people have become refugees in other countries. The UNHCR report as of December 5th, 2023 shows that more than a million Rohingya refugees seek protection across numerous countries.¹ Bangladesh is the country that accommodates the most, accommodate nine hundred thousand people.² Followed by Malaysia (200,000 people), India and United Arab Emirates (50,000 people), Australia, Thailand, and US (5,000 people) and Indonesia (1,000 people).³ The large number of Rohingya people who have fled to other countries has certainly sparked serious discussion in the international level.

The enormous number of refugees arriving in various nations has elicited both positive and negative reactions from the citizens of the receiving countries. Indonesia is no exception. Rohingya refugees came to Indonesia in several batch. In fact, according to the BBC, there could be up to 10 batch of Rohingya refugee arrivals. Rohingya Refugees arrival has reached 1608 people.⁴ Some people support Rohingya refugees, while others strongly oppose their arrivals.⁵ Those who refuse believe that the acceptance of Rohingya refugees in Indonesia will inflict chaos among Indonesian citizens. Meanwhile, those who agree stated that Indonesia has an obligation to assist Rohingya refugees.

The belief that Indonesia has a responsibility to assist the Rohingya is based on various factors. Indonesia, for example, has ratified several human rights accords.⁶ Another key reason is that the Indonesian constitution explicitly prohibits all forms of human torture.⁷ Another reason is the principle of non-refoulement, which, according to international law, all countries must follow when dealing with refugees who seek assistance.⁸ These three arguments are the foundation for why Indonesia should assist Rohingya refugees.

In conjunction with the preceding description, the purpose of this essay is to critically investigate and explain Rohingya refugees in Indonesia, as well as their legitimacy under international law.

Refugees and Their Vulnerabilities

The terms "refugee," "asylum seeker," and "migrant" are frequently used to refer to or characterize individuals who have left their home country and now in the territory of another.

¹ UNHCR Indonesia. *14 Fakta Mengenai Pengungsi Rohingya*. <https://www.unhcr.org/id/54329-14-fakta-mengenai-pengungsi-rohingya.html> (accessed June 5th, 2024)

² Medecins Sans Frontieres. *Rohingya : The World's Largest Stateless Population*. <https://msf.org.au/rohingya-worlds-largest-stateless-population> (accessed June 5th, 2024)

³ Beni Jo. *List of Rohingya Refugee Populations in Various Countries*. <https://tirto.id/daftar-populasi-pengungsi-rohingya-di-berbagai-negara-gSSM> (accessed June 5th, 2024)

⁴ BBC News Indonesia. *There are 1,600 Rohingya Refugees, Why are Acehnese fishermen helping them?* <https://www.bbc.com/indonesia/articles/c4nye1ewp2xo> (accessed June 5th, 2024)

⁵ Badan Riset dan Inovasi Nasional. *Hateful Narratives and Hoaxes on Social Media Influence the Rejection of Rohingya Refugees*. <https://www.brin.go.id/news/117111/narasi-kebencian-dan-hoax-di-medsos-pengaruh-penolakan-pengungsi-rohingya> (accessed June 5th, 2024)

⁶ Dian Wahyu Utami, et.al. *Indonesia's Constitutional Immigration Policy : The Case of Rohingya Ethnic Group Refugees*. JISSH Volume 8, Issue 2, 2018 (119-131)

⁷ Indonesian Constitution of 1945, Article 28 G (paragraph 2). <https://www.dpr.go.id/jdih/uu1945>

⁸ Maria-Teresa Gil-Bazo. *Refugee Protection under International Human Rights Law : From Non-Refoulement to Human Rights Law: From Non-Refoulement to Residence and Citizenship*. Refugee Survey Quarterly, 2015, 34, 11-42

Distinguishing and explaining these phrases is critical, given that each term has a unique meaning and legal repercussions that differ from one another.

The 1951 Geneva Convention concerning the Status of Refugees Article 1 A (2)⁹, provides the following limitations regarding refugees: the term "refugee" means any person who has the well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear is unwilling to avail himself of the protection of that country; or not having a nationality and being outside the country of his former habitual residence, is unable or, owing to such fear is unwilling to return to it. Thus, refugees are people who (1) left their country of nationality, (2) has a feeling of dread toward mistreatment because of reasons of race, religion, ethnicity, enrollment of a specific gathering, political assessment.

According to the 1951 Convention, refugees are people who are fearful as a result of hard treatment or mistreatment because of their ethnicity, color, religion, nationality, or specific social and political affiliation and are seeking help in the country.¹⁰ Refugees are those who are compelled to flee their homes due to fear or situations that jeopardize their life and those of their family members.¹¹

Meanwhile, the other two terms have similar but not the same meanings. Asylum seekers are people who have left their home country and are on the territory of another nation to seek protection from acts of persecution and serious breaches of human rights, but have not been legally recognized as refugees and are awaiting a judgment on their asylum claim.¹² While, for migrant term, it is to describe people who are neither refugees nor asylum seekers. Migrants might be people who moves away from his or her place of usual residence, whether within a country or across an international border, temporarily or permanently, and for a variety of reasons.¹³ Some migrants might leave their country because they want to get a more decent job, for study purpose or follow a family member.

The growing number of migrants and asylum seekers worldwide usually sparks conflict in destination countries.¹⁴ One of them are Rohingya refugees. Struggle in Myanmar has constrained the Rohingya ethnic group to flee and seek protection. The refugee crisis in Myanmar began with a confrontation between ethnic Rohingya minorities and the Myanmar government. As indicated by Amnesty International, the military has been disregarding the human rights of the Rohingya ethnic populace beginning around 1978. This scenario inhibits the Rohingya ethnic community from acquiring fundamental citizenship privileges such as housing, employment, and benefits.¹⁵

⁹ The Office of the United Nations High Commissioner for Refugees. *Text of the 1951 Convention Relating to the Status of Refugees*

¹⁰ (UNHCR, 2018)

¹¹ Pratama, A. Y. (2014). Status Pengungsi Rohingnya, Myanmar Ditinjau Dari Hukum Internasional. Padang: Fakultas Hukum Universitas Bung Hatta.

¹² Cristiano d'Orsi. 2015. *Asylum-Seeker and Refugee Protection in Sub-Saharan Africa*. (England : Taylor & Francis) page 5

¹³ International Organization for Migration. *IOM Definition of "Migrant"* <https://www.iom.int/who-migrant-0> (Accessed June 20 2024)

¹⁴ Jennifer Dabbs Sciubba. *The Future Faces of War: Population and National Security*. (England : Bloomsbury Publishing, 2010)

¹⁵ Purwanto, A. (2017, June 3). Menelisik Akar Persoalan Rohingya. Retrieved from www.kompas.com: <http://print.kompas.com/baca/2015/06/03/Menelisik-Akar-Persoalan-Rohingnya>

Refugees are part of the world's most vulnerable groups; There are at least three reasons why refugees are vulnerable.¹⁶ Refugees are more susceptible to shocks. Refugees are frequently the victims of theft, harassment, discrimination, and aggressiveness, and they are far more prone to experience physical and mental health issues.¹⁷ Disruptions and decreases in humanitarian assistance are common among camp residents. Second, refugees do not have the same legal status as host country nationals, which limits their benefits.¹⁸ There is unequal access to health care, education, employment, and social benefits. In most situations, the situation for asylum seekers and irregular migrants is far worse. Third, refugees frequently face limited choices for coping with shocks. People in low-income areas frequently rely on networks to deal with shocks.¹⁹ In certain circumstances, people sell their assets or take on additional work. However, these options are frequently unavailable to refugees due to poor employment rates, a lack of assets, and ineffective informal social protection institutions.

That is why the community provides legal instruments in the form of the 1951 Geneva Convention and the 1967 New York Protocol to build an international protection system for them. Apart from that, it was also supported by the 1969 Organization of African Unity Convention.

Rohingya People: A Closer Look

Rohingya is an ethnic group living in Myanmar, specifically in the Rakhine or Arakan region. Cases related to the Rohingya began to surface in 1982.²⁰ According to certain accounts, the harsh treatment of Rohingya groups, which prompted the commencement of this war, had occurred for a long time in the form of incidences of rape, discrimination against minorities, and ethnic entity issues.²¹ This issue is aggravated by the Myanmar government's refusal to acknowledge the status of Rohingya ethnicity and its failure to assist Rohingya communities.²² They thought that the government would resolve the problem, but instead they were banished. As a result, the persecution and slaughter of the Rohingya ethnic groups continues to this day.

Before learning more about the Rohingya communal conflicts, it's critical to understand the socio-historical roots of the issue. The Second World War marked the beginning of the conflict in Myanmar. Rohingya first came in Arakan State, Burma (Myanmar) between the seventh and ninth centuries. They are a Muslim ethnic minority that has had trouble preserving their native identity. Their stay in Arakan coincided with British and Japanese colonialism (1942-1945). It had a significant influence in inciting hostility between Muslims and Buddhists.²³ When a conflict emerged between these two world powers (British and

¹⁶ Refugee Economies. Shocks, Vulnerability, and Livelihoods. <https://www.refugee-economies.org/> (accessed June 24th, 2024)

¹⁷ Mixed Migration Centre. *Journey to Indonesia for Rohingya Refugees: Routes, Risks, Assistance, and Needs*. MMC Asia 4Mi Snapshot-June 2022

¹⁸ The Office of the United Nations High Commissioner for Refugees. *Text of the 1951 Convention Relating to the Status of Refugees*

¹⁹ Op.cit

²⁰ Jon Anderson. 2021. *Understanding Cultural Geography: Places and Traces*. (England : Taylor & Francis) page 174.

²¹ Melanie O'Brien. *From Discrimination to Death: Genocide Process Through a Human Rights Lens*. (England: Taylor & Francis, 2022)

²² Nasir Uddin. *Voices of the Rohingya People, A Case of Genocide, Ethnocide and 'Subhuman' Life*. (England: Springer International Publishing, 2022)

²³ Muhammad Busyairi. *Rohingya, A Struggle for Recognition as 'Indigenous'*. Jurnal Ilmiah Kajian Keimigrasian. Vol. 4 No. 1 Tahun 2021

Japanese), Majority of Myanmar citizens including Rakhine ethnic sided with the Japanese colonial while Rohingya ethnic groups remained loyal to the British. As a result, the violence between Rohingya and Myanmar populations started.²⁴ The conflict was escalated and got worse.

Furthermore, the rivalry between the two intensified until the Myanmar government enacted the Citizenship Law in 1982. According to this statute, the Myanmar government recognizes an ethnic group that existed in Myanmar prior to the British colonial conquest in 1824. It only summoned 135 ethnicities, excluding Rohingya.²⁵ The unreasonable treatment began to be felt by the Rohingya communities. The Burmese Citizenship Law did not include the Rohingya among the 135 ethnicities recognized as indigenous citizens. All Rohingya ethnic groups do not receive Myanmar citizenship, which makes them stateless.²⁶ This status then leads to many problems that related to human rights. The exclusion of Rohingya people occurred in the right to attained identity, the right to pursue education, the right to access standard health, and the right to obtain job.

Rohingya people do not have the luxury for nationality. They are sitting in the middle of two countries who do not acknowledge them at all, Myanmar and Bangladesh. “On the one hand, Myanmar sees Muslim Rohingya as the foreigner from Bangladesh and try to expel them from the Myanmar territory. On the other hand, Bangladesh does not acknowledge them as their citizens” (Utami et al., 2018, p. 125). This circumstance left Rohingya with identity crisis that leads to another problem such as the right to pursue education.

Access for education became scarce for Rohingya people. Whereas many international treaties and legislation for the protection of refugees emphasize the right to education. This conception based on the Universal Declaration of Human Rights and the UN Convention on the Rights of the child.²⁷ But, this could not be applied to Rohingya people. As a matter of fact, “Rohingya children who lack birth registration and/or citizenship continue to have difficulties accessing education” (The Equal Rights Trust, 2014). If this condition repeated for several years ahead, the set back that might be happened is that Rohingya people will be uneducated forever and could not afford a better life in the future. Because, a better life would start with a better access for education.

Another problem that being noticed within Rohingya society was a difficult way in for the highest attainable standard of health. This privilege should be accessible for everyone including moslem Rohingya because the right to access standard health was guaranteed by ASEAN Human Rights Declaration. But, the actual fact stated otherwise. Some Rohingya

²⁴ Utami, D.W., Saleh, R., Oktafiani, I., Indonesia’s Constitutional Immigration Policy : The Case of Rohingya Ethnic Group Refugees. . Journal of Indonesia Social Sciences and Humanities. Volume 8, Issue 2, 2018 (119-131)

²⁵ Norman et.al. *The Rohingya Crisis : A Moral, Ethnographic, and Policy Assessment*. (England : Taylor & Francis, 2020)

²⁶ Sabyasachi et.al. *The Rohingya in South Asia: People Without State*. (England: Taylor & Francis, 2018)

²⁷ Burmese Rohingya Organisation UK. *The Right to Education Denied for Rohingya Refugees in Bangladesh*. (London, 2018)

refugees witnessed that it is difficult to acquire expert care²⁸. Even when the UNCHR had intervened, the proper healthcare still difficult to access²⁹.

A crucial problem that needed to be point out is a difficult access to get a job. According to the ICESCR and the ASEAN Human Rights Declaration, the right to work is a basic right for everyone but it seems like there was an exception for Rohingya descendants. It was claimed that Rohingya people have the right for temporary residence were not permitted to work or receive health benefits.

Should Indonesia Lending a Hand for Rohingya?

As the world's population of migrants and asylum seekers grows, conflict usually erupts in the countries of destination. The countries may respond to this scenario in a variety of ways, including refusing to admit these migrants³⁰ by putting residents' social security first, or embracing and tolerating refugees as illegal immigrants. The pros and cons of the entry of Rohingya refugees into Indonesia had also sparked debate.

Proponents claim that Indonesia must accept the arrival of refugees. The Rohingya's journey is not easy. From 2012 until the present, Rohingya migrants have traveled to Indonesia in stages, using small boats with little food, and many of them have died on the journey due to malnutrition or boat sinking.³¹ They traveled from Myanmar to Indonesia, crossing the Indian Ocean. These streams are tough to travel. The Indian Ocean is the most terrible ocean. This ocean is famed for its high, unmanageable waves. Rohingya people are willing to incur the risk of crossing a dangerous ocean, hinting that what was left behind them is even more awful. While, the opponents argue that bringing Rohingya refugees to Indonesia will generate anarchy. Until June 2024, this claim has not been proven at all.

The arduous trek that Rohingya refugees faced was not without perils. As mentioned in the graph below, the Mixed Migration Centre indicates that refugees who come to Indonesia face physical abuse, extortion, detention, death, sexual violence, robbery, kidnapping, and others.³²

²⁸ Shreehari Paliaath. *How Rohingya Refugees are Impacted by Limited Access to Healthcare*. India Spend. <https://www.indiaspend.com/health/how-rohingya-refugees-are-impacted-by-limited-access-to-healthcare-890067> (accessed June 29, 2024)

²⁹ Utami, D.W., Saleh, R., Oktafiani, I., Indonesia's Constitutional Immigration Policy : The Case of Rohingya Ethnic Group Refugees. . *Journal of Indonesia Social Sciences and Humanities*. Volume 8, Issue 2, 2018 (119-131)

³⁰ Ruma Paul and Sudipto Ganguly. *Bangladesh Will Not Let in Any More Rohingya Refugees*. <https://www.reuters.com/world/asia-pacific/bangladesh-will-not-let-any-more-rohingya-refugees-minister-2024-02-07/> (accessed June 22nd 2024)

³¹ Mixed Migration Centre. *Jourey to Indonesia for Rohingya Refugees: Routes, Risks, Assistance, and Needs*. MMC Asia 4Mi Snapshot-June 2022

³² Ibid.

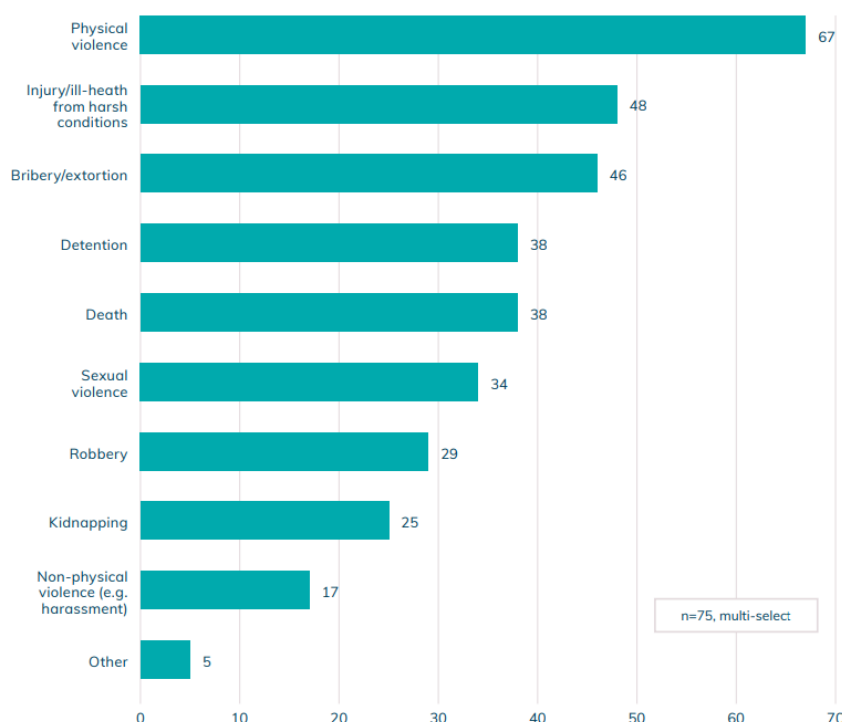


Figure 1: Graph of violence against Rohingya refugees who traveled to Indonesia

Does it legal to accept Rohingya Refugees to Indonesia? Indonesia has not ratified Refugees convention. However, refugee acceptance in Indonesia is in accordance with some Human Rights Conventions that Indonesia has ratified.³³ Those conventions are The Convention Against Torture 1984; The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), The International Convention on the Elimination of All Forms of Racial Discrimination (ICERD); The United Nations Convention on the Rights of the Child; The International Covenant on Economic, Social and Cultural Rights (ICESCR), The International Covenant on Civil and Political Rights (ICCPR).

Aside from the Human Rights Convention, refugees' admission in Indonesia is consistent with Indonesia's constitution. In Article 28 G (paragraph 2) of the 1945 Constitution states: "Every person has the right to be free from torture or treatment that degrades human dignity and has the right to obtain political asylum from another country" (Indonesian Constitution of 1945). This means that Indonesians should humanize persons and aid anyone who has been subjected to human rights crimes.

The Indonesian government's approach on welcoming refugees alludes to Pancasila as a basic value of Indonesia.³⁴ and the 1945 Constitution as the source and foundation of the national law. The Indonesian people protect human dignity in accordance with this law, as evidenced by the just and civilized humanity norms. Furthermore, the Indonesian people are compelled by law to contribute to the creation of international peace. Although Indonesia has not become a part to the 1951 Convention and 1967 Protocol, as a part of the international

³³ Shafa et al. *Analysis on Human Rights Enforcement by Adopting UDHR in Indonesia and Malaysia*. Proceedings Universitas Muhammadiyah Yogyakarta Undergraduate (2021)

³⁴ Siti et al. *The Essence of Pancasila as the Foundation and Ideology of the State: The Values of Pancasila*. International Journal of Educational Narratives. Volume 1, No. 2, 2023

community, Indonesia holds moral responsibility for implementing the General Human Rights Declaration. (Universal Declaration of Human Rights).³⁵ In addition, Indonesia has continuously put the universal human rights principle into reality.

Several Indonesian legislation contain the fundamental ideals and concepts of the 1951 Convention and 1967 Protocol, such as in Law Number 5 of 1998³⁶ concerning the Ratification of the Convention Against Torture and Other Cruelties, and in Human or Degrading Treatment or Punishment. This Act affirms that Indonesia, as a member of the international community, encourages a respectful attitude and supports the values and purposes of the United Nations Charter and the Universal Declaration of Human Rights. Furthermore, Indonesia has implemented Law Number 39 of 1999³⁷ concerning Human Rights, that the State of the Republic of Indonesia acknowledges and defends human rights and fundamental human freedoms as inherent and inseparable from humanity. In order to enhance human dignity, well-being, happiness, intelligence, and justice, these rights must be preserved, respected, and upheld. In Article 28 of this law, It is said that everyone has the right to seek protection and political assurance from various nations. This law indicates that this Act strengthens the 1951 Convention and the 1967 Protocol.

Concerning the management of refugees from abroad, Indonesia has made policies through Presidential Regulation (PERPRES) number 125 of 2016. According to the regulations, the Indonesian government handles refugees in compliance with international legal cooperation principles.³⁸ This rule states that the Indonesian Minister coordinates the processing of refugees, beginning with discovery, shelter, security, and monitoring. This is consistent with Indonesia's commitment to fulfill refugee protection standards and the concept of nonrefoulement.

Aside from that, Indonesia is also obligated to assist Rohingya refugees who have escaped to its territory under the non-refoulement principle. Non-refoulement principle protects refugees or asylum seekers from being expelled or returned to places where his life or freedom would be threatened on particular accounts, for example his race, religion, or nationality.³⁹ The idea of non-refoulement has been internationally recognized as *jus cogens*. It signifies that this principle cannot be deviated from under any circumstances.

The Non-Refoulement Principle is the cornerstone of the international protection system for refugees and asylum seekers, as it is established in several international and national legal documents. The presence of the Non-Refoulement principle in the legal framework for protecting refugees and asylum seekers is also crucial for the preservation of human rights in general.

³⁵ Shafaet al. *Analysis on Human Rights Enforcement by Adopting UDHR in Indonesia and Malaysia*

³⁶ Law (UU) Number 5 of 1998 concerning Ratification of the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment).

³⁷ Law (UU) Number 39 of 1999 concerning Human Rights.

³⁸ Novianti. *The Implementation of Presidential Regulation Number 125 of 2016 on Handling of International Refugees*. Negara Hukum: Vol.10, No.2, November 2019.

³⁹ Sigit Riyanto. *Prinsip Non-Refoulement dan Relevansinya dalam Sistem Hukum Internasional*. Mimbar Hukum - Fakultas Hukum Universitas Gadjah Mada. Volume 22 Issue 3.

Conclusion

After the discussion above, it can be concluded that Indonesia must help Rohingya refugees who fled to Indonesia for 3 reasons. First of all, Indonesia had been ratified some Human Rights Conventions. Although Indonesia has not become a part to the 1951 Convention and 1967 Protocol, as a part of the international community, Indonesia holds moral responsibility for implementing the General Human Rights Declaration (Universal Declaration of Human Rights).

Secondly, It was written in Indonesia constitution itself, the 1945 Constitution as the source and foundation of the national law. The Indonesian people protect human dignity in accordance with this law, as evidenced by the just and civilized humanity norms. Furthermore, the Indonesian people are compelled by law to contribute to the creation of international peace.

Finally, There was a non-refoulement principle which prohibit a country in returning refugees to their original country where they were being persecuted. Non-refoulement principle protects refugees or asylum seekers from being expelled or returned to places where his life or freedom would be threatened on particular accounts, for example his race, religion, or nationality.

Acknowledgements

In the name of Allah, Al-Rahman, al-Rahim.

All praise due to Allah, Lord of the world, prayers and peace be upon our prophet Muhammad, and his family, and his companions, and those who followed him.

I extend my sincere gratitude to Universitas Darussalam Gontor Indonesia whose support and collaboration have been fundamental to my writing skill.

I would like to acknowledge and give my warmest regards to my mother, who had supported me emotionally and financially to complete this research. I express my deepest gratitude.

To my brothers who provided unwavering support. Your belief in my abilities fueled my perseverance.

Thank you all for your invaluable contributions to this project.

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***Empowering Communication and Collaboration Skills of Prospective Biology Teachers
With a Global Insight Through Think Pair Share Based Lesson Study***

Andi Muhammad Miftah Farid, Universitas Negeri Malang, Indonesia
Anisa Firmandanur Sinta, Universitas Negeri Malang, Indonesia
Herawati Susilo, Ibrohim, Universitas Negeri Malang, Indonesia
Ibrohim Ibrohim, Universitas Negeri Malang, Indonesia

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

A teacher's ability to teach Biology science concepts in English is a must. English language proficiency will make it easier for prospective biology teachers to access knowledge from various disciplines and countries. Unfortunately, several challenges in teaching Biology in English, such as student difficulties in understanding the material, inability to express oneself clearly, and lack of participation in class discussions make it difficult to achieve targets. This is relevant to the low level of communication and collaboration skills observed in classroom learning. Therefore, this action research study examined an approach that focuses on empowering prospective biology teachers' communication and collaboration skills through implementation of TPS (Think Pair Share) learning model into class. We worked with 9 prospective biology teachers in a teaching biology in English course at the biology department university in Indonesia. The method used in this research is the classroom action research method (CAR) based on lesson study activities, which consists of three cycles, namely planning, implementation, and reflection. Assessment is carried out using self-assessment and observation using Greenstein rubric. The data analysis technique used is descriptive analysis. The results suggested that the TPS (Think Pair Share) model helped prospective biology teachers to achieve better ways of communicating and collaborating during biology teaching. Communication skills in each cycle have increased, while collaboration skills still fluctuate in each cycle. We argued that grouping students should consider their previous abilities such as communication and collaboration, so that lecturers or teachers could make diagnostic tests before the TPS implementation in learning.

Keywords: Communication, Collaboration, Prospective Biology Teachers

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Introduction

The future landscape of education is evidently shifting towards the digitalization of learning and globalization (Astuti et al., 2019; Choudhary et al., 2021). It requires students to master the English language as the international lingua franca (Islam, 2023). Moreover, English is frequently employed as the standard language in scientific journals and international conferences, thereby facilitating access to education across diverse disciplinary boundaries and national borders. Consequently, numerous higher education institutions have begun to incorporate English-medium instruction for Biology as part of their curricula (Nurhadi, 2015; Coelho et al., 2019).

However, several challenges arise in teaching Biology in English, particularly for students whose proficiency in the language is not yet fluent (Archila & Mejía, 2019). Students may encounter difficulties in comprehending the materials, expressing themselves clearly, and participating in class discussions. Furthermore, English-medium instruction necessitates curriculum adjustments and teaching methodologies to align with the intended learning outcomes (Holbah & Sharma, 2021). This is especially pertinent for teacher-training institutions, which inherently prepare educators for the current generation—a generation highly adept in technology and the rapidly evolving global landscape, including foreign languages. A teacher's ability to impart biological science concepts in English has become imperative (Astuti, R. A., 2019; Chen et al., 2022).

Some obstacles in English-medium Biology instruction also manifest among students of Biology Education at Universitas Negeri Malang who undertake the Teaching Biology in English course. Observations during the course reveal challenges in English communication and collaboration among students. For instance, when posed with questions in English, many students require prolonged time and exhibit hesitancy in responding. Moreover, they tend to adopt a passive stance in utilizing English during group discussions, preferring to individually comprehend and then work on assigned tasks before submitting their work to group members without prior discussion.

Special strategies and efforts are required to address these challenges. The utilization of cooperative learning models is believed to aid students in English-medium Biology instruction by enhancing communication and collaboration skills (Yaduvanshi & Singh, 2019). A study by Chen et al. (2020) reveals that cooperative learning models employing high-order thinking skills and English as the medium of instruction can enhance students' critical thinking, cooperation, and problem-solving skills. Parallel to the enhancement of English proficiency, communication and collaboration skills are pivotal for success in various occupational domains (Fu & Wang, 2021). In the digital era, such skills are increasingly vital as technological advancements facilitate cross-national and cross-cultural collaboration (Dogara et al., 2020). Students are urged to possess not only academic but also social skills, often encapsulated within the concept of 21st-century skills. Communication and collaboration skills are integral components of 21st-century skills and warrant emphasis in higher education (The Partnership, 2009; Ober et al., 2023).

Therefore, education needs to adapt to these exigencies, and the Think Pair Share (TPS) cooperative learning model could be one of the solutions. TPS is recognized as an effective pedagogical method in enhancing students' communication and collaboration skills, including proficiency in English (Nurulaeni & Ismaniati 2019; Bukit, 2021). Several previous studies have also demonstrated the effectiveness of the TPS cooperative learning model in enhancing

students' communication and collaboration skills. For example, research by Prasetya (2018) indicates that the implementation of TPS can enhance students' communication and collaboration abilities in biology learning. Additionally, a study by Sari and Hardiyanti (2019) suggests that the implementation of TPS can also enhance student participation in Indonesian language learning. Findings from research by Sholihah and Retnaningsih (2018) similarly indicate that the TPS model can improve students' social skills in social studies learning.

Based on the foregoing exposition, students' English language proficiency is influenced, among other factors, by the accuracy of teachers in implementing innovative and creative learning models, which subsequently impact students' efficacy, efficiency, and enjoyment in receiving lessons (Qin, 2022; Bernal & Mligalig, 2023; Zeng, 2023). Bilingual education needs to be holistically implemented throughout the learning process in every subject. Hence, this study aims to ascertain the influence of the implementation of the Think-Pair-Share (TPS) model on the enhancement of communication and collaboration skills among students enrolled in the Teaching Biology in English course at Universitas Negeri Malang.

Methods

The research method employed in this study is Classroom Action Research (CAR) consisting of three cycles, namely planning, implementation, and reflection. The implementation phase and observation are conducted simultaneously, meaning that observations take place during the teaching process. The subjects of this study are undergraduate students majoring in Biology Education at Universitas Negeri Malang who are taking the course Teaching Biology in English, totaling 9 students. The subjects exhibit heterogeneous abilities, with some students demonstrating high, moderate, and low proficiency levels. Communication and collaboration indicators utilized in this study are based on the indicators proposed by Greenstein (2012), which are then elaborated into descriptors. Assessment is conducted using observation during the learning activities.

Result and Discussion

Communication Skills Through the Application of TPS Model for Students Teaching Biology in English State University of Malang

The research was conducted over 3 cycles, with each cycle implemented in a single meeting. Data collected in this study pertained to students' communication and collaboration skills. The gathered data were analyzed according to the predetermined data analysis techniques.

1) Cycle I

In Cycle I: (1) the planning stage involved preparing lesson designs, lesson plans (RPP), chapter designs, and materials suitable for the Think-Pair-Share (TPS) learning model, while also adhering to the Achievement Standards of the Teaching Biology in English course. Additionally, instructional media, assessment instruments or tests, and communication and collaboration observation sheets were prepared at this stage; (2) the action stage involved implementing scenarios aligned with the prepared Think-Pair-Share (TPS) learning syntax, with approval from the course instructor, during the teaching and learning process. Cycle I was conducted in a single session according to the Learning Implementation Plan (RPP) for the Think-Pair-Share (TPS) learning model; (3) the observation stage involved collecting observational data to monitor student activities during the learning process; and (4) the

reflection stage entailed reflecting on shortcomings and strengths to be addressed in the subsequent cycle.

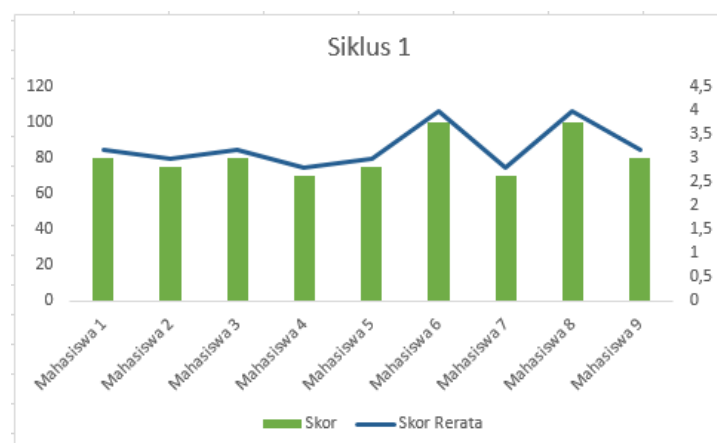


Figure 1. Communication Skills in Cycle 1

From the results of Cycle I (Figure 1), it is evident that the average communication skills of students were 81.11. The highest scores were achieved by Student 6 and Student 8, while the lowest scores were obtained by Student 4 and Student 7. Student 6 and Student 8 were notably more active during the learning process and exhibited above-average abilities compared to their peers. Conversely, Student 4 and Student 7 were less active and displayed less enthusiasm in learning.

Overall, student activity during Cycle I showed improvement compared to the initial observations before the implementation of CAR. Each pair of students began to bravely and actively pose questions regarding difficulties or materials they did not understand during the learning process. However, students were less active in discussing issues encountered during the learning process. Nevertheless, upon individual assessment, there were still several students who hesitated to express their opinions regarding the lesson material and lacked the willingness to effectively engage with the implemented Think-Pair-Share learning model.

Based on these findings, there are areas that require attention and improvement. Follow-up actions are necessary to address the aforementioned shortcomings. Therefore, the study proceeded to Cycle II by reapplying the same learning model, but with additional strategies to encourage greater student participation and enthusiasm. Additionally, special attention was given to students who were initially less active, with groupings pairing active students with less active ones in hopes of fostering better communication and collaboration.

2) Cycle II

In Cycle II: (1) the planning stage was conducted similarly to Cycle I. However, in this cycle, the materials and strategies employed were made more engaging and creative to enhance students' learning motivation; (3) the observation stage involved collecting observational data to monitor student activities during the learning process; (4) the reflection stage entailed reflecting on strengths and weaknesses for further action. The reflection on the implementation of Cycle II revealed that less active students began to confidently ask questions regarding their learning difficulties. Learning activities also improved in Cycle II as nearly all students were engaged in the learning process. However, there were still instances during group discussions where some students could not actively and efficiently

communicate with their group members. Observational analysis indicated that active group members often dominated the discussions, leaving less active students feeling marginalized and unable to actively participate in the discourse.

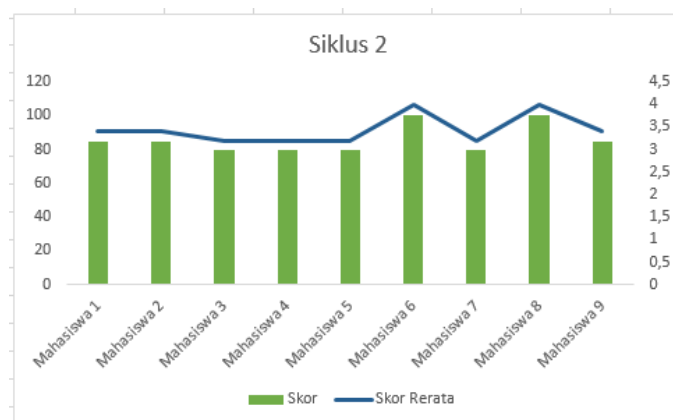


Figure 2. Communication Skills in Cycle 2

From the results of Cycle II (Figure 2), it is apparent that the average communication skills of students were 86.11. The improved grouping composition and teaching strategies have successfully enhanced the class's communication scores. The highest scores were achieved by Student 6 and Student 8, while the lowest scores were obtained by Student 3, 4, 5, and Student 7. Previously less active and enthusiastic students appeared more engaged during the implementation of Cycle II.

3) Cycle III

In Cycle III: (1) the planning stage was conducted similarly to Cycles I and II. In this cycle, the materials and teaching strategies continued to present engaging and creative content to boost student motivation, along with a new grouping composition; (3) the observation stage involved collecting observational data to monitor student activities during the learning process; (4) the reflection stage entailed reflecting on strengths and weaknesses for further action. The reflection on the implementation of Cycle III revealed that previously less active students seemed to enjoy discussions more during the learning process. Learning activities also improved in Cycle III as all students were actively engaged. A particular highlight was the success of the new group composition in ensuring each individual felt equally responsible without any one dominating the group dynamics.

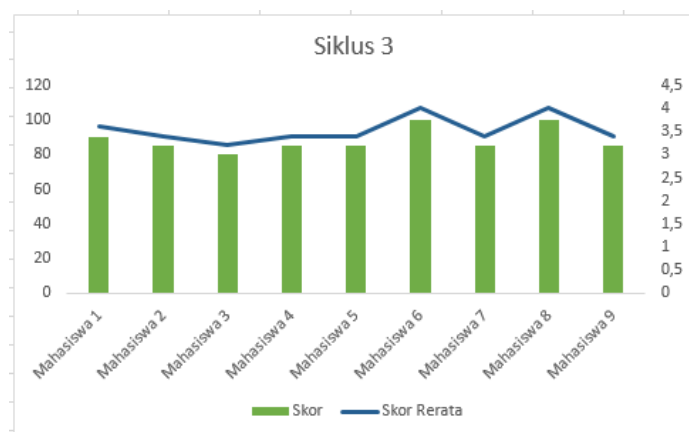


Figure 3. Communication Skills in Cycle 3

From the results of Cycle III (Figure 3), it is evident that the average communication skills of students were 88.33. The implementation of new grouping compositions and improved teaching strategies have successfully enhanced the class's communication scores. The highest scores were achieved by Student 6 and Student 8, while the lowest score was obtained by Student 3. Previously less active and enthusiastic students appeared more engaged during the implementation of Cycle III.

Collaboration Skill Through the Implementation of the TPS Model in Teaching Biology in English at Universitas Negeri Malang

Collaboration is defined as the ability to work effectively, responsibly, and empathetically among group members in collaborative work to achieve common goals, while also being able to value each group member's opinions (Xu et al., 2023). A collaborative attitude is crucially important to instill in students as it enhances their academic performance in problem-solving tasks within projects (Chu et al., 2012). Several studies have shown that collaborative learning can improve academic and social educational outcomes (Lin, 2020). In fact, teachers often assign individual tasks and rarely facilitate discussions or group work. Teachers tend to assign individual tasks from student textbooks. Furthermore, the lack of teacher competence in implementing collaborative learning affects the limited social interaction of students in groups because they tend to solely focus on academic achievement (Cubero et al., 2018; Tampubolon, 2018; Scager et al., 2016).

In the Teaching Biology in English course, learning is conducted over 3 cycles using the Think-Pair-Share (TPS) model in each cycle. Initial observations were conducted over two weeks and revealed that the collaboration skills of the 9 students enrolled in the Teaching Biology in English course were lacking. This is due to the fact that the language of instruction in this class is English, leading to difficulties for some students. Collaboration skills encompass both interpersonal and intrapersonal skill domains. Interpersonal skills are fundamental skills, especially needed for collaborating with peers and family in social relationships. Collaborative behaviors include getting to know others, actively listening, providing feedback, responding to others' ideas, and avoiding negative comments. Interpersonal skill aspects include contribution, group support, group dynamics, interaction among group members, and role flexibility (Ober et al., 2023). Meanwhile, the intrapersonal skill domain pertains to students' self-related abilities needed for collaboration. Intrapersonal skill aspects include motivation/engagement, work quality, time management, readiness, reflection, and team learning (Hodges, 2018).

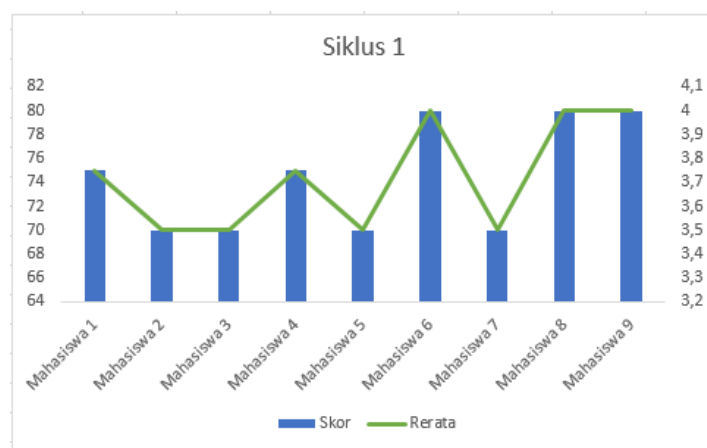


Figure 4. Collaboration Skills in Cycle 1

In Cycle 1 (Figure 4), the collaboration skills obtained show an average score of 70. Meanwhile, the scores of the other 5 students are above 70. Learning in the first cycle was conducted using the TPS method, with instructional materials provided before the lesson began, and students were randomly grouped to ensure the expected scores were distributed normally. The students who scored 70 are Student 2, Student 3, Student 5, and Student 7.

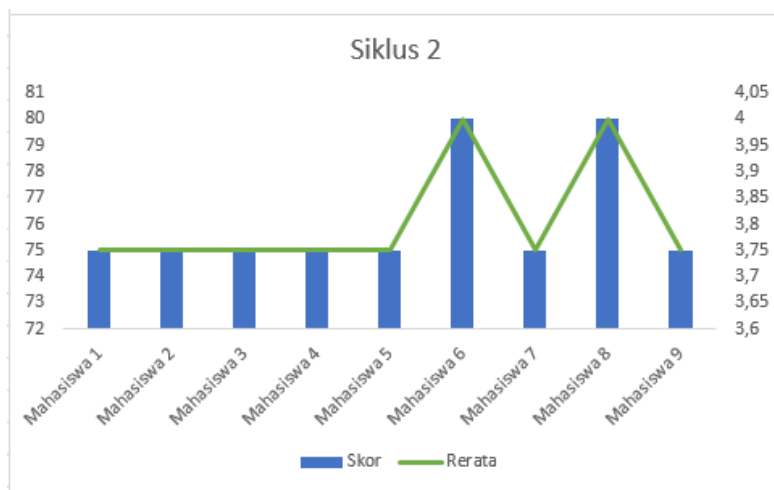


Figure 5. Collaboration Skills in Cycle 2

In Cycle 2 (Figure 5), collaboration skills generally experienced an increase in scores above 70. Learning in Cycle 2 was supplemented with active learning, where each student actively participated in presentations and discussions using English. This aligns with research conducted by Husain, Saenab, and Yunus (2019), where students' collaboration skills can be assessed by providing various tasks that incorporate elements such as goal setting, planning, generating and selecting strategies, and attempting solutions. Collaboration skills involve the social interaction process among students, where they exchange thoughts and feelings, cooperate, and interact to solve problems. However, the data obtained still show heterogeneity, with higher scores for Student 6 and Student 8 compared to the other 7 students.

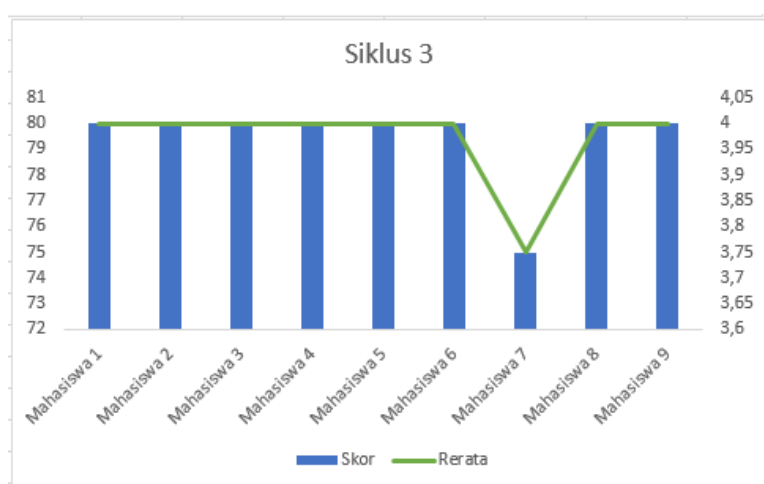


Figure 6. Collaboration Skills in Cycle 3

In Cycle 3 (Figure 6), it is observed that the average collaboration skills of each student have increased compared to the previous cycles. The average score for collaboration skills is 80. However, there is one student, Student 7, who still has a lower score compared to the others.

This is due to the student feeling less confident when speaking in public using English. Various studies conducted by researchers, such as, suggest that students should make the most of their time in completing tasks collaboratively, appreciate all members' opinions, engage in discussions within the group, share common goals, and take responsibility for completing assigned tasks (Luthfi et al., 2023).

Conclusion

Based on the data analysis and discussion, it can be concluded that communication skills experienced improvement in each cycle, while collaboration skills still fluctuated in each cycle. This indicates that the use of the Think-Pair-Share (TPS) learning model in the Teaching Biology in English course has positively impacted the enhancement of students' communication skills from cycle to cycle. However, there are fluctuations in collaboration skills, which may be influenced by factors such as comfort level in communicating in English, confidence level, and willingness to collaborate with groupmates. Therefore, there needs to be more focused and targeted efforts to enhance students' collaboration skills in the future, such as providing more opportunities for discussion and collaboration in English, as well as coaching to boost confidence and a sense of responsibility in working together in groups.

Acknowledgement

The authors supported by the Education Financing Service Center (Pusat Layanan Pembiayaan Pendidikan – PUSLAPDIK BPI) and the Education Fund Management Institute (Lembaga Pengelola Dana Pendidikan - LPDP) Republik Indonesia.

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<https://doi.org/10.1016/j.heliyon.2023.e15806>

Contact email: andi.muhammad.2203418@students.um.ac.id

Teaching Ethical Decision-Making Using Frameworks and Interactive Case Studies

Chien Ching Lee, Singapore Institute of Technology, Singapore
Lee Keng Ng, Singapore Institute of Technology, Singapore
Emily Woo, Singapore Institute of Technology, Singapore
Yin Kai Ng, Singapore Institute of Technology, Singapore

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Students are often not taught intentionally how to manage workplace ethical dilemmas. This study adopted onsite teaching of ethical frameworks and interactive videos to examine their impact on students' decision-making process for two case studies presented. Workshop results from 111 internship students revealed that students' primary considerations in decision-making were conscience, law, and fairness. Furthermore, 87.3% of them found the frameworks moderately, very, or extremely useful. Lastly, the use of interactive videos was supported by 76.5% of the students, rating it moderately useful and above. Students also suggested incorporating more realistic scenarios and role-plays in future implementations of the workshop.

Keywords: Case Studies, Ethical Decision-Making, Frameworks, Interactive Videos, Internship, Workplace Learning

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Introduction

The Need for Teaching on Ethics

In recent years, workplaces have grappled with escalating ethical challenges, prompting deep concerns among industry practitioners regarding the ethical conduct of their employees. This concern is particularly pronounced in the hospitality industry, where the repercussions of unethical behaviour extend far beyond, impacting the success and reputation of businesses. Despite this, a disparity persists in students' perceptions of ethical statements, underscoring the need for a more comprehensive and intentional approach to teaching ethical decision-making (Teng & Cheng, 2021). Furthermore, research indicates that students often underestimate the gravity of ethical misconduct, underscoring the necessity for early and explicit education on ethical behavior (Huang, Lalopa, & Adler, 2016).

Recognising this gap, our study aimed to address the challenges in teaching ethical decision-making within hospitality education. Teaching ethics is multifaceted, encompassing cognitive knowledge, behavioral skills, and character development dimensions (Siegler, 2001). Drawing inspiration from Siegler's dimensions, our study incorporated critical thinking processes and ethical frameworks proposed by Kallet (2014) and Sherfield and Moody (2013) to guide the development of students' ethical decision-making capabilities. While existing literature recommended synchronous interactive methods, such as role plays and case study discussions, scalability and curriculum time issues led us to explore an asynchronous interactive delivery approach.

In our study, the workshop was conducted over three hours during a break in the internships of 146 students. This method, supported by classroom teaching, is designed to maintain an active-participative model suitable for accommodating large class sizes. We hoped that this approach could empower students to navigate complex ethical scenarios with acumen, with a heightened sense of responsibility and a well-rounded understanding of the ethical considerations crucial in their academic and professional journeys.

Objective

The primary objective of this study was to assess the effectiveness of leveraging ethical frameworks and interactive videos in teaching ethical decision-making to hospitality students within a blended learning setting.

In this paper, we present the significance of teaching ethical decision-making, scrutinise conceptual frameworks within the realm of hospitality management, and explore diverse delivery approaches as recommended in existing literature. The study's methodology, including the profile of respondents, lesson plan, and data collection and analysis methods, are presented to provide a transparent view of our research approach. This holistic examination aims to contribute valuable insights to the ongoing discourse on ethical education within the hospitality industry, shedding light on effective teaching methodologies that can enhance students' ethical decision-making skills.

Literature Review

The Importance of Teaching Ethical Decision-Making

Practitioners have acknowledged that ethical challenges in the workplace have become more complex and critical, with practitioners showing an increasing concern about the ethical behaviours of employees (Teng & Cheng, 2021). In their study that compared practitioner and hospitality students' perceptions on ethical statements, they found that there was a high level of agreement on statements related to 'personal moral', 'customer integrity', 'manager leadership', 'corporate integrity', 'customer equity', and 'personal behaviours'. However, there were gaps in the agreement with all unethical statements for the first two factors above. Students tend to underestimate the seriousness of ethical misconduct while practitioners ranked these statements higher because they were more aware about the legal complications and cost of unethical behaviour, and violation of company rules that could affect the success and reputation of the business.

Huang, Lalopa and Adler (2016) and Goh and Kong (2016) reiterated that students tend to ignore the importance of ethical behaviour in the workplace as it's considered 'basic' and thus advocate that students be taught not to succumb to unethical behaviour at the pre-employment stage.

Conceptualisation

Siegler (2001) recommended the teaching of ethics to include the cognitive knowledge, behavioural skills, and character development dimensions. Jaszay (2002) identified the following dimensions for hospitality managers: honesty, integrity, trustworthiness, loyalty, fairness, concern and respect for others, commitment to excellence, leadership, reputation and morale and accountability. Vallen and Cadado's (2000) findings based on their survey on 45 hotel general managers were similar with a focus on leadership, accountability, commitment to excellence, integrity, honesty, and fairness.

The teaching of ethics could be taught as a stand-alone course, integrated in all courses in a discipline or as a combination of both (Ruiz, Warchal, & You, 2020). The University of Chicago for example teaches medical ethics based on clinical situations involving real patients or cases (Siegler, 2001). There is a core set of lectures, supplemented by reading materials. Ethics teaching is continuously emphasised throughout the entire duration of medical school, clinical attachment, and residency training. There is also an integration of classroom teaching with clinical training where students would read up, observe, and then practise.

The common factor observed in the various modes of delivery in the teaching of ethics is the active-participative model (Beca, 2014) as it enhances students' engagement with the content learnt. McWilliams and Nahavandi (2016) stressed that as the learning goal is to aid students in reflecting and applying what they have learnt, instructional strategies which include discussion and application of theoretical concepts; active engagement and emotional involvement of students; critical thinking skills; relevance to students; integration with other knowledge that students possess; accountability and transfer of learning to real life should be core. Lyon (2021) supported that the teaching of ethics must be practical and applied in learning.

Approaches that could be adopted include case studies (Ellison et al, 2018; Jaszay, 2002; O'Flaherty & McGarr, 2014) and live case projects which involve students analysing critically and presenting on real cases of their choice (McWilliams & Nahayandi, 2016). Roy (2012) adopted the debate approach where students take a position on a particular marketing practice and defend it while Cochran and Weaver (2017) prompted students to reflect on their structured experiential learning activities. Grose-Fifer (2017) used role-play to enhance his students' critical thinking about ethics in psychology. The students opined that role-play helped them better comprehend theoretical concepts and evaluate an issue from different perspectives. This outcome concurred with the findings from other studies that role-play increases the understanding of a topic (McCarthy & Anderson, 2000; Poorman, 2002), developed their perspective-taking (Pusateri, Halonen, Hill, & McCarthy, 2009), critical thinking (Poling & Hupp, 2009), and communication skills (Nestel & Tierney, 2007).

In our study, the workshop was conducted in three-hours during their work attachment time out. Due to the short time frame and large class size, we explored the use of interactive videos to maintain the active-participative model (Beca, 2014), supported by classroom teaching instead of the approaches above. Following the criteria mentioned by McWilliams and Nahavandi (2016) and Lyon (2021), the videos were developed based on inputs from the authors who were also the students' internship supervisors. Five scenarios were written based on issues that their past internship students faced, with sufficient complexity in the scenarios for discussion and to help students develop their analytical skills, judgement, and decision-making. These scenarios were further discussed and finalised by the authors to be developed into interactive videos by the university's media team. The videos were interactive as they stopped at various junctures and prompted students to make decisions, after which the decision made will be played out, leading to specific consequences. The students could restart the videos again to find out what were the consequences if other decisions were made.

In line with Siegler's (2001) three dimensions, our study used Kallet's (2014) critical thinking process to help develop students' cognitive knowledge. Kallet's process consisted of three steps: *Clarity*, *Conclusion* and *Decision*. *Clarity* refers to spending the time to develop a clear definition of a problem. *Conclusion* refers to deciding based on multiple solutions explored while *Decision* refers to acting on the decision made.

To develop students' behavioural and character development dimensions, Sherfield and Moody's (2013) framework was chosen as they were like those identified by Jaszay (2002) and Vallen and Cadado (2000). The framework consists of six components or questions that students should ask themselves when faced with choices, namely: Law (Is it legal?), Fairness (Is it fair?), Conscience (Can I live with my decisions?), Time (Is this decision in my long-term best interest?), Pride (Could I tell somebody about it?); and Publicity (How would I feel if this showed up on the front page of the newspaper?). This framework encourages students to think of the long-term implications of their actions to their reputations instead of just opting for a quick fix to challenges.

The conceptual framework for this study, as adapted from Kallet's (2014) and Sherfield and Moody's (2013) frameworks is shown in Figure 1.

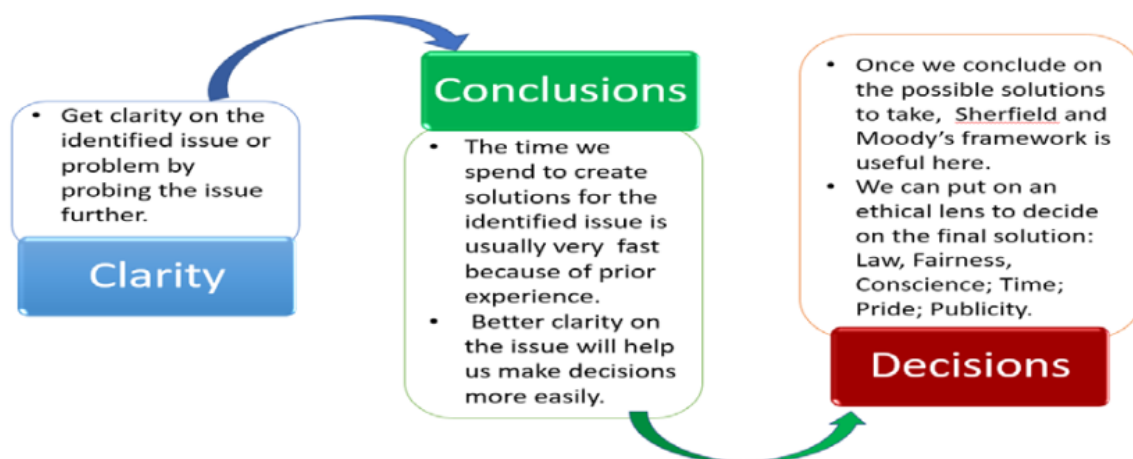


Figure 1: Conceptual framework for this study, adapted from Kallet's (2014) and Sherfield and Moody's (2013) frameworks.

Methodology

Profile of the Respondents

This study employed a non-probability convenience sampling plan. The respondents consisted of 146 Hospitality Business students who were in the final year of their degree programme. This study took place in a mandatory back-to-campus workshop lasting 3 hours with a 15-minutes break in-between. This workshop was the students' first formal and intentional exposure to the ethical decision-making process. The workshop was not introduced earlier as it was felt that by the month of September of their eight-month long internship, students would have gained sufficient workplace experience to be able to relate to the job-related ethics scenarios (Chen et al, 2013) in the interactive videos more meaningfully.

Data Collection and Analysis

This study has been approved by the university's Institutional Review Board. The workshop was held in a large hall with students seated in groups of eight to ten. The students were informed by the first author about the objectives of the study, the anonymity of their inputs and the voluntary nature of their participation at the beginning of the workshop verbally and via the Participant Information Sheet. They were then invited to fill in the consent form.

In the first segment of the workshop, the third author presented on the relevance of critical thinking in the workplace and introduced Kallet's framework to the students. After which, the students were prompted to evaluate how their current thinking process differed from Kallet's framework. The second author then elaborated on Sherfield and Moody's framework using examples for each of the factors. After a 15-minutes break, the students were asked to individually watch and respond to prompts in the first video. The students then discussed in groups their responses to several discussion questions with reference to Kallet's framework. A debrief on the discussion questions was held before the students proceeded to do the same for the second video. The students were also debriefed after that.

All the students were invited to respond to an online survey at the end of the workshop. The following were the questions posed in the survey:

- 1) What were the factors that they considered when making ethical decisions in the workplace?
- 2) Were the frameworks taught helpful in aiding them to make ethical decisions?
- 3) Were the interactive videos helpful in aiding them in making ethical decisions?
- 4) How could this lesson on ethical decision-making be improved?

The students' quantitative responses were analysed and themes from the open-ended question discussed and rationalised by the authors.

Results

Findings

There were 111 responses to the online survey which represented 76.6% of the cohort of hospitality students who were undergoing IWSP. The first question required the students to select the factors that they would consider when making ethical decisions in the workplace. The question was intended to measure the learning outcome, be it the recollection or the internalization of variables from the two frameworks taught.

The top three most frequently selected factors were: conscience (95%, n=106), law (87%, n=97) and fairness (84%, n=93). The other three factors reflected considerably lower frequency counts: namely, pride (58%, n=64), time (56%, n=62) and publicity (51%, n=57) (Figure 2).

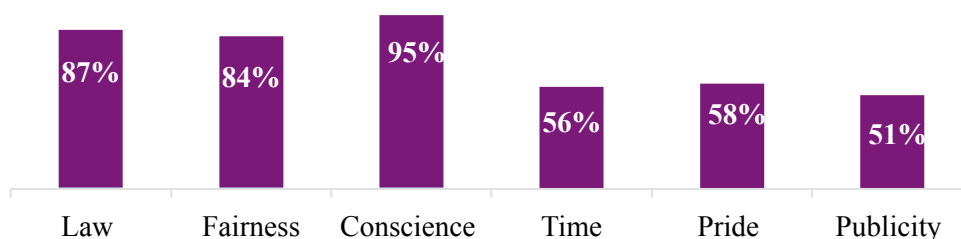


Figure 2: Selected factors from framework.

When asked if the frameworks taught were useful in helping them make ethical decisions, the mean score was 3.51 out of a maximum of 5. Figure 3 shows that 87.3% of the students found the frameworks to be moderately, very, or extremely useful. There were four students (3.6%) who indicated that the theoretical structures were not useful.

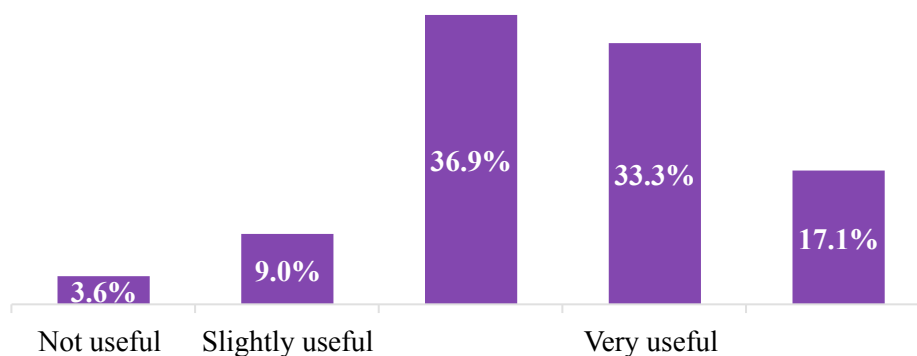


Figure 3: Usefulness of frameworks.

Regarding the usefulness of the interactive videos in helping them learn to make ethical decisions, the mean score of 3.51 (out of a maximum of 5) suggested that most of the students did find the teaching tools to be of instrumental value. About 76.5% of the students assessed the interactive videos to be moderately, very, or extremely useful, while 23.4% indicated ‘slightly useful’ as well as ‘not useful’ in their responses (Figure 4).

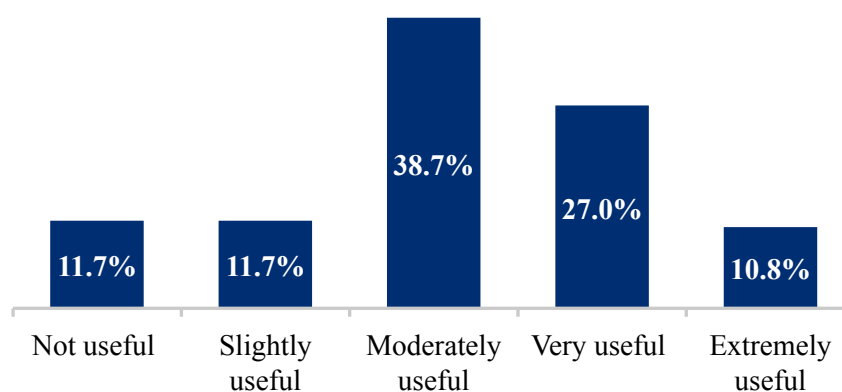


Figure 4: Usefulness of interactive videos.

In addition to the quantitative questions, there was an open-ended question for students to share their opinions on how the lesson on ethical decision-making can be improved. Among the 81 written comments that were collected, only four were explicitly in favour of the current pedagogical method:

“Interesting, short and sweet.”

“Video was engaging in displaying what is right or (sic) wrong.”

“The current way of giving real life examples is good.”

“This lesson has been useful.”

At least 21 comments highlighted how the interactive videos could be improved. The suggestions included:

- Easier-to-view format on different devices
- Inclusion of learning points beyond the clicking of choices
- Provision of more than two options for each decision-making juncture
- Design of less black-and-white scenarios, as reflected in the comment below:

“... harder decisions where the situation was more morally and ethically grey, therefore challenging our thinking more ... Do not be afraid to give us harder issues that we may face in the working world.”

The students also proposed alternative ways of delivering the lesson on ethical decision-making. One proposal is to use discussions of issues that the students themselves encountered at their workplaces, or actual incidents that are published in the news. The other suggestion is to utilise role-plays. Both methods reflected that the students preferred pedagogical designs that offer more complexity, realism, engagement, and interactivity.

Discussion and Conclusion

Discussion and Implications

The findings showed that the top factors that students considered when making ethical decisions in the workplace were conscience (95%, n=106), law (87%, n=97) and fairness (93%, n=93). The high percentage for ‘conscience’ contrasts findings by Huang, Lalopa and Adler (2016) and Goh and Kong (2016) that students tend to ignore the importance of ethical behaviour in the workplace. Furthermore, the students do consider the legal repercussions of their actions and fairness to themselves and their colleagues. The findings in this study are also interesting as they reflect the differences in considerations between hospitality students and those of hospitality managers by Jaszay (2002) and Vallen and Cadado (2000). These findings imply that there are complex practical issues that influence students’ response to ethical dilemmas.

In addition, about 87.3% of the students found both frameworks to be moderately, very, and extremely useful. This implies that frameworks do help them to break down the ethical issue more systematically and to be aware of factors that need to be considered. This finding also provides credence to the use of these two simple frameworks as compared to other available frameworks used in literature, in the teaching of ethics at the undergraduate level.

Furthermore, 76.5% of the students found the interactive videos to be moderately, very, or extremely useful even though the pedagogical approach could be improved. The interactive videos were voice recorded with only two options for decision-making at various junctures. Students might have felt that this approach was detached and not realistic. Thus, the students suggested making the interactive videos more authentic with added complexity and varied decisions. They wanted more “grey” (not simple black and white) situations because the students perceived the workplace as grey - black and white situations were easy to decipher. This finding indicates students’ desire for more engaging and challenging pedagogical approaches and signals a need for tutors to adapt the teaching approach to better sustain student engagement and active learning (Ellison et al., 2018; Grose-Fifer, 2017; McWilliam & Nahayandi, 2016).

Future delivery of ethics teaching could be made using a flipped learning mode with the interactive videos provided as pre-learning materials. 21 students mentioned that they would prefer watching the videos from other devices besides their handphones and for learning points to be clearly indicated in the videos. These improvements could be implemented in the future.

Conclusion

As academic supervisors, we see the need to teach students ethics as part of workplace learning and to support them during their internship. Besides cognitive knowledge, students should understand that industry practitioners regard ethical conduct as important to their business practice and reputation. This is of particular concern as research from Huang et al (2016) indicated that students often underestimate that importance.

In the three-hour workshop, students were exposed to two frameworks and interacted with the videos to make decisions. The findings revealed that students' primary considerations in ethical situations were conscience, legal and fairness. Moreover, 87.3% and 76.5% of the students found the frameworks and interactive videos moderately useful and above respectively.

The findings from this study have encouraged us to further refine our pedagogical approach and teaching material to prepare our students adequately and efficiently to face workplace ethical challenges during their internship and their future careers.

Limitations of This Study

This study is limited to responses from a survey which was conducted after a three-hour workshop in a large lecture room. Thus, the responses might be influenced by the level of engagement afforded by the physical constraints, and a lack of comparison of their perceptions of ethical statements prior to the workshop. No focus groups could be conducted either as the students were still doing their internship and thus had tight time schedules.

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On the Appropriation of Critique of Ideology by the Conspiracy Discourse

Ján Demčišák, University of St. Cyril and Methodius in Trnava, Slovakia

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Critique of ideology aims to analyze power relations and mechanisms of domination and questions the emergence and spread of ideologies within our culture. The historical background to this critical reflection includes Marx and Engels, Gramsci, Althusser, Adorno and Horkheimer or Foucault. In the present day, however, this concept has been appropriated by various conspiracy theory media. This article aims to examine how this criticism is constructed within the framework of the conspiracy discourse and what possibilities of deconstruction, e.g. critical discourse analysis in the sense of Foucault, can offer us. The analysis is carried out using the example of texts from the conspiracy-theoretical German-language magazine “Rubikon” from the section “Media and Ideology Criticism” from the years 2022 and 2023. The aim is to show and understand how conspiracy theories attempt to conceal alternative truths through a pseudo-scientific perspective and language.

Keywords: Critical Theory, Conspiracies, Corpus Analysis

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Introduction

This article is based on the analysis of texts from the German online magazine “Rubikon”, published between 2017 and 2023 by “Rubikon-Verlag”. The “Initiative for the Democratization of Opinion Formation”, based in Mainz, is responsible for the content. The publisher's motto is “The future belongs to the brave” and it is justified with the following words: “Because in times of permanent global crises, not only the regular but also the free media have long since sunk into propaganda and one-dimensionality - and we believe that the last remnants of freedom of the press and freedom of opinion as well as decency, morality and democracy must be unconditionally defended” (*Rubikon-Verlag*, n.d.). However, behind these noble goals hides a conspiracy-theory medium and, as the following analyses will show, this description is indeed appropriate. Shortly after the magazine was launched, the experts were still cautious and initially only spoke of a “border crosser” (German: “Grenzgänger”) and even praised its critical analyses of leading media. On the one hand, the takeover of the published texts by other conspiratorial platforms is mentioned, but on the other hand, the distancing of some authors from the conspiracy theorist label is pointed out (Enkeler, 2017). Three years later, the criticism is stronger, and, as Holland-Letz (2020) demonstrates, the image of the serious online magazine crumbles after a closer look. These assumptions are later confirmed by other analyses (Waldmüller, 2022; Müller et al., 2023) and NewsGard Rating also rated the website with 35 points out of 100, which classifies it as unreliable because it severely violates basic journalistic standards. The report also states that the magazine publishes conspiracy myths and false and misleading claims (*DE-Rubikon.news-UPDATED*, 2020). The magazine's reach should not be underestimated, as it already had over one million readers in 2020, according to its editor Jens Wernicke (Holland-Letz 2020). For this reason, it is necessary to take a serious look at the success of this medium and examine the argumentative and rhetorical strategies used to reach the masses of readers.

Empirical Basis and the Corpus-Based Analysis

Above all, it is important to carry out an empirically based analysis. For our study, a text corpus was created consisting of the articles in the “Media and Ideology Criticism” section from the years 2022 and 2023 (*Medien- & Ideologiekritik*, 2017-2024). Dates, authors' names, and information about the authors were filtered out so that the focus of the research could be purely on the actual texts. The analysis was carried out with the help of Sketch Engine; German Web 2020 (deTenTen20) was used as the reference corpus. The empirical basis consists of a total of 464 texts and the corpus contains 954,326 words and 51,232 sentences.

After identifying the keywords, we can get a better picture of the thematic orientation of the analyzed journal section. The first 50 keywords (see Figure 1) are dominated by terms related to vaccination against the coronavirus, e.g. “vaccination”, “vaccine”, “vaccination campaign”, “compulsory vaccination”, “unvaccinated”, “vaccinated”, “to vaccinate”, “vaccination opponents”, “vaccination refusers”, “mRNA”, etc. This also includes proper names, such as company names (“Pfizer”, “Biontech”) or personal names (such as the German Federal Minister of Health – “Lauterbach” or the German virologist “Drosten”) and other words associated with the pandemic (“pandemic”, “Covid”, “lockdown”, “PCR test”). The other significant topic is related to the expressions that describe different types of presumed ideologies (“genderism”, “totalitarianism”, “totalitarian”, “transhumanism”, “technocratic”, “technocracy”) represent their narratives and power techniques (“narrative”,

“narratives”, “to cancel”, “lateral thinkers”, “trusted news initiative”, “fact-checkers”) and emphasize the anti-system struggle (“anti-fascism”). Here, too, there are several proper names that on the one hand represent the system and its thinking (“WEF”, “Musk”, “Harari”, “Selenskyj”, “Laschyk”) or on the other hand fall victim to it, criticize it or try to resist its ideology (“Meyen”, “Baab”, “Guérot”).

Lemma		Lemma		Lemma		Lemma	
1 impfpflicht	...	14 baab	...	27 impfstoff	...	40 selenskyj	...
2 ungeimpfte	...	15 pfizer	...	28 technokratisch	...	41 impfkampagne	...
3 ungeimpft	...	16 lauterbach	...	29 technokratie	...	42 antifaschismus	...
4 meyen	...	17 querdenker	...	30 pandemie	...	43 musk	...
5 wef	...	18 lockdowns	...	31 impfverweigerer	...	44 drosten	...
6 leitmedium	...	19 pei	...	32 krone-schmalz	...	45 laschyk	...
7 impfen	...	20 biontech	...	33 pcr-test	...	46 faktenchecker	...
8 geimpfte	...	21 covid	...	34 canceln	...	47 coronamaßnahme	...
9 genderismus	...	22 mrna	...	35 narrativ	...	48 impfnebenwirkung	...
10 totalitarismus	...	23 impfung	...	36 desmet	...	49 harari	...
11 transhumanismus	...	24 totalitär	...	37 narrative	...	50 minnicino	...
12 impfgegner	...	25 guérot	...	38 impfschaden	...		
13 metaversum	...	26 geimpft	...	39 tni	...		

Figure 1: Keywords analysis, single words.¹

If we look at the collocations of the most relevant keywords in both thematic areas, we come to the following results: Terms such as “compulsory vaccination”, “to vaccinate”, “vaccinated” or similar are mainly found in contexts related to pressure or force. Typical are phrases like: “you just have to get vaccinated, or you'll soon have to live like a hermit”, “you just have to get vaccinated, but try to take that very freedom in this damned 'dictatorship’”, “because vaccination refusers [are] criminals who may be subjected to enforcement measures in the event of compulsory vaccination” and so on. The term “unvaccinated” is accompanied by words such as “anger”, “discrimination”, “harassment” or “tyranny”. These and many other examples show that the two topics are closely linked and that they point to the critique of totality against which the texts seek to combat. The totalitarianism to be opposed is described as “technocratic”, “modern”, “contemporary”, “global” and “digital”. Phenomena like genderism or transhumanism are also named as components of the totalitarian system and the leading media are described as supporters and disseminators of these ideologies and totalitarianism. In the texts examined, these phenomena are interpreted as a danger or a

¹ Translation into English: 1 compulsory vaccination, 2 unvaccinated, 3 unvaccinated, 4 Meyen, 5 WEF, 6 conductive medium, 7 vaccinated, 8 vaccinated, 9 genderism, 10 totalitarianism, 11 transhumanism, 12 anti-vaccinationists, 13 Metaverse, 14 Baab, 15 Pfizer, 16 Rubikon, 17 Lauterbach, 18 lateral thinkers, 19 lockdowns, 20 PEI (Paul-Ehrlich-Institut), 21 Biontech, 22 Rottenfusser, 23 Regenauer, 24 Covid, 25 mRNA, 26 vaccination, 27 totalitarian, 28 Wernicke, 29 Guérot, 30 vaccinated, 31 Klöckner, 32 vaccine, 33 technocratic, 34 technocracy, 35 pandemic, 36 vaccine deniers, 37 Rodrian, 38 Krone-Schmalz, 39 Rossum, 40 PCR test, 41 cancel, 42 narrative, 43 Desmet, 44 narratives, 45 vaccine damage, 46 TNI, 47 Selenskyj, 48 vaccination campaign, 49 antifascism, 50 Musk.

threat, as the following examples show: “This basically explains the attitude dictatorship implemented via instruments such as genderism and wokeness as inherent in the system.”; “The totalitarian shock troops of genderism, racism and the self-extinction of humanity are closely connected.”; “Transhumanism [...] essentially stands for the abolition of Homo sapiens”.

These examples confirm some important characteristics of the language of conspiracy theorists that have already been described in various studies. Fuchs (2022, pp. 25–31) lists among the important elements of conspiracy theories (1) the thesis of concealment and secret governance, (2) personalization, (3) friend/enemy scheme, (4) violence, (5) rational irrationality and (6) determinism.

Of the keywords and their collocations shown above, the most obvious is the creation of a friend-foe image and rhetoric based on the juxtaposition of “us” and “them”. This constellation also forms the basis for evoking fear of the “others”, of their ideology and their power over “us” as well as violence against “us”. In these points, the language of conspiracy theorists overlaps with the language of populists. Using the example of Slovakian radical populist discourse on the pandemic and the war in Ukraine, Štefančík (2022, p. 102–115) shows the same overlap. He also confirms, following Wodak, Ötsch, or Horaczek, that conspiracy theorists and populists spread fear and hatred to mobilize voters before elections. In general, we can speak of an emotionalization strategy that is typical for both conspiracy theories and populism. Fraštková counts among the linguistic manifestations of emotions (concerning the analysis of populist rhetoric and language) primarily expressions denoting emotions and secondarily specific word choices, “i.e. those expressions that do not denote emotions directly, but at least indicate the speaker's emotional attitudes towards objects of extra-linguistic reality through connotations”, emphasizing that connotations do not necessarily have to be manifested at the lexical level, but that they also occur at the syntactic level (Fraštková, 2020, p. 100). In the examples we have analyzed, we are mainly dealing with the second group of linguistic manifestations, i.e. indirect expressions or contextual connotations, whereby the corpus-based analysis may reveal rather the lexical than the syntactic level.

In addition to elements such as the friend/enemy scheme and violence (or emotionalization and the associated spread of fear), the following examples can also demonstrate the deterministic way of thinking: “One aspect of this debate that has so far received little attention is the (possible) connection between the ideology of transgender and transhumanism. If humans are increasingly to become just a small mechanical cog in the mega-machine, i.e. more machine than human, it would only be logical to dissolve their gender identity.”; “Eugenics and transhumanism are often cited as ideological motives of a ruling caste [...], in fact, eugenic approaches are likely to play a not insignificant role in the plans of the globalist ‘superclass’”. These examples show that conspiracy theories often make non-existent forced correlations that are typical of conspiracy mindsets - such as the fact that transhumanism is linked to transgender issues or even eugenics. This specific logic is also related to the aspect of rational irrationality. Fuchs (2022, p. 28) speaks of a “negative hyperrationality” that transitions into irrationality. Our research has also shown that, as part of this pseudo-rationality, examples can be found in which familiar terms are redefined and at the same time they are given negative connotations, such as: “After all, bioethics, a field of research that has played a central role during the coronavirus crisis, is nothing more than a euphemistic relabeling of long-forgotten ideas of racial theory, depopulation, and euthanasia.” In this case, bioethics is directly linked to racism, depopulation, and euthanasia

(characteristic of determinism) and is defined as the sum of these phenomena. We may call this argumentation strategy of conspiracy theories as redefinition or relabeling.

The aspect of personalization can also be shown in our text corpus. The analysis of multi-word combinations as keywords (see Figure 2) can display this more clearly than the previous single-word analysis. Concrete names of different personalities are represented here even more than with single words and account for almost 50% of the most frequented keywords.

Term	Term	Term
1 Karl Lauterbach ...	18 George Orwell ...	35 Mitglied des deutschen Bundestages ...
2 Great Reset ...	19 Christian Drostén ...	36 Milosz Matuschek ...
3 allgemeine Impfpflicht ...	20 Annalena Baerbock ...	37 Robert Koch-institut ...
4 Klaus Schwab ...	21 Bill Gates ...	38 Bayerischer Rundfunk ...
5 Rt De ...	22 Mattias Desmet ...	39 World Economic ...
6 maschinelle Intelligenz ...	23 Jens Lehigh ...	40 Markus Lanz ...
7 reaktionäre Kritik ...	24 Peter Thiel ...	41 Strategie der Macht ...
8 normaler Faschist ...	25 Boris Palmer ...	42 rote Linie ...
9 ganz normaler Faschist ...	26 Republik mit dem Finger ...	43 Trusted News ...
10 Wellcome Trust ...	27 gesamte Republik ...	44 Ken Jebsen ...
11 neue Normalität ...	28 Lothar Wieler ...	45 Le Bon ...
12 Elon Musk ...	29 gesamte Republik mit dem Finger ...	46 russisches Staatsgebiet ...
13 deutscher Bundesgesundheitsminister ...	30 freies Medium ...	47 ukrainischer Präsident ...
14 Ulrike Guérot ...	31 News Initiative ...	48 Nine Eleve ...
15 Homo sapiens ...	32 vierte industrielle Revolution ...	49 Winfried Kretschmann ...
16 Hannah Arendt ...	33 Noam Chomsky ...	50 Václav Havel ...
17 Olaf Scholz ...	34 Economic Forum ...	

Figure 2: Keyword analysis, multi-word terms.²

The pattern of “us” and “others” is also evident here. The names of politicians (Karl Lauterbach – Federal Minister of Health; Olaf Scholz – German Chancellor), scientists (Christian Drostén – German virologist), or businessmen and influential people (Klaus Schwab – Chairman of the WEF, Elon Musk, Bill Gates) appear here in a critical, negative perspective. Their mention in the texts is associated with a defamatory tone, generally emphasizing their incompetence or their dangerousness, as the following examples show:

² Translation into English: 1 Karl Lauterbach, 2 Great Reset, 3 general compulsory vaccination, 4 Klaus Schwab, 5 Rt De, 6 machine intelligence, 7 reactionary criticism, 8 normal fascist, 9 normal fascist, 10 Wellcome Trust, 11 new normality, 12 Elon Musk, 13 German Federal Minister of Health, 14 Ulrike Guérot, 15 Homo sapiens, 16 Hannah Arendt, 17 Olaf Scholz, 18 George Orwell, 19 Christian Drostén, 20 Annalena Baerbock, 21 Bill Gates, 22 Mattias Desmet, 23 Jens Lehigh, 24 Peter Thiel, 25 Boris Palmer, 26 republic with the finger, 27 entire republic, 28 Lothar Wieler, 29 entire republic with the finger, 30 free medium, 31 News Initiative, 32 fourth industrial revolution, 33 Noam Chomsky, 34 Economic Forum, 35 Member of the German Bundestag, 36 Milosz Matuschek, 37 Robert Koch Institute, 38 Bavarian Broadcasting Corporation, 39 World Economic, 40 Markus Lanz, 41 Strategy of power, 42 red line, 43 trusted news, 44 Ken Jebsen, 45 Le Bon, 46 Russian territory, 47 Ukrainian president, 48 Nine Eleven, 49 Winfried Kretschmann, 50 Václav Havel.

“Once you carefully observe the charisma of Olaf Scholz or Robert Habeck during public appearances, you sense a mixture of cold routine, insecurity, the forced reeling off of empty phrases, of sadness and yes, even of creeping fear.” (Rottenfußer & Wernicke, 2022)

“No matter what the voters think With Olaf Scholz and the ‘Golden Generation’ around Karl Lauterbach, Nancy Faeser, and Annalena Baerbock, the political establishment is openly mocking the population by no longer even bothering to give the appearance of competence and integrity.” (Rottenfußer & Wernicke, 2022)

“Now there is the fact that Bill Gates' foundation also gave the Pfizer Group quite a considerable sum of 17.252 million US dollars in September 2016. Anyone who now concludes that the foundation has also made profitable investments in Pfizer, as with Biontech [...] and not just today, is absolutely right. This brings us back to Albert Bourla, [...] one of the directors of Pfizer.” (Frey, 2022)

On the other hand, the personalization also includes names of personalities who demonstrate how the state and the powerful try to stop those who think differently. Again, these are politicians, academics, and well-known people (such as Ulrike Guérot - political scientist, Mattias Desmet - psychologist, Michael Meyen - media researcher, Ken Jebsen - German journalist and political activist and others), who are usually shown as victims of the system, criticism and the media. As in the following examples:

“Public Enemy No. 1: The existence-destroying way in which Ulrike Guérot was torn apart in public reveals a new level of brutalization in the culture of debate.” (Rossum, 2022b)

“Both the psychologist Prof. Mattias Desmet and the media researcher Prof. Michael Meyen describe something typical of secular societies after traditional certainties and offers of meaning have been lost: the exaggeration of scientific authorities.” (Unger, 2022)

“In the Rubikon exclusive interview, Ken Jebsen, Marcus Klöckner, and Roland Rottenfußer expose the strategies of the powerful to overcome even the last remnants of democracy.” (Riedl, 2023)

Furthermore, the names of different institutions correspond to the aspect of the personalization strategy. In the corpus we analyzed, it was primarily those against which the authors oppose themselves (such as the World Economic Forum, the Robert Koch Institute - German public health institute, or state media such as Bayerischer Rundfunk). They are accused of manipulating statistical data and tyranny or of using lying and aggressive rhetoric, as the following passages show:

“Numerical acrobatics of the Robert Koch - Institute and other protagonists of the Corona enforcement system.” (Rottenfußer, 2023)

“The WDR broadcast a podcast with its popular Doc Esser and the MDR sent Professor Alexander Kekulé into the media race [...] Hendrik Streeck was initially allowed to spread confusion about the novel and incredibly dangerous virus on Bavarian radio. But Christian Drost was undeniably the ace up the sleeve of the

pandemic, which owed its triumphant advance largely to its commentators.” (Rossum, 2022a)

Among the frequently mentioned key figures, there are surprising names such as Hannah Arendt, Georg Orwell, or Václav Havel, who do not belong to one side or the other. The significance and context of these names will be explored further in the next section of our article.

We also find personalized institutions from the opposite camp - such as the German-language program of the Russian propaganda channel RT DE. This had to be discontinued in 2022, what the authors interpret as censorship and silencing.

What could not be confirmed by our corpus analysis is the assumption that conspiracy theorists usually speak of secret governance and concealment. Expressions such as secret, secrecy, keep secret, conceal, hide, hidden, etc. are not so frequent in our corpus. Cumulatively, they represent around 0.03 percent of the empirical basis.

A Conspiratorial Critique of Ideology

As can be seen from our analysis so far, conspiracy theorists aim to criticize the political and social system, which in their eyes is set up and dominated by the elites. According to Michael Barkun, every conspiracy theory is based on three principles: 1) nothing happens by accident, 2) nothing is as it seems and 3) everything is connected (Barkun, 2013, pp. 3-4). This definition is now generally accepted and cited by many researchers internationally (see e.g. Butter, 2023 or Štefančík, 2022). However, the weakness of this definition lies partly in the fact that Barkun speaks of a conspiratorial belief. It is also common to speak of having faith or believing in conspiratorial theories. In this view, conspiracies are shifted into the sphere of religion and irrationality. This could also be the reason why they cannot be understood from the sphere of common sense. But modern conspiracy theories cannot always be seen in the sphere of the transcendental and irrational, as they imply an inner logic that is intelligible within the system itself. At the same time, they are not hermetic, but open and permeable to external influences and are very effective in the instrumentalization of different approaches.

In our analysis of the “us” versus “them” schema, we pointed to three names among the frequented corpus references that do not fit into either of the two categories. The philosopher Hanna Arendt, the novelist George Orwell, and the former president of Czechoslovakia Václav Havel neither belong to the criticized elite nor are they conspiracy theorists. What these authors have in common is their critical analysis of political power, totalitarianism, and the question of human freedom in this system. In the texts of our corpus, the ideas of these thinkers are instrumentalized in specific ways. Let's look at some examples:

“Modern totalitarianism shows no barbaric face, does not bare its teeth, does not need class struggle, does not need nationalism, does not rely on revolution, and yet it behaves as Hannah Arendt already saw it. [...] But of course, there must be an enemy that keeps society in perpetual motion. Movement is everything to the totalitarian system! The virus is ideal for this, not a villain, not a deviant, not a human being who has to be barbarically killed.” (Waltz, 2022)

“Even compulsory vaccination leads to people being vaccinated voluntarily in the end. Note the perfidious differentiation between people who want to be vaccinated

because they are obliged to do so and those who do so ‘entirely voluntarily’. So in Karl Lauterbach's world view, there is genuine voluntariness and enforced voluntariness. What a bizarre understanding of voluntariness [...] Orwell would probably have said: ‘Voluntariness is coercion!’” (Zedler, 2022)

“For him [Havel], ideology is the ‘power interpretation of reality’. In my language and terms of the here and now: the reality of the leading media, which we use not because we want to inform ourselves about reality [...], but because we want to know what others know or think they know (especially those who decide about our lives), and because we need to know the power relations of definition to survive. Who has managed to bring their topics and perspectives to the big stage, to the ‘Tagesschau’, to the ‘Süddeutsche Zeitung’, to the ‘Spiegel’?” (Meyen, 2022)

As we can see, the thoughts of Arendt, Orwell, or Havel are being used in the context of pandemic measures, vaccination, or the battle against the state media. In this way, the present in Western democratic countries is equated with totalitarian systems such as fascism or socialism/communism. At the same time, the conspiracy theorists feel committed to a fight against this supposed oppression and lack of freedom. If we look at the absolute frequency of the keywords in our corpus (i.e. without the reference to the deTenTen20 corpus) (see Figure 3), we can see that words such as “freedom”, “power”, “truth”, “democracy”, “ideology”, “propaganda” or “humanity” appear among the 20 most frequently used keywords. All these terms are also present in the philosophy of Arendt or Havel or the work of Orwell.

Word	Translation into English	Frequency
Freiheit	freedom	835
Macht	power	650
Impfung	to vaccinate	568
impfen	vaccination	508
Wahrheit	truth	482
Russland	Russia	477
Corona	Corona	430
Pandemie	pandemic	418
Ukraine	Ukraine	408
Virus	virus	380
Demokratie	democracy	351
Impfpflicht	compulsory vaccination	348
Maske	mask	328
Ideologie	ideology	311
Journalist	journalist	310
Impfstoff	vaccine	306
Propaganda	propaganda	217
Menschheit	humanity	215
Putin	Putin	212
Lauterbach	Lauterbach	204

Figure 3: The absolute frequency of the keywords in the focus corpus.

The language of modern conspiracy media uses a terminology that is philosophically related to the tradition of critique of ideology. Among the corpus references, the already mentioned and most frequented names Arendt, Orwell, and Havel are followed by names (in order of their frequency) such as Foucault, Chomsky, Adorno, Marx, Horkheimer, Engels, or Gramsci. The critique of ideology is based on the philosophers Marx and Engels, whose concept of

ideology was later taken up and redefined by Horkheimer and Adorno and then by other representatives of the school of critical theory. According to Horkheimer, ideology is “the ‘transfiguring appearance’ [German: Schein] or the ‘appearance necessitated by the specific form of the social process’, an ‘objectively necessary and at the same time false consciousness’” (Rehmann, 2019, p. 668). Our text analysis proves that conspiracy texts frequently use the term “appearance”. The verb “scheinen” occurs more than 2 times more frequently in our corpus than in the general corpus of the German language (analyzed corpus: rank 31; deTenTen20: rank 74). We see similar results for the term “falsch” (wrong), which is almost 2.5 times more frequent in our corpus than in general usage (analyzed corpus: rank 32, deTenTen20: rank 81). This statement also corresponds to the already mentioned thesis by Barkun (2013, p. 4) - nothing is as it seems. This shows that the conspiracy theorists attempt to see through the false consciousness and try to put it right. In doing so, they generally make use of theories and concepts on which there is a general scientific consensus. One of the things they have in common with Critical Theory is the ongoing critique of capitalism. According to Rehmann (2019, p. 676), what „Horkheimer and Adorno describe as the new ideology oscillates between positivist reproduction of the given ‘objective forms of thought’ of capitalist material society and manipulation – ‘business’ and ‘lies’“. It is therefore not surprising that “WEF”, “Klaus Schwab”, “Elon Musk” or “Bill Gates” also appear among the most frequently used keywords. We find a similar source in the critique of the media. Adorno and Horkheimer formulate the thesis that all media are driven to uniformity and that there is no substantial difference between culture and media on the one hand and industry on the other. In their words, freedom “is symbolized in the various media of the culture industry by the arbitrary singling out of average cases. [...] Industry is interested in people merely as its customers and employees and has reduced humanity, as well as each of its elements, to this exhaustive formula. Depending on which aspect is currently decisive, ideology emphasizes plan or chance, technology or life, civilization or nature” (2000, pp. 178-179). This aspect of ideological manipulation is one that conspiracy theorists like to take up repeatedly. Critical Theory also addressed the phenomenon of fascism very intensively. Not only the work of Adorno and Horkheimer but also that of Hana Arendt is exemplary in this respect. The conspiracy theorists speak of the phenomenon of fascism in a completely unreflected way. On the one hand, this is because they are disconnected from the actual historical experience; on the other hand, it is because they redefine this term for their means. In their use of the word, anything that is incompatible with their different way of thinking can be described as fascist. As the following passage demonstrates: “The active fascists are indispensable for an escalation towards dissenters that is necessary for the system. They are therefore often to be found in the propaganda media, where they turn the verbal escalation screw or appear as street fighters in the form of stormtroopers. It does not matter whether these street fighters define themselves as ‘right-wing’ or ‘left-wing’, they are the totalitarian vicarious agents of fascist regimes” (Feistel, 2022). As this example shows, unlike extremists, they do not necessarily have to position themselves on the left or right on the political spectrum. It is interesting, however, that among the analyzed texts we also find those that draw attention to the improper utilization and misinterpretation of Critical Theory. One example is the text *Rektionäre Rebellen* by Daniel Sandmann (2023). In this article, the author deals with the text “The New Dark Age. The Frankfurt School and ‘Political Correctness’”, in which Michael Minnicino creates a conspiracy theory according to which the Frankfurt School (i.e. Critical Theory) aims to destroy the foundations of Western culture. Sandmann critically reads the text and exposes Minnicino's untruths:

“While Preparata, in his search for the reasons for the devastation, believes he has found them in Foucault, in Minnicino's case it is the Frankfurt School - first and

foremost Walter Benjamin, Theodor W. Adorno, Max Horkheimer and Herbert Marcuse, but also Erich Fromm and Hannah Arendt - that is responsible for the civilizational catastrophe of the West. [...] The will to frame content with a certainty of interpretation leads to falsifications [...] From the point of view of the text, 90 percent of all intellectual greats of the 20th century are confused occultists, weirdos, drug addicts, and sexual deviants who are united with the Marxists in their will to destroy Western culture.” (Sandmann, 2023)

But the defense against Minnicino's accusations leads to the instrumentalization of the Frankfurt School's ideas for one's purposes: “A critical attitude towards mass media and, incidentally, towards the instrument of opinion surveys associated with them, for whose development Minnicino also sees the Frankfurt School as responsible via psychoanalysis, is by no means specifically reactionary. The potential of mass media to undermine any autonomy threatens every emancipative project on earth, every independence, kills every movement outside the line - this could be impressively observed in the mass media-controlled Corona attack as well as in the fascist Ukraine show of these days.” (Sandmann, 2023). The media criticism of Adorno and Horkheimer is defended and at the same time linked to the criticism of the current media image of the anti-pandemic measures and the war in Ukraine.

Using the example of media criticism from the side of conspiracy theorists, we also observe that they not only appropriate the language of scientific discourse, but also the language of the media itself. The general vocabulary used to describe conspiracies is integrated and transformed into the criticism of the leading media, as the following example shows: “The 'fact-checkers' in the 'truth media' are almost manically engaged in wiping any suspicion that goes in this direction off the table: 'It's not just on social networks that adventurous conspiracy theories are doing the rounds. Is Bill Gates behind Corona because he wants to force his vaccine on us and implant a chip? Yes, yes, always Bill Gates. Personalization is a very effective way of blurring any unwanted context. Finally, the clever choice of words is used to ridicule the 'conspiracy theory' - let's call it a well-founded suspicion because it is more truthful. This is how pseudo-journalism is practiced” (Frey, 2022). The simplistic language, personalization, and twisting of the facts of which conspiracy theories are accused are held against critics and the media in the same way. The schematic and simplistic representations of conspiracy rhetoric are interpreted as unrealistic and untrue: “Where the leading media scream 'conspiracy theory', we find the presumed reality of tomorrow” (Frey, 2022). They counter this “cry” with very sophisticated language and argumentation, which is underpinned by reading academic texts - as has been shown in the examples above - especially the texts of critical theory, but also Foucault's discourse analysis. The last example is the article by Sandmann (2022), in which the author analyzes the book “Psychopolitik - Neoliberalismus und die neuen Machttechniken” by the philosopher Byung-Chul Han and at the same time links it argumentatively to the conspiratorial debates about Big Data or Corona. Indirectly, the key concepts of Foucault's critical discourse analysis – such as the concept of power and biopower – are thus adopted and instrumentalized.

Conclusion

Our research shows that contemporary conspiracy theories cannot be reduced to simple narration and the dissemination of fabricated facts. Particularly in the more formalized forms of texts, for example in the German online magazine “Rubikon”, a very sophisticated way of expression is used. By adopting the language of scientific texts, by quoting and analyzing texts by proven scientists and theorists (e.g. philosophers of Critical Theory), the authors

embed them in their argumentation patterns. They also adopt the language, terminology, and arguments of their critics or the language of the mass media. It is not uncommon for existing terms to be redefined and corrected or relabeled. We can describe this type of adoption and adaptation of borrowed speech patterns as a kind of language mimicry. For this reason, it is important to take conspiracy theorists more seriously and not to accuse them of a lack of thinking. In particular, the more sophisticated texts, which themselves often come from educated people, journalists, philosophers, or scientists, have a great potential to manipulate and influence many rational people and intellectuals. For this reason, the texts should be subjected to serious critical readings, and discourse analysis in the sense of Foucault could be used as a tool to analyze the language of conspiracies for argumentative gaps and inconsistencies. Further research on this phenomenon could also go in this direction.

Acknowledgments

This work was supported by the Slovak Research and Development Agency under the Contract no. APVV-22-0221.

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Teaching Implementation and Innovation of Design Practice Course With Application of ARCS-V Motivational Model

Luo ShiChen, National Yunlin University of Science and Technology, Taiwan
Tu Jui-Che, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In response to the changing internet era, teaching strategies must adapt. Particularly, students in design programs must not only possess creativity and practical design skills but also demonstrate social empathy and the ability to solve real-world problems. In past teaching scenarios, it has been observed that students, influenced by digital technology, often lack observation and experiential understanding of the surrounding world. This deficiency leads to a lack of empathy in the conceptual development process of design and a gradual loss of the ability to explore and analyze user needs. Therefore, this study introduces the ARCS-V motivation model into design courses, aiming to enhance students' four key abilities: "Adaptation to Learning," "Exploration of Learning," "Observation in Design," and "Application of Learning." Through methods such as pre-and post-course surveys, non-participant observation, and focus group interviews, the study evaluates students' learning outcomes. The results indicate that the ARCS-V motivation model improves students' learning motivation and the four key abilities mentioned. During interviews, students expressed that the engaging nature of the design topics significantly enhances their learning focus, increases practical design skills during the course, and is perceived as applicable in future workplaces. Eventually, the results obtained through this research, it is not only can improve students' learning initiative and learning effectiveness, but also can cultivate students' perception in the living environment, thereby solidifying the foundation of students' design practical ability. It can also be used as a reference for design practice teaching of other related design education fields and curriculum planning.

Keywords: ARCS-V Motivational Model, Design Education, Teaching Innovation

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Introduction

Innovations in digital technology have led to the emergence of a new knowledge society, with multiple and easily accessible learning channels expanding the scope of "design" significantly. In today's era, the standard for good designers has risen; they are expected not only to excel in design but also to possess the "21" ability—Insight and Integration (Shao, 2019). Particularly after the outbreak of COVID-19, the overall teaching environment and methods have evolved. Learning now extends beyond schools and families to a broader, globalized context (Biwer et al., 2021). The application of various teaching tools and digital devices has transformed traditional teaching modes, creating a sense of estrangement between teachers and students, as well as among peers (Liao, 2022). The impact of the epidemic in recent years has shown that digital technology indeed influences the nourishment and guidance needed in practical design courses. Students are inundated with information devices and online resources, leading to a lack of motivation, difficulty concentrating, and challenges in exploring new knowledge independently, which contradicts the proper cultivation of design talents in this era.

Therefore, teaching methods and strategies in design education need to keep pace with the times. Effective teaching methods and strategies can not only spark students' interest in learning but also increase their concentration, motivation, desire to challenge, and ability to seize learning opportunities. This is crucial in guiding students' learning adaptability. Design students, in particular, should possess creativity, design practice skills, social empathy, and problem-solving abilities. Empathy, as a key foundation for understanding audience needs, is a crucial process in human-centered design (Foster, 2019; Rosa et al., 2021; Liu et al., 2024). However, students today often lack observation and experience with their surroundings, impairing their ability to empathize with target groups during the development of design concepts. This results in a lack of deep thinking and reflection in design concept development, and insufficient consideration of market demand practical application, making design concepts vague or merely formal.

Papanek (2005) argues that the main problem with design education is its disconnection from the real world, with theoretical knowledge remaining abstract and detached from reality. While traditional design education forms an important infrastructure for design knowledge, it may not fully meet the needs of contemporary society (Norman, 2017). Today's designers' responsibilities are expanding from technical to organizational and managerial levels. To solve complex, large-scale design problems in the future, it is essential to nurture design students' organizational and managerial skills to support the application of traditional design skills (Meyer & Norman, 2020). The ARCS-V motivation model, developed by Professor Keller of Florida State University in the late 1970s, focuses on stimulating student interest and motivation. This model emphasizes five key elements: Attention, Relevance, Confidence, Satisfaction, and Volition, to motivate students to learn (Changes and Adaptations:, 2010). The model considers both internal student factors and external teaching environment factors, helping educators understand students' learning needs and develop strategies to enhance their interest and performance. Many studies have shown that the ARCS-V motivation model can trigger and maintain student motivation, enhancing learning effectiveness and persistence (Changes and Adaptations, 2010; Deimann & Bastiaens, 2010; Keller, 2012; Ucar & Kumtepe, 2020).

At the same time, adaptability is essential for individuals to live in harmony with their environment. Good adaptability means that individuals can adjust their needs and

continuously make dynamic and static adjustments with the environment, adopting positive attitudes and strategies to solve problems in environmental interactions, thus achieving harmonious and stable self-realization (Simons et al., 1994). Summarizing the definitions of experts and scholars, learning adaptation is defined as an individual's ability to adjust to the overall learning environment, commitment to learning, and sense of belonging during the learning process. This includes the capacity to use appropriate strategies and resources and adjust one's attitude when encountering difficulties and challenges to solve learning problems and difficulties (Ting & Yeh, 2021).

When students face a digital teaching and learning environment, they need stronger autonomy and resource management strategies to adapt to the complex and changing social environment and accept new challenges and stimuli. However, for many students, adapting to a high level of autonomy and successfully applying various resources to their studies in the early years of college is challenging (Rasheed et al., 2020; Biber et al., 2021). The World Economic Forum (WEF) proposed a new education paradigm in January 2020. In the era of industrial innovation towards automated production and value creation, education faces a critical moment of change in the content and experience of learning, with lifelong learning and self-directed learning at its core (World Economic Forum, 2020).

In recent years, there has been a growing trend of exploratory education and self-directed learning in Taiwan, aligning with current educational goals of naturalization, living, teamwork, and the value of trust. In the systematic teaching process, instructors guide learners to experience, reflect, and practice from activities to expand their potential (Pan, 2018). Therefore, in the face of the complex and diverse information on the Internet, school education should help students maintain their motivation and passion for learning. It should guide them to learn through the interaction of self, others, society, and nature, cultivating them to become independent learners with a spirit of exploration (Hung, 2020).

For designers, observation is a crucial way to understand and evaluate users' experiences of a product or service. By observing and analyzing users, designers can determine whether their concepts and products meet real societal needs. Observation involves more than just looking with the eyes; it includes activating different perceptual senses to collect data, analyzing and interpreting this data in a goal-oriented manner, and then exploring the problems behind phenomena to find solutions (Boudreau et al., 2008). Observation is also a way of learning new things and broadening horizons (Bandura, 1977). Therefore, apart from learning professional design knowledge in the classroom, students can internalize what they have seen and heard in daily life through observation. Good observation of life helps designers collect users' daily habits and behaviors and enables them to think about solutions from different perspectives. This, in turn, can promote the innovative development of product design.

In a practical product design course, students need not only basic knowledge of product design but also empathy and understanding of the living environment and social issues. This allows them to apply their knowledge to solve social problems and meet needs. In light of future social trends and development, teachers should consider how to use teaching design to guide students in effectively utilizing digital resources and tools to achieve creative design practice, cultivating pragmatic design talents with innovative thinking. Accordingly, this study integrates the ARCS-V motivation model into the core design courses of the Department of Creative Life Design at National Yunlin University of Science and Technology, focusing on second-year students. The goal is to develop four important design core competencies: "learning to adapt," "learning to explore," "design observation," and

"learning to use," addressing issues identified in the teaching scene. These four core competencies are described in detail below:

1. Learning Adaptability (LA): To shorten the transition period of course articulation and enhance students' motivation and positive attitude towards learning.
2. Exploration Learning (EL): To enhance students' motivation and ambition to actively and deeply explore problems.
3. Observation (OB): To enhance students' ability to observe social phenomena during conceptual development, leading to design solutions that address problems.
4. Learning to Apply (LTA): To cultivate students' ability to implement design concepts and ideas in practice.

The Product Design Practicum course is divided into five stages: "Introduction to Topic," "Problem Exploration," "Proposal Conceptualization," "Design Practice," and "Final Presentation." This structure guides students in creating design proposals that align closely with the course theme and practical applications. Students are expected to progressively acquire basic design skills at various stages of the course. The overall study structure is shown in Figure 1.

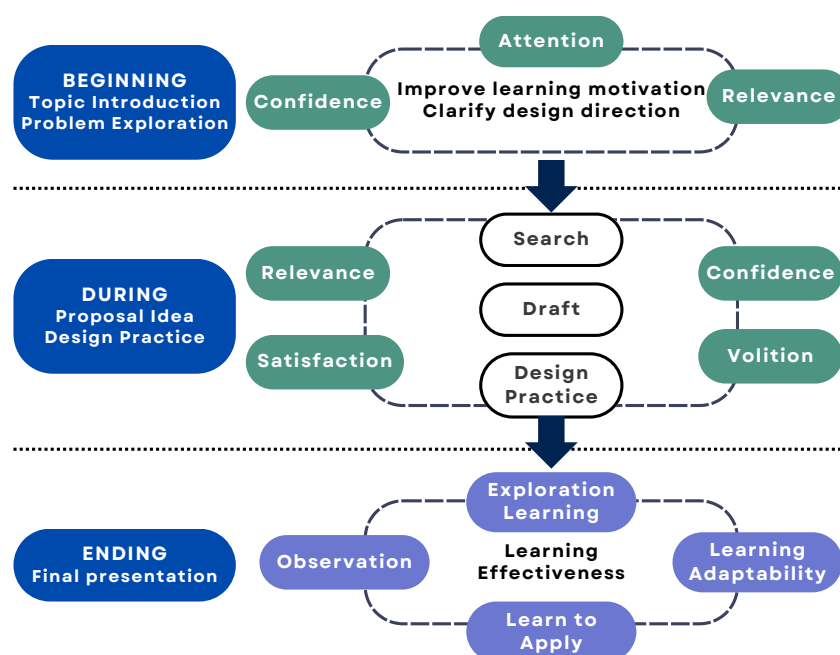


Figure 1: ARCS-V Motivational Modeling into Teaching Innovation Research Framework.

Methodology

This course, "Creative Life Design (I) (II)," spans a full academic year, with each segment lasting six weeks, focusing on innovative product design practices. The course employs both group and individual learning approaches. The research subjects are 39 sophomore students from the Department of Creative Life Design at National Yunlin University of Science and Technology, comprising 4 male and 35 female students. All participants have completed basic design courses in their first year and possess certain product design skills.

For this study, a pre-course and post-course questionnaire survey was conducted. Participant observation was employed during weekly classes to monitor interactions among students, teachers, and peers, and focus group interviews were conducted after the course concluded.

The results from these three assessments were analyzed to identify improvements in teaching and learning. The findings on teaching innovations were compiled and used to evaluate teaching effectiveness, as shown in Figure 2.

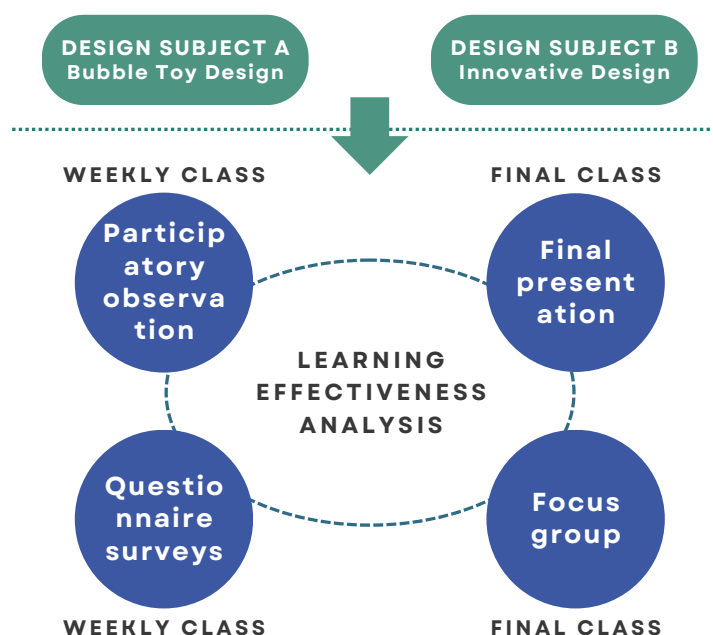


Figure 2: Course design and process.

To assess the learning status and effectiveness of the students in the design practice course, the researcher conducted pre-test and post-test questionnaires. The content of the questionnaire was based on Keller's (2010) IMMS scale and the Volition part of Liu (2003) Learning Motivation Scale, comprising a total of 47 questions. Experts were invited to review and revise the questionnaire content. Additionally, students were asked to complete the "Self-Assessment of Competence" (15 questions in total) simultaneously. This self-assessment allowed students to reflect on their learning process, identify difficulties, and provide timely feedback to teachers, promoting continuous learning and improving learning outcomes (Broadfoot et al., 2002; Klenowski, 2009).

Result

To evaluate the effectiveness of students' learning in the product design course, this study utilized a paired-sample t-test to analyze the questionnaire survey data. Significant differences were found in "Attention," "Relevance," "Confidence," "Satisfaction," and "Volition" before and after the course.

Table 1: Analysis of ARCS-V motivation survey pre-test and post-test

	N	Pre-test		Post-test		<i>t</i>	<i>p</i>	Cohen's <i>d</i>
		Mean	SD	Mean	SD			
Attention	39	3.51	0.34	3.69	0.41	-2.06	.046*	.331
Relevance	39	3.64	0.36	3.93	0.43	-3.04	.004**	.487
Confidence	39	3.22	0.30	3.75	0.38	-6.18	.000***	.989
Satisfaction	39	3.65	0.37	4.00	0.51	-3.49	.001**	.560
Volition	39	3.59	0.46	3.89	0.53	-2.62	.013*	.419

$p^{***}<0.001$, $p^{**}<0.01$, $p^{*}<0.05$

In order to understand the relationship between the differences in the four competencies of the students, paired-sample t-tests and correlation analyses were conducted. As shown in Table 2, out of the four sets of paired data, three sets exhibited anomalies.

Table 2: Student's four key competencies: Matching samples for testing.

	N	Pre-test		Post-test		<i>t</i>	<i>p</i>	Cohen's <i>d</i>
		Mean	SD	Mean	SD			
Learning Adaptability (LA)	39	3.49	0.57	3.98	0.48	-4.252	.000***	.648
Exploration Learning (EL)	39	3.51	0.66	3.83	0.64	-2.178	.035*	.332
Observation (OB)	39	3.89	0.56	4.07	0.63	-1.566	.125	.239
Learn to Apply (LTA)	39	3.58	0.73	3.98	0.74	-2.240	.030*	.342

Interviews revealed that, at the beginning of the course, students had difficulty adapting to the design software and learning teamwork. However, after the course, students reported that the engaging nature of the design theme and its introduction significantly enhanced their attention to the learning process. The design materials used in the course were traditional natural materials from Taiwan, which students found meaningful. They felt that the design topic represented an innovative combination of Taiwan's traditional culture and modern culture, making it a highly valuable design experience.

Conclusion

In view of the above, the four key competencies corresponding to each stage of the ARCS-V motivation model in the design course are summarized in Figure 3 below. The four teaching methods of Attention, Relevance, Confidence, and Volition are applied before the course begins (Topic Introduction). Interesting case studies are used to stimulate students' interest in learning, and discussions guide them to make connections to daily life. Students can freely choose their topic groups, enhancing their acceptance of the course.

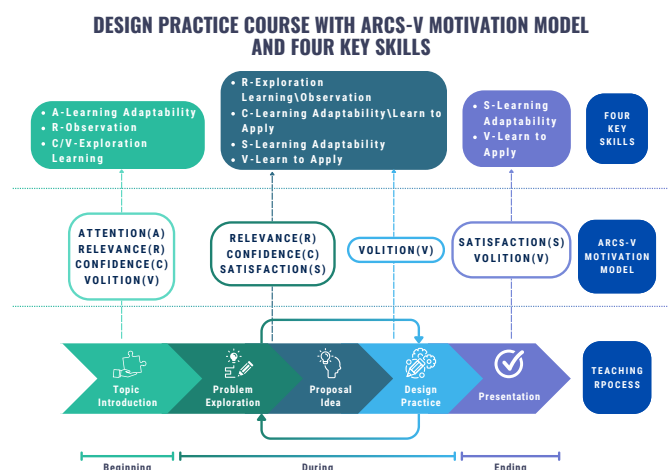


Figure 3: Design practice course with ARCS-V motivation model and four key skills

During the course, the stages of Problem Exploration, Proposal Idea, and Design Practice are carried out cyclically. The four teaching methods of Relevance, Confidence, Satisfaction, and Volition are utilized. In brainstorming sessions and teacher-student discussions, the Relevance strategy guides students to observe the people and things around them, establishing real and reliable target groups and their needs. Various teaching methods, such as off-campus teaching and lectures, allow students to learn through play and practical experiences, differing from digital learning.

In the design proposal process, students need guidance to set challenging yet achievable design goals. Increasing students' access to software and design tools (e.g., factory learning) helps them overcome the frustration of having ideas but not being able to realize them. The final course presentation employs the Satisfaction and Volition strategies, providing a venue for students to showcase their work and strengths, increasing peer communication and interaction, and enhancing their presentation skills. This prepares them to adapt flexibly to various social environments in the future.

Differences were found between the two groups in terms of motivation, exploration, and depth of design concepts. Although the theme of "Bubble Toys" was closer to daily life, the students' works lacked a sense of life and detailed thinking. Conversely, the "Tetrapanax papyrifer in Taiwan" group demonstrated more exploratory and innovative designs. In understanding the new material, students had to consider its social applicability and innovative value, resulting in product designs applicable in various aspects of life. This may be due to two reasons: the simplicity of the theme, which left little room for creative extension, and the students' interest in the theme. During focus group interviews, it was clear that students preferred the "Tetrapanax papyrifer in Taiwan" theme. Quantitative analysis also showed no significant change in students' design observation abilities.

During discussions with students, it was found that some lacked clear product design concepts and often expressed confusion, such as "I don't know why I have to do this design." This indicated they had not yet mastered the systematic design process or utilized their design observation skills effectively. This needs to be addressed in future teaching.

Given the limited number of students in this course, future efforts can expand the student base to test the impact of different design themes on critical abilities and learning interests. Additionally, teaching methods can be refined based on student feedback to enhance their creativity and independence. This will further improve the learning potential and future competitiveness of Taiwanese design students in the job market.

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Contact email: lousccc1009@gmail.com

The Phenomenon of Murder as a Symbolic Archetype in the Albanian Oral Narrative

Valbona Kalo, Alexander Xhuvani University, Albania

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This study investigates the symbolic archetype of murder within Albanian oral narratives, a pivotal element deeply embedded in Albanian folklore. It aims to decode the messages conveyed by the collective unconscious through various murder scenarios—such as sacrifice, fatality, and familial homicide—and assess their impact on shaping the social and cultural fabric of the Albanian community. By analyzing these narratives through a multi-layered interpretative lens, the research explores how these archetypes not only reflect the core values and existential queries of the Albanian people but also contribute to the construction and reinforcement of national identity. This paper argues that the recurring murder themes do more than perpetuate mythic symbols; they also transmit stable moral and legal values crucial for maintaining the continuity and coherence of the Albanian societal structure. The findings suggest that these narratives serve as dynamic interfaces between traditional values and contemporary societal challenges, thus playing a critical role in the ongoing negotiation of cultural identity.

Keywords: Albanian Folklore, Symbolic Archetypes, Collective Unconscious, Narrative Analysis, Cultural Identity

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Introduction

Human beings have continuously created narratives that not only reflect their existence but also shape their cultural and social identities. These stories are found within "the legends and myths of their social groups" (McAdams, 2015), where the motif of murder in the Albanian oral tradition stands as a profound testament to the complex interplay between individual actions and collective morality. This research paper embarks on an exploratory journey to decipher the symbolic archetypes of murder that resonate deeply within the Albanian folklore tradition, tracing their implications both psychologically and socially.

Drawing on Carl Jung's theory, this study delves into how these archetypes, as universal, archaic patterns and images that derive from the collective unconscious, manifest within Albanian narratives (Jung, 1969). The recurring themes of murder—whether depicted as sacrifice, fatality, or familial betrayal—reveal a rich mosaic of mythic and cultural significances that have long influenced the Albanian social construct. These narratives are not merely relics of a bygone era; rather, they are vibrant expressions of collective concerns, addressing existential questions and societal dilemmas faced by the Albanian people through the centuries. By examining these stories through a modern analytical lens, this study aims to uncover the layers of symbolic meaning that have contributed to the formation and perpetuation of Albanian cultural identity. Dundes emphasizes the importance of interpreting folklore "to understand these deeper meanings", while Bauman highlights "the role of performance in conveying and reinforcing these narratives within the community" (Dundes, 1980; Bauman, 1986).

To illustrate the complexity and variety of the murder archetypes in Albanian folklore, this paper will include a descriptive table summarizing key themes, characters, and societal values embedded within these narratives. This summary will not only serve as a reference point for further discussion but also highlight the intrinsic link between folklore and the socio-ethical frameworks it influences.

Archetype	Description	Symbolic Meaning	Societal Impact	Specific Examples
Sacrifice	Murders occurring as part of ritualistic or heroic acts.	Represents purification and renewal.	Reinforces the values of sacrifice for the greater good.	The sacrifice of Rozafa in castle building.
Fatality	Inevitable murders driven by fate or destiny.	Highlights the inescapable nature of fate.	Questions the role of individual agency within societal constraints.	The murder in "The Found Son" tale.
Familial	Murders involving family members, often linked to betrayal.	Explores trust and betrayal within family bonds.	Reflects on the complexities of family dynamics and moral obligations.	The murder of Gjoni by Pjetri over a woman.

Table 1: Archetypes of murder in Albanian folklore and their societal implications

I. Murder As Sacrifice and Redemption

Narratives can be seen as a "metaphor for the understanding of human existence," suggesting that the history of people's lives can be viewed as "a dynamic intrigue through which they construct themselves and their identity" (Schiff, 2012). From this perspective, it is important to note that primordial murder, considered by scholars, is the act that fundamentally changed human existence from its inception. The first known divine act, recounted by primitives, is described as a murder—a sacrifice where a god killed a sea monster and used its body parts to create the cosmos. In all mythologies and ancient rituals of the paleo-cultivation period, the "imitation of dei" acts as a justification for "the bloody sacrifices that preceded the construction of primitive dwellings", a temple, bridges, or castles (Eliade, 2019).

The memory reactivated by the rites (i.e., the repetition of primordial murder) plays a decisive role as ancient societies built their daily lives, structuring actions under the weight of responsibility for the choices made. Under the weight of this argument, we will analyze why the stories of building castles, bridges, and monasteries in the oldest Albanian legends and ballads intertwine death with the figures of young women, moreover mothers.

If the Castle is under construction, the mother is sacrificed alive, but the infant survives; if the Castle is completed, the sacrifice spares not even the infant. The fantastical elements of breastfeeding after walling or the infant surviving to inherit do not soften the murder itself or suicide, as both, beyond the polysemic nature of the narrative, reflect a fundamental substratum of the social structures of the Albanian people. Individual consciousness bursts precisely in these mythical and legendary archetypes as a symbolically directed call to the collective unconscious.

Rozafa and Argjiro die in different times, the former in peace and the latter in war, and both are mothers. No enemy threatens survival or accelerates human sacrifice in the case of the legend, perhaps the oldest fully preserved to this day, yet "four men come together and decide that they needed a new bride to keep the walls that fell at night standing" (Haxhihasani, 1966). The three masons symbolize the powerlessness of instinct, of the collective unconscious, in a situation where physical strength is useless. The macabre suggestion to wall one of the brides comes from the one deemed sacred, the only one aware of the real reasons for the walls' collapse, which he certainly does not make clear while showing the solution to keep the walls standing: Go first, oh sacred alive: /.../ *Legacy oh sacred alive, do you know to tell us?/...-/If you work right/ Tie faith and bond, / do not talk in the guesthouse/ Tomorrow hope, dawn lights/ Whichever vase gives you bread/ That mason in the castle wall* (Palaj & Kurti, 1937).

The figure of the old pagan has its origins in the execution of old rituals; he is an "agendum," a perpetual and continuous need, as are the harvests and the reproduction of the tribe, as is the preparation of the young for life in society and the inevitable life of the beyond. "Thus, in the symbolic mythical sense of origin and fate: society explains to the young where this world came from and where we are going, and with instructive figures, it draws the tableau of the world and the fate of man" (Wellek & Warren, 2007).

As the holy old man in the ballad of walling symbolizes consciousness, these walls that must not fall symbolize precisely the national construct of this people aspiring to become a nation, or its ethnos. The creative bard has placed himself with the old man and speaks through him, expressing a part of the ancient stratification of primitive human behavior, marked through

hierarchical man-woman relationships, where the latter must necessarily 'prove' the importance of her existence, through macabre sacrifice in the name of life. Victor Turner's analysis of liminal spaces within societal rituals provides a lens through which we can examine these narratives of sacrifice and murder, viewing these acts not merely as plot elements but "as ritualistic performances that navigate and negotiate communal values and transitions" (Turner, 1969).

In this context, the walls—and the rituals surrounding their construction and the sacrifices they entail—emerge not just as physical structures but as potent symbols of communal cohesion and the liminal phases that the community undergoes in its quest for identity and stability. These narratives underscore the transformative power of liminality where the community collectively engages in the reaffirmation of its cultural and social ethos, navigating through the ambiguities of tradition and modernity.

II. The Role of Fate and Community in Albanian Balladic Traditions and the Tragic Element of Love

In the analysis of murder as fatality within Albanian ballads, themes intricately intertwine with family institutions and inter-tribal relationships, echoing ancient Greco-Roman sacrificial rites. This tragic inevitability aligns with Vladimir Propp's narrative functions, where each character is locked into a role that inevitably drives the story towards its preordained climax (Propp, 1968). This structural function of characters not only propels the narrative but also emphasizes the fatalistic nature of the roles prescribed by societal norms.

The ballad "The Song of the Young Maiden," collected in the 1930s, exemplifies this narrative form. In it, the bride is tragically bound by a customary code to proceed with her wedding despite her severe illness, illustrating the relentless pull of fate and the power of communal expectations over individual will. The text captures this moment of fateful resignation: "I tan Shtufi asht mbledhë në kuvend, thue se viti s'kish tjetër ditë?!" ("All of Shtufi gathered in assembly, as if the year had no other day?!") (Shabani, 1943). Despite her pleas, which resonate with desperation and impending doom, the community insists on adherence to traditional norms. Her tragic procession ends in her death, a poignant moment that highlights the interplay between personal tragedy and communal duty.

Clifford Geertz's concept of "thick description" elucidates these narratives, suggesting that these ballads do more than tell stories—they serve as culturally encoded practices that articulate complex social norms, personal emotions, and communal values within a richly textured cultural framework (Geertz, 1973). The narratives, therefore, function not only as entertainment but also as moral and social instruction, reflecting upon and reinforcing the moral and societal ethos of the Albanian people.

This cultural portrayal extends beyond mere storytelling, positioning these ballads as crucial cultural artifacts that negotiate community bonds and cultural identity. They illuminate the societal structure and individual psyche of the Albanian communities, revealing how traditions and moral imperatives shape the social fabric. Through these narratives, the community perpetuates its values and beliefs, educating the younger generation on the roles and expectations inherent in their culture. In this way, the ballads contribute significantly to the continuity and reinforcement of cultural norms and identity among Albanians.

Additionally, the tragic pain as a sign of lost love manifests with full force in Albanian folk creations. In tragic circumstances where life prevents the realization of love, not only patriarchal mindsets but also jealousy and human malignancy play roles in thwarting love. Ismail Kadare reflects on this, stating, "In Albanian life, love was generally a drama... To love meant to conflict with society, with family, customs, property, with everything, an unlawful and terrible storm" (Kadare, 1980). In the medieval context, where marital connections were aimed at strengthening political alliances, the fate of Albanian women was predestined to be sacrificed for these broader societal interests.

In supporting this notion, where love in real life could not be achieved due to heavy moral codes, the people realized it in oral art, projecting the ideal of love. Defining humans as "homo narrans," modern studies affirm that the person's life story is filled with significant segments where "core episodes" provide special meaning to existence and allow for the reinterpretation of the past with imaginative capacity toward the future (McAdams, 1988).

III. Matricide and Patricide in Albanian Oral Tradition

Many researchers like Lambertz, Çabej, Gjeçovi, and Fulvio Cordinano have noted the presence of ancient archetypes such as Oedipus and Penelope in Albanian oral creativity, reflecting deep mythological roots (Cordinano, 1931). The song of Zuku Bajraktar, who is blinded by his mother along with his horse and subsequently becomes his mother's murderer—aptly termed the Albanian Oresteia—along with the legend of Dedalia, are unique narrative pieces in Albanian folklore that convey the killing of an elderly woman.

For scholars like Stavro Skendi, who studied Albanian and South Slavic epic traditions, the motifs in Zuku's song are strange and foreign to the Albanian narrative landscape, suggesting a Montenegrin epic origin (Skendi, 1954). Albanian customary law explicitly states: "Blood is owed for a finger, a priest's wife does not fall under blood feud laws. A woman is not subject to the Kanun, she is not to be touched, climbed on, nor is blood demanded or owed for her" (Gjeçovi, 1999).

The legend of "The Found Son" collected by the renowned researcher Kolë Shtjefni resonates closely with the well-known Greek mythology of Oedipus, who kills his father and marries his mother. This oral tale seems to originate early on, or at least concurrently with Albanian ballads of recognition and walling (Shtjefni, 1999).

This ancient narrative, devoid of any Christian elements, likely dates back to pagan times. It does not mention the influence of the Kanun or any specific temporal or spatial details, suggesting that this legend might be as old as the Greek myth of Oedipus itself, given the similar existential conditions of the Balkan peoples; it only differs in the element of recognition, which might have been added later when a morally acceptable resolution was sought. The essence of the tragedy lies in fate. Like Sophocles' tragedy, where Oedipus struggles to uncover his fate, the son in the Mirdita legend discovers his fate only when he realizes that fate has helped him avoid the grave sin of lying with his mother. However, unlike Oedipus, who becomes a perpetual slave to his fate because he consummated the sinful act of a "blind" marriage, the son in the Albanian oral tale does not punish himself with blinding or any other form, as in the Albanian mountaineer's judgment, the moral aspect weighs heavily; he might forgive blood but not shame, incest, sexual debauchery, or moral crime (Dedaj, 2021).

The Albanian legend, as an expression of the moral identity code, approaches sin but does not collapse to encompass the potential sinner because something salvational flies from the folds of conscience, a dove, a stream of blood, and instead of the tragedy, the miracle of recognition of mother and son occurs. Father Marin Sirdani writes that this oral tale was widespread throughout Dukagjin, bringing a variant that he collected in Pult, heard in two or three places. He calls it a fairy tale and titles it "Nama e Orës": "A man went to light in the mountains to cut some branches to make water troughs to sell, to earn a living. The village where he had his home was about six hours' walk from that place"... While working, he suddenly hears a woman's voice calling her companion. The man listens and thinks maybe that woman is a shepherdess who has lost her sheep and has gone out to find them at night. From the top of the opposite mountain responds another woman's voice, with a stronger and more pronounced squeal, which makes all the surrounding mountains echo: "Now we leave a son (mentions his name), how shall we assign his fate?" "To kill the Father and to take the Mother as a wife!" Just as the tragedy "Oedipus Rex" is fed by myth and legend, the Mirdita legend of The Found Son is of folkloric origin, but it comes as it was conceived, unrefined. Yet, it contains all the elements of the Oedipus complex, except for the final act, the consummation of the son's marriage to his mother. Here the legend deviates from this universal complex, maintaining the deeply Albanian color of the recognition motif, which is naturally known in other peoples of the Balkan region as well. The age of the legend must be ancient, from pagan times, as it does not mention elements of Christianity, the influence of the Kanun, nor does it contain temporal and spatial addresses. It is possible that this legend is contemporary with the Greek myth of Oedipus itself, as that was the way people in the Balkans thought under the same conditions; it is only distinguished by the recognition element, which may have been added later when a morally acceptable solution was sought. The tragic essence of fate is significant (Dedaj, 2021). As in Sophocles' tragedy, where Oedipus struggles to uncover his fate, the son in the Mirdita legend discovers his fate only when he realizes that fate has helped him avoid the grave sin of lying with his mother. However, unlike Oedipus, who becomes a perpetual slave to his fate because he consummated the sinful act of a "blind" marriage, the son in the Albanian oral tale does not punish himself with blinding or any other form, as in the Albanian mountaineer's judgment, the moral aspect weighs heavily; he might forgive blood but not shame, incest, sexual debauchery, or moral crime (Dedaj, 2021). The Albanian legend, as an expression of the moral identity code, approaches sin but does not collapse to encompass the potential sinner because something salvational flies from the folds of conscience, a dove, a stream of blood, and instead of the tragedy, the miracle of recognition of mother and son occurs. Father Marin Sirdani writes that this oral tale was widespread throughout Dukagjin, bringing a variant that he collected in Pult, heard in two or three places. He calls it a fairy tale and titles it 'Nama e Orës': 'A man went to light in the mountains to cut some branches to make water troughs to sell, to earn a living. The village where he had his home was about six hours' walk from that place'... While working, he suddenly hears a woman's voice calling her companion. The man listens and thinks maybe that woman is a shepherdess who has lost her sheep and has gone out to find them at night. From the top of the opposite mountain responds another woman's voice, with a stronger and more pronounced squeal, which makes all the surrounding mountains echo: 'Now we leave a son (mentions his name), how shall we assign his fate?' 'To kill the Father and to take the Mother as a wife!'

Richard Bauman's analysis of story, performance, and event highlights how the enactment of such tales in a communal setting "not only narrates a story but also performs a cultural function, reinforcing social norms and transmitting values through the very act of telling" (Bauman, 1986). The oral performance of this legend, especially in a community gathering,

transforms it from a mere narrative into a powerful cultural event that articulates complex social norms and personal emotions, engaging the listeners in a shared experience that reaffirms their cultural identity and moral values.

Conclusion

The exploration of murder archetypes within Albanian oral narratives has unveiled profound layers of cultural symbolism and social implications embedded in these folkloric elements. These narratives act as mirrors, reflecting the historical and ethical paradigms that have shaped the collective consciousness of the Albanian people across centuries. By delving into such archetypes as sacrifice, fatality, and familial betrayal, this study underscores their crucial role in deciphering the moral and societal structures inherent in Albanian culture.

The persistent recurrence of these themes across generations underscores their enduring relevance and their role in navigating the complexities of human behavior within a cultural matrix. They encapsulate the perennial struggle between personal agency and fate, the tension between family loyalty and personal desires, and the profound acts of sacrifice made for communal stability. This research highlights the transcendent power of folklore, which influences laws, social norms, and the collective national identity far beyond mere storytelling.

As societies evolve, the timeless narratives of Albanian folklore continue to provide a valuable framework for interpreting contemporary issues through the lens of the past. The archetypes discussed not only enrich our understanding of Albanian cultural heritage but also offer a unique perspective on universal themes of justice, honor, and moral duty. Future research could explore how these narratives adapt in the context of modern pressures and global influences, potentially altering their form and function within the community.

In conclusion, the enduring legacy of these narratives continues to shape and inform the values and beliefs of the Albanian people, demonstrating the inextricable link between folklore and the molding of societal ethos. This study highlights the need for a deeper engagement with folklore studies to appreciate its profound impact on social and cultural dynamics.

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Contact email: Valbona.Kalo@uniel.edu.al

The Development of Animation Video-Based Learning Material by Combining Mobile Applications for Teaching English at the Secondary Level

Sandhi Fattahul Rohman, Universitas Muhammadiyah Malang, Indonesia

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Enhancing the teaching and learning experience is very important as teachers and students are forced to deal with any development technologies at this age. Animation video-based learning material is considered as one kind of source that can be utilized for enhancing learning experiences. This research aimed to develop an animation video-based learning material by combining some mobile applications (ZEPETO and Canva). A Research and Development (R&D) with ADDIE model was employed as the model to create an effective animation video-based learning material. Data were sourced from 31 students and one teacher of 7th grade Junior High School. Data collection involved interview with the teacher for the analysis stage, experts' validation before implementing the material in class, and questionnaires for the students in the evaluation stage. The data analysis technique used was descriptive statistical analysis. The developed materials focused on descriptive text and were positively rated by media and content experts. In the implementation stage, the video included a discussion about hobbies, a material presentation, some examples of "How to express and ask about someone's hobbies", and a speaking exercise. In the evaluation stage, the students' perception revealed positive results, with students noting increased engagement, improved comprehension, enhanced motivation, and made them learned how to pronounce English sentences correctly. The results indicate that the development of animation video-based learning material by combining some mobile applications has the potential to significantly enhance students' language skills, understanding, and motivation in learning English.

Keywords: Animation Videos, English Learning, Mobile Applications

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Introduction

In the 21st century, it is necessary to apply modern technology to the teaching and learning process. Media technology is now employed by educational institutions as a teaching tool to raise the quality of instruction (Saragih & Simanjuntak, 2021). Technology in education, particularly when it comes to teaching, learning, and practicing English, has the potential to modify some of the current pedagogical approaches while also allowing students to acquire and practice the language (Diah et al., 2020). To improve the effectiveness of teaching and learning, the field of education is constantly searching for innovative methods. In short, teachers make use of the potential of technology to transform the educational environment as its impact grows.

Students are forced to deal with any development technologies at this age. Digital media is considered one of the best media to use out of all those that are available. In the digital age, educational resources have expanded to reduce the obstacles to teaching-learning activities. According to Kusdinar et al., (2023), students' experiences as members of the millennial generation had a close relationship to the digital media type. The majority of schools offer tools to facilitate the use of technology in the classroom, so the teacher's role is crucial in integrating new technologies and utilizing them to give students the best possible digital media learning experience (Günaydin & Karamete, 2016). Videos are one kind of source that can be utilized for digital media education. Video-based material that can be paused, replayed, and accelerated can be actively interactive. According to Benkada & Mocozet (2017), annotated interactive videos include an additional layer of information and metadata that promotes different kinds of interactions. Conclusively, the incorporation of digital media into education, namely via video-based instruction, is vital in enhancing comprehensive educational engagement for students.

Innovative technologies like gamification (Santosa et al., 2022; Shortt et al., 2023), classroom immersion virtual technologies (Budiarti et al., 2023; Huang et al., 2023), and video-based learning (Merianti et al., 2023) have been introduced to and trained for by many Indonesian and international institutions. Certain researchers have shown that using video-based materials helps motivate students to learn more in-depth skills like vocabulary, speaking, writing, and listening, as well as increase educational engagement and allow for a deeper understanding of the subject matter. According to a study by Rustambekovna & Adambayevna (2020), video-based learning can change a classroom's role from one of passive instruction to one of dynamic instruction. Additionally, it encourages students to actively speak, so video-based learning can help teachers create a more enjoyable and relaxed learning atmosphere while also greatly increasing student participation in the classroom. Additionally, interactive videos can help students meet their writing needs in class and contribute to the sustainability of the age of digital media (Kusdinar et al., 2023). Video-based learning not only enhances student motivation, engagement, and deeper understanding of subjects but also contributes to a more inclusive, globally-connected, and digitally literate educational landscape.

There are many different types of video-based learning tools available, including slideshow videos (Mubar, 2015), animation or cartoon videos (Laksmi et al., 2021), and TED talk videos (Maharani et al., 2023). Some studies have employed PowToon to apply the use of animation or cartoon videos (Adnyani et al., 2020; Semaan & Ismail, 2018; Ningsih et al., 2023). Other media applications that can be used for developing material through animation video are ZEPETO and Canva. ZEPETO is a role-playing game where the user may build and

personalize virtual avatars with various characteristics and communicate with other users in virtual worlds while Canva is an online graphic design application for creating graphics and presentations. With a unique roleplay and customization platform for increased student involvement, the integration of animation video-based learning via the ZEPETO and Canva applications hopefully offers an exciting study alternative.

The first-grade teacher of Junior High School was interviewed for preliminary research that revealed the need for technology-based English teaching materials that meet the needs of students as well as the syllabus. The media can take the form of animation videos, which attract the students and hold their interest for extended periods of time while keeping them exposed to real-world learning scenarios. The teacher said that the lack of consideration for the needs, backgrounds, and activities of the students in the general information in the materials meant that the student's needs were not met. The teacher places greater emphasis on the students' activities to be developed further. According to the teacher, animation video-based learning is intended to improve students' skills through a variety of exercises, particularly in speaking and listening. The teacher said that the only assignment book she could give students was one that was assembled from multiple sources. This is only one of the numerous issues that arise during the learning process for both teachers and students. It will be difficult to meet the curriculum's stated learning objectives if these issues remain. Thus, the purpose of this study is to develop English animation video-based learning materials that emphasize speaking and listening abilities in order to address the previously mentioned issues. ZEPETO and Canva will be used to carry out the animation and video-based learning materials. ZEPETO and Canva are simple for teachers to use since ZEPETO functions as a game and offers several interactive background modes, and Canva functions as a design tool that is ideal for use in education to create engaging presentations. Teachers may even design the character through ZEPETO and presentation design through Canva to interest students. Moreover, the research is expected to enhance students' involvement in educational activities and provide them with several assignments to be done after the material has been conducted.

Literature Review

Materials used in education are the content or information conveyed within a course. These consist of the course's readings, lectures, multimedia, textbooks, and other materials. According to Tomlinson (2011), materials are everything that is utilized to support language learners in learning the subject matter. A textbook, a photocopied handout, a newspaper, a paragraph written on a whiteboard, a video, or anything else that presents or educates about the language being taught are examples of materials. The development of learning resources that are based on video will be the main focus of this research. One type of digital instructional media that students choose to use during the learning process is video-based material (Ahmad & Afrizal, 2023). This is because it's entertaining to watch because it combines sound and visuals in one package.

While video instruction is valuable in today's classrooms, further improvements to the educational process are needed. As a result, there has been video creation that captures students' interest. Additionally, one kind of video that can be used to deliver engaging educational content is an animated video (Laksmi et al., 2021). Students can see and comprehend difficult concepts or processes with the help of animation. As well as simplifying messages and complex subjects, animation video-based learning can also help improve students' retention. Animation videos were established for primary school students

because they presented joyful materials (Pujiani et al., 2022). The students will not recognize that they are learning by watching that, and when the student's attention is caught, the material can be transferred effectively (Cicekci & Sadik, 2019). The integration of animation videos in education not only simplifies complex subjects, but encourages creativity, critical thinking, and technology literacy, giving students a dynamic and interesting learning experience.

The use of animation video-based material to create engaging content for students has been the subject of numerous studies. Research done by Fontela & Moraes (2022) revealed evidence that students' understanding of topic areas and perimeters can be deepened through the development of animation videos. It is believed that employing mobile learning is acceptable and can boost students' enthusiasm to learn (Sari & Nurcahyo, 2018). Additionally, Raditya & Kristiani (2022) discovered that teachers' anxiety can be decreased by using video animation. Their findings make explanation given that inexperienced and new teachers sometimes experience anxiety in the face of a silent classroom. Nevertheless, when these teachers used animation videos for learning, students were seen to be more "innovative" since they were less bored. According to Marini et al., (2023), the utilization of animation videos as a learning resource has the potential to enhance students' comprehension of the subject matter by raising their learning outcomes. Thus, this research will be focused on video-based learning material development through animation video with the use of ZEPETO and Canva applications. ZEPETO offered various options to customize the avatar, such as hairstyles, clothes, accessories, and backgrounds. Additionally, through the use of the Canva application, it can create incredible designs without having to use complicated design software. With a focus on the ZEPETO and Canva applications, this research aims to leverage its unique features, to enhance the development of animation video-based learning material, providing a promising avenue for elevating the educational experience.

Method

This research utilizes the Research and Development (R&D) methodology, which aims to produce targeted products and measure their effectiveness. R&D refers to a category of research design that encompasses resolving challenges encountered in the classroom, examining innovative ideas in the field of educational product development, developing educational products, obtaining expert validation, and conducting field testing of the finished product (Latif, 2012). The participants of this study include 31 students and one English teacher of 7th grade Junior High School who were taking English as a core subject. The product developed in this study is animation video-based learning material with the ADDIE model to create effective teaching video-based material. According to Mubar (2015), the ADDIE Model is designed to guarantee that students will fulfill the learning objectives and goals. The analysis, design, development, implementation, and evaluation phases make up the five stages of the ADDIE models.

To determine if the products were suitable for use as instructional tools, experts in the fields of media and material provided validation to the item during the development stage. The data analysis technique used was descriptive statistical analysis. The quantitative information was gathered from the two experts who evaluated the animation video: an IT expert for media validation and an English teacher for content validation. The two experts were recruited based on their competence in each of these two aspects of validity, following the example set by Brame (2015). The validity score was interpreted using Arikunto's (2013) validation equation and score categories:

Table 1. Experts Validation Analysis Score Category

Average Scores	Category
$3.75 < x \leq 4.00$	Very Good
$3.00 < x \leq 3.75$	Good
$2.25 < x \leq 3.00$	Moderate
$1.50 < x \leq 2.25$	Poor
$0.00 < x \leq 1.50$	Very Poor

Equation 1. Teaching Media Validation Score Equation

$$X = \frac{\Sigma}{N}$$

Description: X = Average score; Σ = the total number of answer values from the validator;
 N = number of validators.

In order to gain insight into students' perceptions during the animation video's evaluation stage, a questionnaire adapted from Khothori & Suzanne (2020) was employed as the research instrument. There were 17 items that should be responded to by the students by using the Likert scale which consisted of: Strongly Agree for = 4.00, Agree = 3.00, Disagree = 2.00, and Strongly Disagree = 1.00. The mean score of each item on the questionnaire was calculated and compared to the average value of the choices (3.00). This allowed students to agree with the statement in focus if their mean score was greater than the average (3.00) and disagree with it if it was less than 3.00. The mean scores for each questionnaire item were then compared to the average choice value using a one-sample t-test to determine if there was a significant difference from 3.00.

Findings

1. Analysis

In the first stage, material and learning objectives were analyzed from the viewpoint of the teacher. In order to gather information about the teaching-learning process from the teacher's perspective, an interview session was conducted with the English teacher without involving the students. Learning material was focused on the descriptive text which describes the characteristics of a specific thing with the target group being 7th grade Junior High School students. The topic was about describing hobbies, which are still rarely used. Thus, it makes it interesting to be a topic of an animation video. It focused on the students' listening and speaking skills, so the type of activity can be in the form of a speaking presentation in front of the class.

2. Design

The following stage involved designing a product which was the design of an animation video. The design had to be started after the learning material and objectives were examined. Applications like ZEPETO, Canva, and CapCut were used to facilitate product design. Utilizing the ZEPETO application, a mobile gaming application, animation videos were created. Some of the characters in the video have been chosen specifically to fit the topic of "Describing Hobbies".



Figure 1. Sample of a Character on ZEPETO “Describing Hobbies”



Figure 2. Sample of a Character on ZEPETO “Describing Hobbies”



Figure 3. Sample of a Character on ZEPETO “Describing Hobbies”

Then, the learning material was delivered through the Canva application which provides some presentation slides.



Figure 4. Sample of Canva Presentation Slide

All of the design was recorded by using the internal device screen recorder and then edited by using the CapCut application.



Figure 5. Editing with CapCut

3. Development

During the development phase, the prototype of the animation video was developed based on the design before. The development follows the following steps.

1. After downloading the ZEPETO application, click 'sign up' on the ZEPETO homepage for new users and register using a Facebook or Google account.
2. Then you can create your own character.

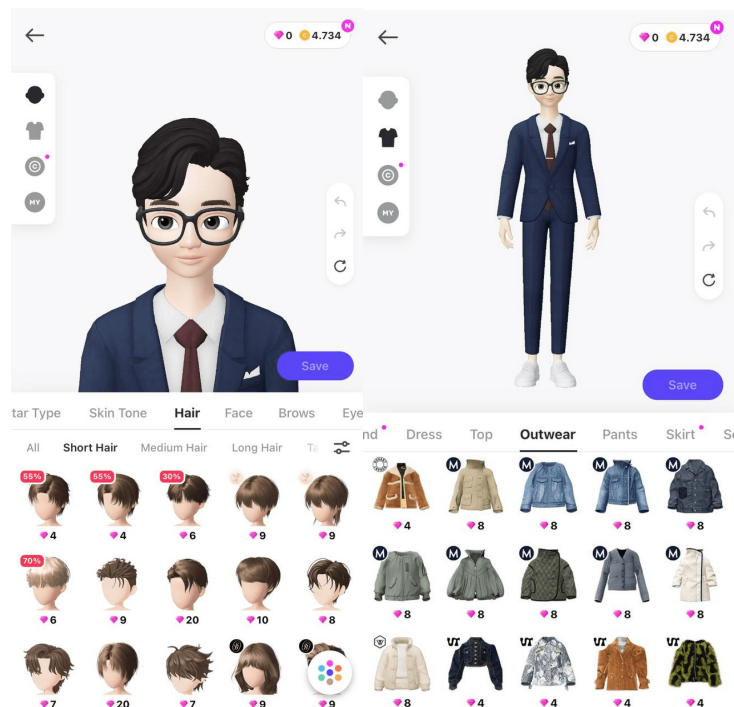


Figure 6 & 7. Sample of Creating a Character in ZEPETO

3. You can search the background called "ZEPETO world" to be used based on what you need.

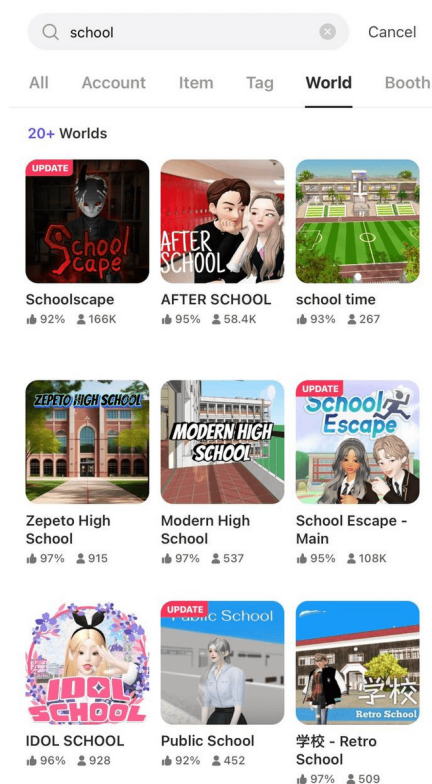


Figure 8. Sample of “ZEPETO World”

4. If you want to interact with each other, you need to ask someone to play with you.
5. After that, choose the best emoticon or action to be used for a "gimmick" of the interaction.
6. While having a conversation or interaction, record it by using "Screen Recorder" on your mobile phone device. If your device doesn't have a "Screen recorder" you can download it first on the "App/Play Store".
7. After finishing using ZEPETO as the animation video, download Canva and "Sign up" by using your "Google account".
8. Choose the best template to be used for presenting the material. Then recorded it by using a "Screen recorder".
9. After that, download the CapCut application to edit all of the video recordings that have been collected.
10. Using the CapCut application, for adding your voice in the interaction in the recording of the "ZEPETO application" you can also add the subtitle automatically based on your voice.
11. Add the Canva video recording to be edited after the ZEPETO recording has been completed.
12. Same as before, you can add your voice while also presenting the material provided on the slides.
13. In the CapCut application, you can cut your video, add signaling, voice-over, back song, and also a lot of templates can be used.
14. Then, download the final video to be conducted to the students in the class.

Before implementing the animation video through the class, the researcher needs to validate the animation video material to be appropriated to be sent in the class. Expert validation came from a media expert (Validator 1) and a material expert (Validator 2). The result of validations can be seen in the Table 2:

Table 2. Results of Experts' Validation

Statement	Validator 1	Validator 2	Mean Score
Use signaling to highlight important information.	3	4	3.50
Use a short video (6 minutes or less) to chunk information.	4	4	4.00
Eliminating loud music and eliminating complex backgrounds.	2	3	2.50
Match modality by using auditory and visual channels to convey complementary information (use tutorial videos that illustrate and explain phenomena Narrated animations)	4	4	4.00
Keep the video in brief (not more than 15 minutes)	4	4	4.00
Use conversational language.	4	4	4.00
Speak relatively quickly and with enthusiasm.	2	3	2.50

Create and/or package videos to emphasize relevance to the course in which they are used (Videos created for the class in which they are going to be used, with instructor narration explaining links to preceding material)	4	4	4.00
Packaging video with interactive questions (Integrate questions into videos)	3	3	3.00
Use interactive features that give students excitement.	2	4	3.00
Use guiding questions.	2	3	2.50
Make the video part of a larger assignment/activity.	4	4	4.00
TOTAL MEAN SCORE	3.16	3.66	3.40

Expert media who verified the product included an IT expert as well as a material content developer with over two years of video editing experience. According to the evaluation, this material was conceptually good as a learning media for 7th-grade students. The quality aspects consisted of sound clarity, images, signaling, and readability of the subtitles in the video. On the Likert scale, this media was at the stage of good quality. Every media element was consistent. However, there was one note that should be improved. The volume of the back sound should be decreased when the main audio plays. Moreover, as the instructor who wants to deliver the material to the 7th-grade students, the intonation should be more fun so that it can engage students through the conversation in the animation video. The overall media quality was similar to standard learning media. Thus, it can be implemented in the class.

Subsequently, the content expert was presented. The content expert involved one English teacher who works as an English teacher with more than three years of experience. The media expert and the content expert both provided the same evaluation. The teacher thought that the animation video-based learning material aligned with the learning goals. Then, the learning time did not take a long time in the learning process. Thus, it supported the efficiency of learning time. Then, the suitability of learning was in accordance with the current condition and the needs of the students. Broadly, on the Likert scale, this media is rated good. Hence, the video material could be used in the class. Overall, the video created by the researcher was well accepted by the experts in terms of media and content material.

4. Implementing

The developed animation video-based material was implemented at school. After the teacher explained the topic of descriptive text, the video was played. Following that, students watched an animation video to understand more about the subject matter they would be studying. The video included a discussion about hobbies, a material presentation, some examples of "How to express and ask about someone's hobbies", and a speaking exercise. The students seemed to enjoy the video, which offered an engaging and visual example of how to ask and explain someone's hobbies in English. The next step was to speak in front of the class to describe their hobbies. After all of the activities were done, the responses toward

the implementation using animation video-based were gained by giving questionnaires to the students.

5. Evaluation

The results of the questionnaires showed that all students were very happy and enjoyed the lesson because they liked watching the video. The data can be seen in the table below:

Table 3. Results of Students' Perception

Students' Perception						
No	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Mean
1	Audio can be heard very clearly.	25	4	2		3.74
2	The video display is very interesting.	27	4			3.87
3	The text or captions on the video can be read clearly.	23	8			3.74
4	The music in the video does not interfere with the content of the material presented.	11	10	6	4	2.90
5	The connection between videos, images and animations makes it easier for me to understand the material and concepts being studied.	20	7	4		3.51
6	The exercises given in the video can evaluate my understanding of the material presented.	25	4	2		3.74
7	In my opinion, the learning videos used by teachers in teaching English make it easier for me to understand the material being presented.	22	3	6		3.51
8	In my opinion, the learning videos shown by the teacher are related to everyday situations so that I can understand the English material easily.	25	6			3.80

9	In my opinion, the learning videos used by English teachers can help me learn how to use sentences in English.	23	5	2	1	3.61
10	In my opinion, the learning videos used by English teachers can help me learn how to use expressions in English.	18	6	5	2	3.29
11	In my opinion, the learning videos used by the English teacher increase my active learning in class.	20	7	4		3.51
12	In my opinion, the use of animation video for learning English can increase my motivation to learn.	20	8	3		3.54
13	In my opinion, the use of animation video for learning English makes me enthusiastic about learning.	24	5	2		3.70
14	In my opinion, when the teacher use video in the English learning process, students pay more attention to the lesson.	24	5	2		3.70
15	I believe that when the teacher uses English learning video I can hear English sentences and pronounce those sentences.	20	9	2		3.58
16	I believe that after learning using the animation video used by English teacher, I want to learn English even more.	20	8	3		3.54
17	In my opinion, through the learning video used by English teacher, I can learn how to pronounce English sentences correctly.	24	7			3.77

A quick look at the questionnaire results presented in Table 3 clarifies that most of the questionnaire item mean scores were greater than 3.00 and the overall mean is 3.59 which suggests that students have a positive perception of the use of animation video-based learning material. One of the items which item number 4, only got a 2.90 mean score, means that some of the students showed disagreement about the statement. Moreover, among the 17 items, items #2, 8, and 17 received the highest mean scores. Through these items, the students agreed that the use of animation video for learning English (a) is very interesting, (b) related to everyday situations that made them understand the English material easily, and (c) made them learn how to pronounce English sentences correctly.

Now that the overall perception of the students towards using animation video-based learning material was found to be positive, it is good to see if this degree of positive perception reached statistical significance or not. The results of this investigation are presented in the one-sample t-test table (Table 4) below:

Table 4. Result of the One-Sample T-Test

		Statistic	df	p	Mean difference	95% Confidence Interval	
						Lower	Upper
Students' Perceptions	Student's t	10.7	16.0	< .001	0.591	0.474	0.709

Note: $H_0: \mu \neq 3$

Table 4 shows that the overall mean score for the whole questionnaire items was significantly greater than the average value of the choices ($p < 0.05$), insinuating that the students had positive perceptions about the use of animation video-based learning material. In conclusion, the use of video in teaching English is very useful in delivering the materials. Besides making students enthusiastic about learning, it also makes the teacher easier in explaining the material.

Discussion

The main purpose of the present study is to develop animation video-based material by combining ZEPETO and Canva applications with the use of the ADDIE model. Through the evaluation stage, it also aims to examine students' perceptions toward the use of animation video-based material. Additionally, some experts validated the video before it was implemented in the class. According to both experts, the content already met the requirements to be taught in class and was rated in good quality. However, the background remained very complicated for the junior high school students, and the music remained to be quite loud until it covered the speaker's audio.

After some refinement, the animation video-based material was implemented in the classroom with the descriptive text material. The students were then given a questionnaire to complete in order to share their perceptions about the animation video they had previously viewed. According to the questionnaire's results, students have a positive perception of the animation video-based material. It is shown that after some refinement, the students stated that the animation video was very interesting for them. Although some students still have a problem with the music that does not interfere with the content of the material, the audio of the speaker still can be heard very clearly. In addition, the students agreed that the use of animated video for learning English is related to real-world situations that helped them

comprehend the subject matter easier, learn how to pronounce English sentences correctly, assess their comprehension of the lesson, and become more engaged in the material.

Students' perceptions of the animation video-based material were used as the evaluation, and the results were positive and consistent with some previous research. According to Marini et al. (2023), employing animated videos as a learning resource can enhance students' comprehension of the topic given. The correlation between video, pictures, and animations helps students understand the material and topics they are studying, as evidenced by item number 5 on the questionnaire. Another study by Sari & Nurcahyo (2018) demonstrated that adopting mobile learning is thought to be appropriate and can boost students' enthusiasm to learn. This is in line with this study that showed from the students' perception on items #12, 13, 14, and 16, that the animation video-based learning material can significantly increase their motivation to learn and make them enthusiasts to pay more attention to the lesson which can make them want to learn English even more.

Furthermore, items #9, 10, 11, 15, and 17 show a positive result towards the students' listening and speaking abilities that can improve after learning with the animation video-based learning material. These positive outcomes suggest that by combining ZEPETO and Canva for animation video-based material, developed through the systematic ADDIE model, not only aligns with previous research findings but also demonstrates its potential to significantly enhance students' understanding, motivation, and language skills.

Conclusion

This research was focused on the development of animation video-based learning material by using ZEPETO and Canva applications through Research and Development research using the ADDIE model. The results of this study showed that the animation video-based learning material was conducted based on the teacher's interview which focused on the descriptive text. The animation video-based learning material was evaluated by experts as being of good quality prior to being used in the classroom, despite some problems with background complexity and loud music. After refinement, the material was implemented in a classroom setting, and student perceptions were gathered through a questionnaire in the evaluation stage. The results indicated students had a positive perception of the animation video-based material. The majority of students found the video interesting so it can make them enthusiastic about learning the material, significantly increase their motivation to learn and enhance their language skills.

The results suggest that the teacher ought to be creative in adopting mobile learning by developing the material in several ways, such as the combination of two applications. This may require a significant amount of time, but the interactive design can boost student engagement. In addition, additional studies may be done to determine whether animation video-based material can improve students' English language proficiency through field testing.

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Contact email: sandhifattahul@webmail.umm.ac.id

***A Case Study on Duolingo Application in
Vocabulary Learning Strategies Among EFL Students***

Safhira Auralia Rahman, Universitas Pendidikan Indonesia, Indonesia

Ika Lestari Damayanti, Universitas Pendidikan Indonesia, Indonesia

Sri Setyarini, Universitas Pendidikan Indonesia, Indonesia

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Vocabulary is an essential part of language proficiency because it provides the framework for how well students are able to speak, listen, read, and write. Language learners no longer have to rely just on classroom instruction; they can now learn independently due to a variety of applications. Thus, language-learning application called as Duolingo offers a variety of English-learning activities for students. Therefore, this study is conducted to analyze further about the students' vocabulary learning strategies and their experiences with the use of the Duolingo application. The data were collected using a selective sampling technique. After being collected, the data were analyzed by using thematic content analysis to identify the patterns of themes in an interview. The results showed the advantages such as increase students' motivation, improve English skills, easily accessible, and many more. There are also disadvantages experienced by students in learning English vocabulary through the application such as less of reading and speaking material and advertisements. Students who engage in independent online learning are more likely to utilize a variety of online resources that encourage and accelerate vocabulary development. The strategies that students used to learn from the application are note taking, practicing and use supporting applications. The results indicate that the Duolingo application includes experiences that contributed to advantages and drawbacks, as well as students' individual strategies for improving their learning vocabulary by using the Duolingo application.

Keywords: Duolingo Application, EFL Students, Strategies, Vocabulary Learning

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Introduction

Language learners nowadays will not only depend on classroom instructions, but they can also do independent learning because there are many applications available. There are numerous applications available for expanding vocabulary for independent learning, one of them is Duolingo. Duolingo is a free, science-based language-learning platform founded in 2011 by Luis von Ahn and Severin Hacker (Robertson, 2011). Duolingo is a popular language-learning platform that offers a range of features to support independent learning. Statistics from the Duolingo website from 2021 showed that there are over 9.6 million daily active users and more than 500 million registered users, with 37 million active users per month. Duolingo offers 38 languages and user levels ranging from beginner to advanced.

English vocabulary is important for English learners to listen, speak, read, and write. It is a way to connect the four language abilities of listening, speaking, reading, and writing. According to Richards and Renandya (2002), vocabulary is a crucial component of language proficiency because it provides a foundation for how students listen, speak, read, and write well. Moreover, Tunchalearnpanih (2012) stated that students perform better in their language when they have a larger vocabulary. Since there are no specialized subjects about vocabulary taught in universities, students probably forget their vocabulary because they have fewer opportunities to learn vocabulary. As a result, they tend to have a limited vocabulary. According to Ergün Öcel, Gizem (2023), it has been discovered that students studying English as a Foreign Language (EFL) in university are unable to express themselves appropriately in either speaking or writing. It is highly advisable to highlight at a certain point that vocabulary is the foundation of any language.

However, improving fluency in vocabulary is not easy. The teacher must use an effective strategy that can motivate students to expand their vocabulary. According to Larsen and Freeman (2002), if a teacher wants their students to be able to utilize the target language in conversation, they must have a proper teaching strategy, media, and teaching method. The concept of learning in this era has been linked to the quick growth of technology. As technology develops, it is more used in teaching and has a significant impact on education (Jaelani, 2020). Many English teachers create teaching methods utilizing technology and media that are popular in this era, such as the Duolingo application, because Duolingo is one of the media that can be used to learn vocabulary. This is done in an effort to heighten students' interest in learning vocabulary.

Many factors that influence vocabulary learning include linguistic features of vocabulary, mother tongue and second/foreign language interference, the origin of vocabulary development, memory's ability to define, hold, and then recollect acquired or learned vocabulary, and advancement of the second/foreign language mental lexicon and its organization, vocabulary insight, personal characteristics, instructor and teaching strategies, and presentation of vocabulary (Takac, 2008). Students' learning strategies also have an impact on vocabulary acquisition. The usage of vocabulary learning strategies is one key component that impacts the effectiveness of foreign vocabulary acquisition (Yunhao, 2011). Nowadays, learning vocabulary can be done in many ways. In this modern era, students can enhance their vocabulary through various applications, using digital technology for language learning. Students' reactions to using new technology are positive, and they consider technology as a suitably combined and well-designed avenue for learning (Yang & Chen, 2007; Jones & Shao, 2011). Regarding that, Duolingo is one of the applications that can be used to learn vocabulary. The students have a positive perception of the use of Duolingo in

the aspect of usability, context, control, connectivity, mobility, blending, content, technical support, and cost (Pramesti & Susanti, 2020). It is important to discover the students' experiences in using Duolingo as the media to learn vocabulary.

Many students use Duolingo as an addition to their learning in the classroom. Duolingo has an aspect of gamification that is trending and relevant for today's learners. Duolingo courses also contain longer-form, discourse-level material in the form of interactive story activities, which allow students to practice their listening and reading abilities. These exercises explain how language is organized below the sentence level and emphasize more interactive and social features of the intended language. All sorts of lessons provide numerous possibilities for practice and repeated exposure that focus on structures of language. However, investigations into the usefulness of such studies for foreign language learning has been limited, especially with regard to large-scale commercial foreign language learning programs such as Duolingo. Although one authorized research study revealed positive language learning outcomes (Vesselinov & Grego, 2012), little independent research on student experiences, motivation, and program efficacy has been conducted (Lord, 2015; Nielson, 2011). In conclusion, knowing how to communicate in English is crucial, especially when communicating with foreigners. In reality, a lot of university students still have difficulty understanding new words. The acquisition of English vocabulary is crucial for international students since they will determine whether the learning process is effective, it is crucial to pay attention to the independent learning of the students in terms of their strategies for acquiring vocabulary using the Duolingo application. Based on the previously mentioned, this study is currently carried out to more thoroughly investigate vocabulary learning strategies and students' experiences utilizing the Duolingo application.

Literature Review

Vocabulary Learning Strategies

Strategy is a word with several definitions, all of which are significant and beneficial to those charged with developing corporate, economic, or organizational strategy. A strategy is a set of ideas or decisions taken to assist organizations in achieving their goals (Miller & Dess, 1996). To acquire a lot of vocabulary, the students need to have a proper strategy. Yunhao (2011) suggested seven vocabulary learning techniques such as dictionary use, guessing, perceptions, encoding, activation, management, and sources.

Vocabulary learning strategies can be defined in many ways. Cohen (2014) described language learning strategies as thoughts and behavior, actively chosen and operationalized by language students to support them in carrying out a multiplicity of tasks from the very beginning of learning to the most advanced levels of target language performance. Moreover, Hurd and Lewis (2008) defined the focus on vocabulary learning strategies are identifying the word form, meaning, and usage in many contexts. Students utilize learning strategies to increase the effectiveness, autonomy, and enjoyment of their language study. According to Wen Qiufang (2003), the goal of using strategies, according to the definition, is to increase the effectiveness of learning; strategies are student behaviors or actions, not thoughts. In this context, vocabulary learning strategies can be described as "behaviors or actions that students use to increase the effectiveness of vocabulary learning."

In terms of behaviorism strategies, the lecturer can reinforce desired behavior and quickly remediate negative behaviors through the use of stimulus, response, and reinforcement.

According to Xuelian (2018) students must periodically review their vocabulary if they want to remember it. The advantage, in summary, is that the process is relatively simple. Furthermore, Hatch and Brown (2000) explained five steps to learning new words: encountering the word, identifying the word form, identifying its meaning, associating the word form to its meaning, and using it.

From the description above, it can be inferred to the features of Duolingo that allows us to practice so many learning strategies. In the Duolingo application, there are some features that can be encountered by the students. The stage level on Duolingo helped students to learn the language from Indonesian to English and English to Indonesian.

Duolingo Application

According to the 2016 guidebook Duolingo for School, the most popular online language learning tool is a simple tool called Duolingo. Students can learn English using a variety of activities on the language-learning application Duolingo, including translation, matching, dictation, fill-in-the-blank, speaking, listening, multiple choice, and competition. It is totally free and employs science and adaptive learning methods to make learning languages more enjoyable and successful.

Duolingo is a self-described completely free, science-based language learning platform founded in 2011 by Luis von Ahn and Severin Hacker (Robertson, 2011). Duolingo also includes instructors from whom users are able to exchange fewer lesson ideas and experiences, such as teachers or students, to make them more accessible in learning so it can measure students' achievement and dedication in flawless methods. It displays information such as the number of points earned, the overview tree, the streak, and the amount of time spent.

The lessons introduce students to vocabulary and grammar in sentences in the intended language, allowing them to progressively determine linguistic regularities through repeated exposure to and interaction with meaningful material. Moreover, detailed feedback and explanations supplement more implicitly, comprehension-based learning in Duolingo lessons. Explicit explanations can provide an alternative to more efficient learning for some topics. This is particularly relevant for the language's intended traits that may be challenging to discover based just on input (DeKeyser, 2003; Ellis, 2015).

Duolingo supports its effectiveness as its main selling point (a claim supported by founder Luis von Ahn and Duolingo's promotional video). Although von Ahn currently stated that Duolingo operates most effectively as a supplement to in-person formal instruction, Duolingo's website continues to make strong arguments about its effectiveness (and even superiority) as a stand-alone language learning experience (Duolingo, n.d.). Duolingo is a really simple, free, and basic educational mobile application with motivational DGBL (Digital Game-Based Learning] features that provide enough of an attractive aspect to maintain many learners engaged. The Common European Framework of Reference (CEFR), an international standard for language proficiency (Council of Europe, 2001), is employed to guide Duolingo lessons.

Method

Research Design

This study used a qualitative case study. According to Creswell (2012), qualitative research is an approach of examining and understanding the significance that individuals or groups attach to a social or human context. This research process included creating a procedure, gathering data in the participants' environment, analyzing the data, moving from specifics to broad themes, and producing interpretations of the data's meaning. The final written report was written in a flexible manner. It aims to describe the experiences of Duolingo application users in learning vocabulary.

Moreover, Putra (2012) stated that the researcher serves as the main tool in qualitative research since it is an inductive method of identifying the research problems. In order to fully understand the issue, qualitative researchers must engage with the participants or subjects. Because qualitative research is dynamic, the researcher must pay attention to any interactions or conversations that arise during an interview.

Based on the statement above, the researcher analyzed the data based on the interview with the Duolingo application users about the strategies and experiences in using Duolingo to learn vocabulary. This research used a qualitative method, which entailed gathering data to answer the research questions formulated in the problem statement.

Data Collection and Participants

The researcher used an interview to collect the data. In addition, the semi-structured interview is used to create a discussion in order to dig more information from the participants. The information collected through the interview about the strategies and experiences in using Duolingo to learn vocabulary by Duolingo application users were the types of data required in this study.

The participants of this study were five university students that chosen based on their independent learning to learn vocabulary by using Duolingo. They are already using Duolingo independently or voluntarily because it is part of their independent learning. The selective sampling technique is used by the researcher to collect the data. Marguerite (2006) defined a selective sampling method as a common technique used in qualitative research that identifies key informants or individuals with specific knowledge of the subject that is studied.

Data Analysis

This study's data will be analyzed using qualitative data analysis. All data will be classified and analyzed in accordance with the research questions. This research including data analysis and interpretation by using Miles & Huberman's (2014) model; data collection, data reduction, data display, and drawing conclusions. The Miles & Huberman (2014) model is a systematic approach to qualitative data analysis that consists of four major stages: data gathering, data reduction, data display, and making conclusions. In this strategy, researchers collect relevant data using a variety of methods before condensing and organizing it to show patterns and themes. Researchers then illustrate the data to make it easier to analyze and generate insights. Finally, researchers make conclusions from the synthesis findings, providing insights and implications for theory, practice, and future research. According to the

statement above, qualitative research is a current finding, which means that the findings are still ambiguous or confusing. Here, the researcher tries to make it clear by utilizing a successful theory, and then the researcher analyzes the new findings to make them clear by using data analysis components.

Findings

In this study, the data showed the advantages and disadvantages experienced by students in learning vocabulary through Duolingo and students' strategies through the use of the Duolingo application in vocabulary learning.

1. Students' Experiences

Students experience some benefits and drawbacks while they are learning vocabulary in terms of their independent learning. The benefits are helpful for some students in vocabulary learning, and the drawbacks may have little impact on certain students' ability to learn vocabulary. Some students said that their motivation in learning English vocabulary is increased because of Duolingo. Students use the Duolingo application to increase their motivation in learning vocabulary. Before learning English vocabulary, students must be motivated and actively engage in the language. The student was able to communicate effectively in this way. They were more motivated to improve their performance if they misunderstood an exercise. Thus, students must continually expand their vocabulary. They became aware of the fact that they still lacked vocabulary and needed to learn it intensively as a result.

"Duolingo application is very easy to access and we can download the application and it is very easy, also we can monitor our learning progress, so we know our progress."

To learn English vocabulary more successfully, the application that students use must have an easy way to access it. The easy access could be beneficial for some students who learn English vocabulary by mobile phone, they admit that it is really helpful because it is compact and easy to access. Due to the widespread popularity of the Duolingo mobile application, some students feel a greater need to learn and use it. As a result, they are more likely to be motivated to acquire knowledge with Duolingo. Moreover, learning English vocabulary through the Duolingo application can improve their English skills. As stated by the students,

"Duolingo helps me to improve some skills, especially my speaking skill and pronunciation, and also I gain some new vocabularies, or some vocabularies that I may forget from Duolingo."

"Duolingo helps me to improve my speaking and pronunciation because there are some sections that allow us to speak and they will correct it, and I think it is really cool because they know if we just pronounce word incorrectly, like even just a little mistake, they will know and tell us it is incorrect, so it helps me a lot in speaking and to improved my pronunciation as well, not only memorization."

Some students acknowledge that their English skills such as listening, speaking, reading, and writing are improved by doing some tasks in Duolingo. They are felt to be more able to speak in English than before. Also, some students feel they have more sensitive ears in terms of

listening skills. Duolingo application serves as a story feature that allows us to practice English skills through conversation. This can help students to engage more vocabulary in terms of speaking to other people. Some students felt they enjoyed having a conversation because of Duolingo.

“I developed a new English learning habit after using the Duolingo application, for example when I have learned the Duolingo application, I can speak English with new words, and also I can understand what others said, and I can easily understand the conversations.”

The independent learning of the students creates new learning habits for some students. They have made some positive habits in terms of maximizing their vocabulary learning by using Duolingo. Some students do more practice and also learn new vocabulary almost every day. Duolingo application is the application to learn languages that are more interesting and serve a variety of characters. The character on Duolingo attempts to give more playful learning to make the user feel more engaged and increase their motivation in learning vocabulary. As the students said they felt the character on Duolingo was fun and varied.

“I feel like it is good for me because I like the characters of Duolingo, there are a lot of characters on the Duolingo application and it is quite fun for me.”

“The features of the application vary and it is also helpful for the beginner who wants to learn English or another language from the basic.”

The unique features of Duolingo help students acquire vocabulary more quickly. On Duolingo, there are plenty of features, such as level chapters on the journey, corrections to review our learning, stories with conversation, listening and speaking skills, and more. Some students believed that the range of features truly supported their learning of vocabulary. The materials on Duolingo are helpful for students in improving vocabulary learning. Some students said they felt the material on Duolingo is suitable for their level and increased their vocabulary knowledge.

Despite of the benefits in using Duolingo for learning English vocabulary, there are some drawbacks that students experienced. Therefore, the drawbacks do not reduce the use of Duolingo in their independent learning. Duolingo provides speaking material on a stage level that students can pass with their pronunciation. There are also corrector pronunciation features on Duolingo that are really helpful for students. However, some students need to improve their speaking skills through conversation and more about speaking skill material. The stage level on Duolingo asks students to complete or pass all of the levels before going to the next level. Duolingo is equal to all language proficiency levels, starting from the beginning to advanced. That is why some students feel this really hinders them from learning with their proficiency level, they have to repeat from the beginning, and makes them feel bored.

“Sometimes I think I have enough on this level, I need to jump on the higher level but I cannot skip the levels, so I hope I can skip the level.”

The material on Duolingo that serves new vocabulary words might be beneficial for students, but there are also some words that are repeated. The repetition of the words makes students

feel they are not enlarging the vocabulary words and feel it is the same as the previous stage or level that they are already encountered.

“Duolingo application often repeats the words that they have shown us in the previous level, and then they showed us again in the next level.”

“I feel like I am not too focused on the question and the material that I found on my smartphone because of the advertisement.”

The advertisement on the Duolingo application makes some students feel bothered because they cannot learn vocabulary peacefully. Also, students have to pause their learning because they need to watch a few seconds of the advertisement for a while before skipping the advertisement. They need to upgrade their account to a premium Duolingo if they want to be free from the advertisement. The internet connection is the main aspect of running online independent learning, which is Duolingo. It is used for connecting students to the material of vocabulary. There are some students who had some difficulty in internet connection caused by several aspects. Because Duolingo cannot run while offline, some students felt it was a disadvantage because they cannot learn vocabulary more while they have no internet connection.

2. Students' Strategies

There are some strategies that are used by the students through the use of the Duolingo application for vocabulary learning. The students found several ways to overcome the new vocabulary. Note-taking is the most used strategy in learning vocabulary, and also to maximize the vocabulary learning by Duolingo.

“When I get new vocabulary, I usually note the words and also find the synonym that I can found. So, when I find another sentence or topic, I can get the meaning also the synonym of the words, so it is easier for me when I have to note and also know the synonym of the words.”

Some students need to take their notes after receiving new vocabulary words and make some sentences to enlarge their understanding. It was very useful and improved their vocabulary because while taking a note, they also memorized the vocabulary and remembered the use of the vocabulary in the sentences. The strategies of practicing students' vocabulary are very helpful for some students who practice their vocabulary through communication, practice, and being consistent. Building the language's vocabulary is an important component of language learning, and one of the main points that will assure that students are successful in this area is consistency. Learning new words and phrases is essential for acquiring fluency in a foreign language, and constancy in practice helps in this process of learning. This will allow students to strengthen their memory and gain confidence in utilizing these words.

The use of context is an essential approach for helping students improve their vocabulary. This means using the clues or suggestions offered in the text that surround an unfamiliar phrase to help students guess the meaning without reading a dictionary. Utilizing context to guess the meaning of new words also means utilizing a dictionary less. Words, phrases, or sentences that appear before, after, or close to the term are included in terms of the use of the context. Many students find it challenging to use context. This method takes time to learn, but students will benefit from detailed instruction and guided practice.

For remembering the material that students have learned in previous studies, they need to do a review of the material after the learning process. This method can be done by writing in a note or studying new sentences. Students like to review all the vocabulary that they got from previous activities and then read it based on its vocabulary context, so they can test themselves to know how far they can understand based on her vocabulary size. Students need to memorize their vocabulary in order to keep their learning and memorize some words that they have learned. There are many ways to memorize vocabulary, such as repeating a word, writing in a note, or studying sentences.

“I also learned from another website called “Future Learn”, but I think the Duolingo application is like the first thing I look for when I need to learn something.”

Students who engage in online independent learning are more likely to use a variety of online resources to help them learn language more efficiently and simply. They might be able to increase their vocabulary and level by using these strategies. Some students claimed that in order to make the greatest use of Duolingo, they also needed a second accompanying application to provide the language they were learning more significance. Combining or making a connection between words is an effective method in learning vocabulary because the vocabulary that students use is linked to each other and it makes them memorize a large amount of vocabulary. Some students stated they liked to learn English vocabulary by combining or connecting words that related to each other. If they found the word and looked up the definition, they would link it to another word with the same or similar definition with that word.

Discussions

Based on the description above, it can be seen that the advantages and disadvantages in learning vocabulary through the Duolingo application come from many factors. The advantages that come by using Duolingo applications are increasing motivation, ease to access, popular applications, improving English skills, practice conversation, new learning habits, variety of characters, variety of features, and serving good material. The students have a positive perception of the use of Duolingo as same as the aspect of usability, context, control, connectivity, mobility, blending, content, technical support, and cost (Pramesti & Susanti, 2020). Due to the variety of characters and features, students stated that Duolingo has greatly inspired them to learn English. It is also supported by other studies from Boudadi and Gutiérrez-Colón (2020) a wide range of studies has shown that gamification in education increases student interest, decreases anxiety, improves motivation, and improves learning performance. This keeps the learning process interesting and fun. This study is in line with (Ahmed et. al., 2022) that gamification enhances effective and efficient learning by utilizing game components and game-based thinking. As a result, it has become useful for teaching and studying topics that students find “boring”. Because Duolingo is a learning platform that only requires a mobile phone to be on hand, it makes it more ease and convenient for users to acquire vocabulary in every situation. Due to its popularity and accessibility, Duolingo has an excellent track record among students. The learning method also teaches students new study habits and enhances their English proficiency; some students report feeling more at ease and enjoying learning vocabulary and speaking in English with other students. These findings are also in line with Jones and Shao (2011) as they stated, that learners’ reactions to using new technology are positive, and they consider technology as a suitably combined and well-designed avenue for learning.

Although using Duolingo has several advantages, there are disadvantages to consider as well. Less reading material, less speaking material, lack of features to pass the level, repetition of the words, internet connection, and advertisement are some of the disadvantages that students have expressed when using the Duolingo application. Even though there are numerous benefits to learning new words, certain students have specific requirements that must be met. Because some students find the stage level is too low or high for them, the lesson material on Duolingo also has to be adaptable for students' proficiency levels. Additionally, the repetition of the words at the stage level needs to be decreased for the variety of new vocabulary terms. Additionally, some students find that learning vocabulary in offline mode is more stimulating since there is less distraction and application advertisement, which is Duolingo has yet to provide an offline mode for vocabulary learning.

On the other hand, students have their own methods for maximizing the effectiveness of the Duolingo application for learning vocabulary, including taking notes, looking at the context, being consistent, reviewing previous work, combining words, and using supplementary applications. The strategies to learn vocabulary also in line with vocabulary learning strategies based on Ming Wei's (2007), her classification of strategies: guessing the meaning, perceptions, encoding, activation, management, and sources. After learning new words in Duolingo, students prefer to add notes and build a sentence in order to assist them in understanding the vocabulary better. A study on Hurd and Lewis (2008) that focuses on identifying the word form, meaning, and usage in many contexts it connected with this study because of students' using the word in many contexts to understand the language better. Additionally, if they are unsure of a word's definition, they prefer to consider its context, draw connections from the sentences, and combine words in as many ways as they are capable. They use applications to enhance their vocabulary acquisition in addition to Duolingo exercises, such as the u-dictionary, the Indonesian-English dictionary, and the IELTS collocation. Furthermore, students must be consistent in their vocabulary learning if they want to memorize it effectively. This consistency also helps students use their language in everyday conversations and build confidence. Moreover, students also do a review on their past work to keep on their minds about the vocabulary that they are encountered in their independent learning using the Duolingo application. It is also in line with the study of Xuelian (2018) that students must periodically review their vocabulary if they want to remember it. As a result, students perform better in their vocabulary learning because of reviewing the vocabulary periodically.

Conclusion

Based on the findings and discussion that are explained, the experiences of the students in using Duolingo come from the advantages and disadvantages of the application, such as easy to access, popularity, improving English skills, practicing conversation, new learning habits, variety of character and features, good material, and corrector pronunciation. For the disadvantages are lack of features to pass the level, repetition of the words, distraction, internet connection, and advertisement. Also, some students felt the devices that they used were not supported well in learning vocabulary. Sometimes, students also had difficulties with the speaker because of lack of exposure, different accents, and the speaker's pronunciation. Moreover, there are some errors in their devices and the applications that used to learn vocabulary. It made them need to repeat their task to learn vocabulary.

The student has strategies for maximizing the use of the Duolingo application in learning vocabulary. The research found that using note-taking was the best method for students to

learn vocabulary. Although utilizing the Duolingo application proved challenging, it also helped students in their vocabulary learning. Additionally, the student prefers to add more strategies to have a better experience in learning vocabulary. To improve their vocabulary level, some students also do note taking, have consistent learning habits, look at the context of the text, review the past work, guessing the meaning, combining words, incidental memorization, and use supporting applications.

Overall, the findings indicate that, while Duolingo provides excellent opportunities for vocabulary learning, there is an opportunity for improvement in usability, functionality, and pedagogical support. By addressing these issues, educators and developers can improve the effectiveness and accessibility of language learning tools, allowing students to achieve their language learning objectives more efficiently and effectively.

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Contact email: safhiraauralia@upi.edu

The Decline of Inherited Property and Rise of Working Gentlemen in Bleak House

Akiko Takei, Chukyo University, Japan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Attitudes toward gentility significantly changed during the lifetime of Charles Dickens (1812–70), leading to a redefinition of the term gentleman. Dickens keenly observed the social dynamics of the Victorian period, and his works reflected the evolving perceptions of class, morality, and social responsibility. This study analyzes Dickens's descriptions of key changes in the definition of a gentleman in his novel *Bleak House* (1852–53), focusing on the backgrounds of Mr. Jarndyce, Sir Leicester Dedlock, Mr. Rouncewell, Richard Carstone, and Allan Woodcourt. The analysis examines the changes in social mobility and industrialization, professionalism, and meritocracy as well as the emphasis on character and morality, philanthropy, and social responsibility. Findings revealed that the definition of a gentleman considerably changed during Dickens's lifetime. The sudden end of the Jarndyce and Jarndyce lawsuit implies the decline in hereditary property and rise of self-made gentlemen. The contrasts between those with inherited property and the self-made gentlemen in *Bleak House* reflect the broader societal shifts toward equal opportunity, moral character, and social responsibility. Challenges to the traditional criteria for gentility led to a more inclusive and dynamic understanding of the concept in Victorian England. The various types of gentlemen portrayed in *Bleak House* reflect and contribute to the evolving notions of what it meant to be a gentleman during this period.

Keywords: Dickens, Class, Estate, Inheritance, Law, Social Mobility

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Introduction

This study focuses on Charles Dickens's description of key changes in the definition of a gentleman in his novel *Bleak House* (1852–53). The analysis explores changes in social mobility and industrialization, professionalism, and meritocracy as well as the emphasis on character and morality, philanthropy, and social responsibility. Dickens keenly observed the social dynamics, and his works reflected the evolving perceptions of class, morality, and social responsibility during his lifetime. The gentlemen portrayed in *Bleak House* contributed to the changing perspectives regarding what it meant to be a gentleman during this period.

Qualifications for Becoming Gentlemen

The definition of gentlemen has a long history. As early as 1577, an English clergyman William Harrison (1534–93) divided the English people into four classes: gentlemen, citizens, yeomen, and laborers. He further classified gentlemen into four ranks as follows: aristocrats, lords or noblemen, knights and esquires, gentlemen (ch.1, 39). He believed that knights aimed to motivate people to show bravery in battles or praise their military merits after the battles ceased. Citizens, yeomen, and laborers had limited opportunities to become gentlemen.

By these discourses exemplified by Harrison, the basic definition of gentlemen as those of noble birth who did not engage in manual labor was formed. The following passages by Harrison persuasively explain the qualifications required for gentlemen:

Whosoever studieth the laws of the realm, whoso abideth in the university (giving his mind to his book), or professeth physic and the liberal sciences, or beside his service in the room of a captain in the wars, or good counsel given at home, whereby his commonwealth is benefited, can live without manual labour, and thereto is able and will bear the port, charge, and countenance of a gentleman, he shall for money have a coat and arms bestowed upon him by heralds (who in the charter of the same do of custom pretend antiquity and service, and many gay things), and thereunto, being made so good cheap, be called master (which is the title that men give to esquires and gentlemen), and reputed for a gentleman ever after, which is so much less to be disallowed of for that the prince doth lose nothing by it, the gentleman being so much subject to taxes and public payments as is the yeoman or husbandman, which he likewise doth bear the gladlier for the saving of his reputation. Being called also to the wars (for with the government of the commonwealth he meddeth little), whatsoever it costs him, he will both array and arm himself accordingly and shew the more manly courage and all the tokens of the person which he representeth. No man hath hurt by it but himself, who peradventure will go in wider buskins than his legs will bear, or, as our proverb saith, “now and then bear a bigger sail than his boat is able to sustain.” (ch.1, 45)

Thus, the qualifications required for gentlemen were outlined as follows: university education, learning of the liberal arts, no engagement in manual labor, dedication to the welfare of the nation and the public, respect for honor, and bravery.

According to Harrison's classifications, merchants or traders were ranked below gentlemen as citizens. Nevertheless, gentlemen and wealthy merchants were mutually dependent in Harrison's time. He lamented this trend:

In this place also are our merchants to be installed as amongst the citizens (although they often change estate with gentlemen, as gentlemen do with them, by a mutual conversion of the one into the other), whose number is so increased in these our days that their only maintenance is the cause of the exceeding prices of foreign wares, which otherwise, when every nation was permitted to bring in her own commodities, were far better, cheaper, and more plentifully to be had. Of the want of our commodities here at home, by their great transportation of them into other countries, I speak not, sith the matter will easily betray itself. Certes among the Lacedæmonians it was found out that great numbers of merchants were nothing to the furtherance of the state of the commonwealth: wherefore it is to be wished that the huge heap of them were somewhat restrained, as also of our lawyers, so should the rest live more easily upon their own, and few honest chapmen be brought to decay by breaking of the bankrupt. (ch.1, 47)

Harrison was displeased with the gentlemen who sold their estates to merchants. He noted that merchants did nothing useful for public welfare; they had to remain in their class and caused shortages of goods due to exports and increased living costs. Harrison deemed merchants greedy and believed that their greed spoiled the noble gentlemen. His view was undoubtedly based on prejudice but showed the gentlemen's dual attitude toward merchants: they needed and despised the merchants' wealth.

The concept of gentlemen, exemplified by Harrison, was passed down from generation to generation, gradually adapted to the sociocultural climate. Robin Gilmour argues that the following professions were considered gentlemanlike at the beginning of the Industrial Revolution: army officers, Anglican Church clergymen, London physicians, those educated at Oxford or Cambridge, and retired tradesmen who purchased landed estates. These professions were virtually excluded from the rank of gentlemen: surgeons, attorneys, Dissenting clergymen, first-generation factory owners, and engineers (7). Gilmour observes that, "it [this classification] had its own logic, ensuring the prestige of those occupations which reinforced the stability of a social hierarchy based on the ownership of land" (7). Clergymen, officers, and physicians did not always own landed estates; however, they were included among gentlemen.

Greed and Obsession With Inherited Property

Based on these changes in the definition of gentlemen, the argument continues to analyze *Bleak House*. The novel begins with the scene in Chancery Court, where the Jarndyce and Jarndyce trial is in progress. The narrator repeatedly emphasizes the distress caused by endlessly delayed trials and blames the incompetent judges and solicitors. They work as little as possible, leave complicated main suits unsettled, and engage in minor separate charges. Nevertheless, they cannot solve less complicated legal problems. Their lack of motivation is evident from their slow speech and unsuppressed yawns. Chapter 19 states that the chief judge works two days a week, and the court is closed for over five months, that is, almost half a year. On their limited working days, the law officials repeat pointless arguments and document examinations. It is not surprising then that the Jarndyce and Jarndyce case is prolonged.

In addition to the incompetence and poor management in the judicial system, suitors' greed and obsession with inherited property and solicitors' greed are repeatedly described. Chapter 1 hints at how both plaintiffs and defendants shamelessly resort to cheating and trickery and

reveals that hatred and hostilities are bequeathed to the offspring rather than the property they desire to possess. As mentioned previously, respect for inherited property was deeply ingrained in the Victorian mindset. Inherited property represented family history, lineage, and status that could not be replaced by cash or stock. The Jarndyces are frantically involved in the suit because they are obsessed with respectability and money.

The Jarndyces face tragedies of their own accord by exchanging their goodwill for greed. However, as the plot unfolds, readers find that the Jarndyce solicitors take advantage of their clients' greed and make money even after the suit is cancelled. Vholes is a good example to elucidate this point. His business is humble compared with those of Tulkinghorn and Kenge. Therefore, Vholes attempts to prolong the suit and secure his client, Richard Carstone, who is desperate for money. Not only Vholes but all Chancery officials and solicitors do not want the suit to end because as long as it is ongoing, they can earn money with minimal work. Kieran Dolin states, "In *Bleak House* Chancery barely acts at all; instead it is presented as feeding off the estate, as concerned only with the self-maintenance of the suit and the profits to the legal officers" (84). The unsettled Jarndyce suit is not solely due to the inadequacy of the legal system; greedy law officials who actively take advantage of suitors' greed and obsession are the ringleaders of the Jarndyce and Jarndyce because they are aware about how to use laws and proceed with trials.

Mr. Jarndyce's Desperate Escape From the Curse of the Jarndyce and Jarndyce

The discussion examines the main characters' responses to inherited property. Mr. Jarndyce, one of the Jarndyce and Jarndyce beneficiaries, maintains that the lawsuit is a family curse and strongly hates unscrupulous lawyers.

"The lawyers have twisted it into such a state of bedevilment that the original merits of the case have long disappeared from the face of the earth. It's about a will and the trusts under a will—or it was, once. It's about nothing but Costs, now. We are always appearing, and disappearing, and swearing, and interrogating, and filing, and cross-filing, and arguing, and sealing, and motioning, and referring, and reporting, and revolving about the Lord Chancellor and all his satellites, and equitably waltzing ourselves off to dusty death, about Costs. That's the great question. All the rest, by some extraordinary means, has melted away." (ch.8, 116)

Jarndyce's narrative shows that he has been suffering deeply from the prolonged lawsuit. He is pressured to escape his family curse and use his fortune for good purposes. He dislikes being thanked because he does not seek for his own interests at all. He remains unmarried possibly because he does not want to pass the family curse on to his offspring. Dolin points out the lack of reality in Jarndyce's actions: "While there is a fount of generosity in the family, while the distribution of wealth extends to whoever comes under notice, the problem of scarcity and competition does not exist, and the reality of conflict can be displaced into the category of unnatural" (93). However, Jarndyce's unconditional kindness and contribution to the betterment of his neighborhood are qualifications that British gentlemen honored. His desire to do something good is further intensified by his uncle's tragedy and forms his personality.

Troublesome Career Paths of Richard Carstone and Allan Woodcourt

Mr. Jarndyce's kindness and care extend to the young people under his guardianship: Esther, Richard, and Ada. From his family tragedies, he learns that the court and law officials are incompetent and, therefore, prevents his wards from getting involved in the lawsuit. He decides that Richard needs to seek employment and earn a living rather than wait for the prospective inheritance. Richard is naïve and confident but not particularly ambitious. Without interest in a specific profession, he attempts any available career—medicine, law, and the military—only to quit it. His deep involvement in the Jarndyce and Jarndyce, heavy debt, and premature death show that he has fallen prey to greed, a trait of the Jarndyce family.

Mr. Jarndyce empathizes with Richard because he understands that Richard's lack of firmness and patience is partly fostered by his family's obsession with the Jarndyce and Jarndyce: "It [Chancery] has engendered or confirmed in him a habit of putting off—and trusting to this, that, and the other chance, without knowing what chance—and dismissing everything as unsettled, uncertain, and confused" (ch.13, 201). However, people outside the Jarndyce family circle are critical of Richard's inabilities. For instance, Mrs. Badger comments bitterly on Richard, who is working as an apprentice under her husband, Mr. Badger:

"He [Richard] is of such a very easy disposition, that probably he would never think it worth-while to mention how he really feels; but he feels languid about the profession [surgeon]. He has not that positive interest in it which makes it his vocation. If he has any decided impression in reference to it, I should say it was that it is a tiresome pursuit. Now, this is not promising. Young men, like Mr Allan Woodcourt, who take it from a strong interest in all that it can do, will find some reward in it through a great deal of work for a very little money, and through years of considerable endurance and disappointment. But I am quite convinced that this would never be the case with Mr Carstone." (ch.17, 279)

Mrs. Badger's remarks indicate that Richard lacks the motivation needed to acquire medical knowledge and skills; thus, training him is burdensome. Although Esther is not fond of Mrs. Badger, she lectures him mildly. Richard's response confirms the accuracy of Mrs. Badger's and Esther's beliefs: "After all, it may be only a kind of probation till our suit is—I forgot though. I am not to mention the suit" (ch.17, 281). Despite Mr. Jarndyce's guidance, Richard expects to inherit the Jarndyce property. For this reason, he is frustrated with any profession that he chooses.

Richard's failure to pursue his career predicts future degradation and ruin. Chris Louttit points out that Dickens's presentation of characters is largely defined by their jobs (14). Richard's incompatibility with any profession reflects his dependence and vulnerability. In addition, he apparently longs for leisured gentlemen. Gilmour states that in Victorian society, there was an uneasy fascination for dandies and a useless man who made his incompetence and disdain for work the icon of refinement (7). This remark shows that Richard is obsessed with the wealth and luxuries that the Jarndyce and Jarndyce can bring him: "We only say that if it *should* make us rich, we have no constitutional objection to being rich" (ch.14, 223-24). Unlike Mr. Jarndyce, Richard does not internalize the necessity of restraining greed for money or supporting people in need. Richard's understanding of gentlemen is rather superficial.

Meanwhile, Allan Woodcourt is a surgeon and possesses all the qualifications that Richard lacks; he tirelessly treats the poor. Esther observes: “It was not lucrative to a young practitioner, with very little influence in London; and although he was, night and day, at the service of numbers of poor people, and did wonders of gentleness and skill for them, he gained very little by it in money” (ch.17, 289). Woodcourt’s low income is due to disparities in the medical profession. As mentioned previously, surgeons were not regarded as gentlemanlike (Gilmour 7) because they originally belonged to the field of barbers. Wealthy patients preferred physicians to surgeons (Carpenter 26); as Esther notes, scrupulous surgeons would have not made money. Loutitt notes that Woodcourt is merely hardworking, exciting neither readers nor Dickens (4). However, Woodcourt’s simple honesty formed by his profession was a virtue that Dickens highly regarded.

By the nineteenth century, the medical industry had become highly competitive due to an increase in the number of medical professionals (Carpenter 12). It is challenging for Woodcourt to succeed in competitive London; thus, he decides to visit China and India as a ship doctor. It appears that he intends to restart his career in less competitive colonies, but as the cases of Dickens’s sons demonstrated, not everyone succeeded in colonies (Takei 91-92). Woodcourt eventually takes up the post of a doctor at a hospital for the poor, accepting Jarndyce’s offer. In addition, when he marries Esther, Jarndyce presents the newly married couple with the New Bleak House. Dolin notes that Jarndyce’s gifts are meant to be dowry (93). Jarndyce treats Esther and Woodcourt as adopted children, and they are likely to inherit the original Bleak House. Woodcourt’s history shows that it was difficult to succeed in any profession through skill and hard work alone and that influential gentlemen were supportive patrons.

Mr. Rouncewell and Sir Leicester Dedlock: Self-Made Gentlemen and Aristocrats

In Chapter 65, Jarndyce and Jarndyce abruptly ends with fits of laughter from the assembled clerks and young solicitors. Their laughter represents the bitterness and criticism that middle-class workers without pedigree or property had against the affluent. For those trapped in the Jarndyce and Jarndyce, time has stopped and nothing has changed. However, outside Chancery, those with skills and talent could rise in the world by setting up their own businesses, although they were born with “dirt spoons.” Gilmour says, “The greatly increased mobility of nineteenth-century society posed problems of adjustment for the established gentleman – what occupations could he pursue without injuring his gentility? – but for the enterprising self-made man, it offered tantalizing rewards, among them, if he was to believe Samuel Smiles, the goal of becoming a gentleman” (99). *Bleak House* was published seven years before Smiles’s masterpiece *Self-Help* (1859). However, successful self-made men in Dickens share much with Smiles’s beliefs.

Mr. Rouncewell is a man whom Smiles would have held in high esteem. In Chapter 2 of *Self-Help* entitled, Leaders of Industry—Inventors and Producers, Smiles says, “Many ingenious minds are found laboring in the throes of invention, until at length the master mind, the strong practical man, steps forward, and straightway delivers them of their idea, applies the principle successfully, and the thing is done” (18). Rouncewell is the eldest son of the housekeeper at Sir Leicester Dedlock’s house. From childhood, he enjoys creating steam-powered machines and demonstrates scientific talent. Declining to become a butler for Sir Leicester Dedlock, he succeeds in the iron manufacturing industry. His life and career embody self-help, which Smiles advocated:

“I have been,” proceeds the visitor [Rouncewell], in a modest, clear way, “an apprentice, and a workman. I have lived on workman's wages, years and years, and beyond a certain point have had to educate myself. My wife was a foreman's daughter, and plainly brought up. We have three daughters besides this son of whom I have spoken, and being fortunately able to give them greater advantages than we have had ourselves, we have educated them well, very well. It has been one of our great cares and pleasures to make them worthy of any station.” (ch.28, 477)

Rouncewell is one of the first-generation factory owners who were not originally deemed gentlemen. With his success, his children grow up in a far more sophisticated environment than his parents and are considered fine gentlemen and ladies. Thus, the middle class is revitalized.

Rouncewell's social rise is also evidenced by his entry into politics. Andrew Sanders notes that Rouncewell represents central figures in political arguments after the 1832 Reform Bill, which enabled residents in northern industrial cities, such as Manchester and Leeds, to send their representatives to Parliament (xxxiii). His victory over Sir Leicester Dedlock's party signals the motivation and liveliness peculiar to the new class, eager to keep pace with those of a higher social standing.

Sir Leicester Dedlock is displeased with Rouncewell, as the man whom he regards as his inferior now overwhelms him. His reactions to Rouncewell are similar to Harrison's disdain for merchants. He associates James Watt (1736–1819), whom Rouncewell deeply respects, with Watt Tyler (1341–81), and considers that Rouncewell is likewise a rebel. Dolin points out the fear for democracy in Sir Leicester Dedlock's actions (91) such as dislike for any type of change.

Sir Leicester Dedlock's resistance to something new is further caricatured by the denial of the improvement and progress commonly shared by his society. Chapter 12 describes their pettiness and ignorance.

There *are*, at Chesney Wold this January week, some ladies and gentlemen of the newest fashion, who have set up a dandyism—in Religion, for instance. Who, in mere lackadaisical want of an emotion, have agreed upon a little dandy talk about the Vulgar wanting faith in things in general; meaning, in the things that have been tried and found wanting, as though a low fellow should unaccountably lose faith in a bad shilling after finding it out! Who would make the Vulgar very picturesque and faithful by putting back the hands upon the Clock of Time and cancelling a few hundred years of history. (ch.12, 193)

Although attired in the latest fashion, the mindset of Sir Leicester Dedlock's society is the same as that of those who lived two centuries ago. They consider themselves entitled to possess privileges and want to leave those of lower social standing as they are.

Sir Leicester Dedlock's obstinate refusal to appreciate change is described negatively throughout *Bleak House*. However, he is better than his followers. Except for Mr. Rouncewell, Sir Leicester Dedlock is affectionate toward his circle, regardless of their family background and social standing. He sincerely loves Lady Dedlock, who does not come from a noble family, and is always kind toward Mrs. Rouncewell. Moreover, after a paralytic attack, he welcomes George Rouncewell into his home and relies on his nursing skills. This indicates

a reconciliation among Sir Leicester Dedlock and the Rouncewells: aristocrats, tradesmen, and servants. For this point, Gilmour says that, “the Victorian bourgeoisie was a revolutionary class: that its emergence did not result in a revolution, or that the revolution took a gradual rather than violent form, was due in large part to the fact that it was able to find a *modus vivendi* with the aristocratic ruling class. What has come to be called the Victorian Compromise had for one of its central features the gradual supersession of one kind of social structure by another” (8). Sir Leicester Dedlock does not live much longer, and his family property Chesney Wold gets inherited by distant relatives. However, mingling with different classes, peace and order in Sir Leicester Dedlock’s home are somehow restored.

Conclusion

At the end of *Bleak House*, the Jarndyce and Jarndyce property is wasted and gone. The estates of Mr. Jarndyce and Sir Leicester Dedlock are expected to be passed on to outsiders or collateral relatives. This suggests that the value of an inherited property is maintained, but poor legal systems should be improved, complicated inheritance must be resolved, and greed should be restrained. In addition, in Dickens’s world, those who make a fortune on their own without relying on their family background and property are deemed better than those who contend with inherited property alone. The contrasts between those with inherited property and the self-made gentlemen in *Bleak House* reflect the broader societal shifts toward valuing equal opportunity, moral character, and social responsibility. Challenges to traditional criteria for gentility led to a more inclusive and dynamic understanding of the concept in Victorian England. The gentlemen portrayed in *Bleak House* reflect and contribute to the evolving notions of what it meant to be a gentleman during this period.

Funding

This work was supported by JSPS KAKENHI Grant Number JP124K03738.

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Redefining Reality: Art Education and Student Sensibilities at the Digital Inflection Point

William Hall, Kyoto Saga University of Arts, Japan
Yoko Iwasaki, Kyoto Saga Art College, Japan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The concept of ‘reality’ within art and design is inherently dynamic, subject to the influences of varying cultures and times, along with philosophical and technological developments. Recent advancements in virtual reality (VR) and artificial intelligence (AI)-generated art have propelled us into new, uncharted creative territory, challenging existing theoretical frameworks within the art world and presenting many unaddressed questions and uncertainties. Art education is at a pivotal moment, grappling with the integration of such technologies, the training needs of faculty, shifting modes of exhibiting work, and ethical considerations such as ‘ownership’, ‘authenticity’, and ‘originality.’ Parallel to these issues is the shifting perception of the very nature of ‘reality’ among digital-native art students, who increasingly embrace digital experiences, a transformation further accelerated by the rapid increase in digitalisation due to the COVID-19 pandemic. This ongoing collaborative research aims to map out the changing sensitivities to ‘reality’ among art university students, addressing the widening gap between what institutions offer and what students need, and presenting possible frameworks for future developments in art education. Through analysis of survey data on the evolving concept of ‘reality’ and its connection to digital experiences, it explores the integration of technological innovations and the future of artistic careers in an increasingly digital age, offering insights into developing curricula that align with evolving artistic and educational landscapes.

Keywords: Art, Education, Reality, Digital, Technology, IT, STEAM

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Introduction

Currently, over 90% of students at our college, a private art university in Japan, belong to Generation Z (Gen Z), a demographic characterized by their extensive use of the internet and social media. In art universities, the digital influence on traditional art production techniques is becoming increasingly prominent (Asare et al., 2023). Historically, art was considered an ‘imitation of reality.’ However, since the Renaissance, this notion has evolved, with artists being recognised as intellectual creators engaged in the elevated task of producing reality itself (Grau, 2007). The distinction between reality and fiction is intricately connected not only to the artist’s skill but also to the technological advances of the time. The development of these technologies has significantly reshaped people’s sensibilities, with perceptions of reality and fiction evolving alongside technological advancements.

Gen Z perceives the digital world as one of multiple realities. They skillfully navigate both physical and digital realms as the context requires, without assigning absolute hierarchies to either (Tolstikova et al., 2020). This perspective provides a backdrop to our current paper, which builds on previous research into the changing sensitivities to ‘reality’ among art university students (Hall & Iwasaki, 2024). The concept of ‘reality’ within art and design is inherently dynamic, influenced by varying cultures, times, philosophical shifts, and technological developments. Recent advancements in virtual reality (VR) and artificial intelligence (AI)-generated art have introduced new, uncharted creative territories, challenging existing theoretical frameworks and presenting numerous unaddressed questions and uncertainties.

Art education is at a critical juncture, contending with the integration of these technologies, the evolving training needs of faculty, shifting modes of exhibiting work, and ethical considerations such as ownership, authenticity, and originality. Concurrently, there is a shifting perception of ‘reality’ among digital-native art students, who increasingly embrace digital experiences; a transformation accelerated by the COVID-19 pandemic.

This study aims to address the widening gap between institutional offerings and student needs in terms of creative digital technology and propose frameworks for future developments in art education. Through an analysis of survey data on the evolving concept of ‘reality’ and its interplay with digital experiences, along with students’ prior exposure to, interaction with, and attitudes towards digital media, this paper explores the integration of technological innovations and the future of artistic careers in an increasingly digital age. It aims to provide insights into developing curricula that align with these evolving artistic and educational landscapes.

Background

From STEM to STEAM

Within education, the term ‘STEM’ (Science, Technology, Engineering, and Mathematics) was coined in the early 2000s and has been the focus of many educational systems around the world (Tytler, 2020). One of the key advantages of a STEM oriented education system is its ability to foster critical thinking and problem-solving abilities in students, which are crucial for success in a wide range of professional fields. It promotes creative and independent thought, enabling students to understand and utilise complex concepts and ideas effectively.

In recent years, however, the term STEAM has emerged, incorporating an 'A' for the Arts into the traditional STEM framework. This addition recognises that STEM subjects alone overlook several crucial elements that employers, educators, and students consider essential for success in an increasingly complex and interconnected world which requires a diverse skill-set. The key to this approach is integrating subjects rather than learning them in isolation. As a result, education moves from teaching isolated disciplines through simple reductionism. Instead, by combining STEM with the Arts, forming the STEAM model, both creativity and rational thinking can be cultivated. This model emphasises the development of sustainable futures, rather than relying on short-term financial projections that can result in socio-economic instability (Boy, 2013). The approach is especially relevant to art universities, as creative technologies continue to develop and the range of potential career paths for art university graduates increasingly overlap with engineering and scientific fields. Thus, STEAM subjects become more relevant for careers involving creative technology, programming, internet use, robotics, and data analysis.

In recent years, the Japanese government has also recognised the benefit of an integrated STEAM approach not only within universities but also in high schools and junior high schools. Two notable government initiatives are the 'Kyoto STEAM - International Arts and Science Festival'¹ which features future-oriented and innovative projects at the intersection of art, science, and technology, and the 'Moonshot Research and Development Program' from the Japan Science and Technology Agency², which consists of ambitious interdisciplinary research and development projects aiming to solve some of society's more difficult issues by 2050. These kinds of endeavors, which integrate both creativity and technology, are precisely the type of project we hope our students will pursue. However, it is important to critically evaluate whether we are doing enough to support them in this challenge. We propose that there is a compelling need to reconceptualise and restructure art education in Japan to better meet the needs of our students today.

Methods

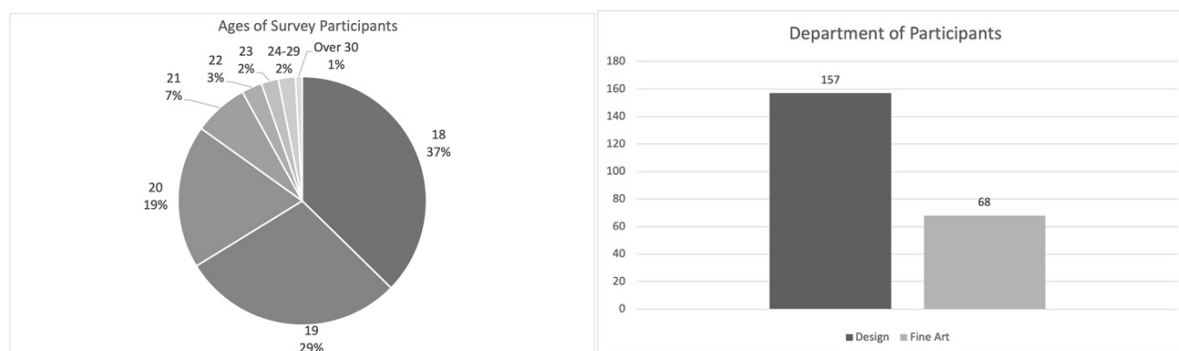
A comprehensive survey (n 225) was conducted among our students, the objectives of which were (1) to explore the possible disconnect between traditional art education methods and the digital competencies required today and (2) to help inform new educational frameworks that integrate digital tools, catering to the evolving needs of students and the creative industries they will enter. The survey focused on students from Kyoto Saga University of Arts and Kyoto Saga Art College and was divided into three main sections. The first section assessed the use of information technology (IT) in various areas of students' daily lives, including entertainment, study, and creative purposes. The second section aimed to gauge students' prior exposure to IT subjects before entering university. The final section sought to map out students' attitudes towards IT subjects by inquiring about their interest in, perceived benefits of, and demand for more IT education within their current university curriculum. For the purposes of this survey, IT subjects were defined by giving examples which included computer programming and coding, internet use and web development, robotics, and data analysis.

¹ Kyoto steam-international arts × science festival. (n.d.). <https://kyoto-steam.com/en/>

² Moonshot Research and Development Program. Cabinet Office Home Page. (n.d.). <https://www8.cao.go.jp/cstp/english/moonshot/top.html>

Demographics of Survey Participants

Most participants were aged between 18 and 20 (85%), with smaller percentages between ages 21 and 23 (14%), and over 30 (1%). In terms of departmental distribution, 157 participants (approximately 70%) were from the Design department, while 68 participants (roughly 30%) were from the Fine Art department. While this higher representation from younger students and a significant majority from the Design department may have had an influence on the pattern of results, the demographic distribution is typical of small art universities in Japan today.



Figures 1 & 2: Ages and departments of participants.

Results

Usage of Digital Tools

To obtain a general understanding of students' interactions with tools associated with IT topics, participants were asked about the frequency of use in various aspects of their daily lives: for entertainment, for studying, and for art production purposes. The 'entertainment' category included examples such as smartphones, tablets, streaming services, and gaming devices. In the 'studying' category, online tutorials, classes, and learning applications were suggested. The 'art production' category gave examples such as digital art and design software, as well as VR and AR technologies.

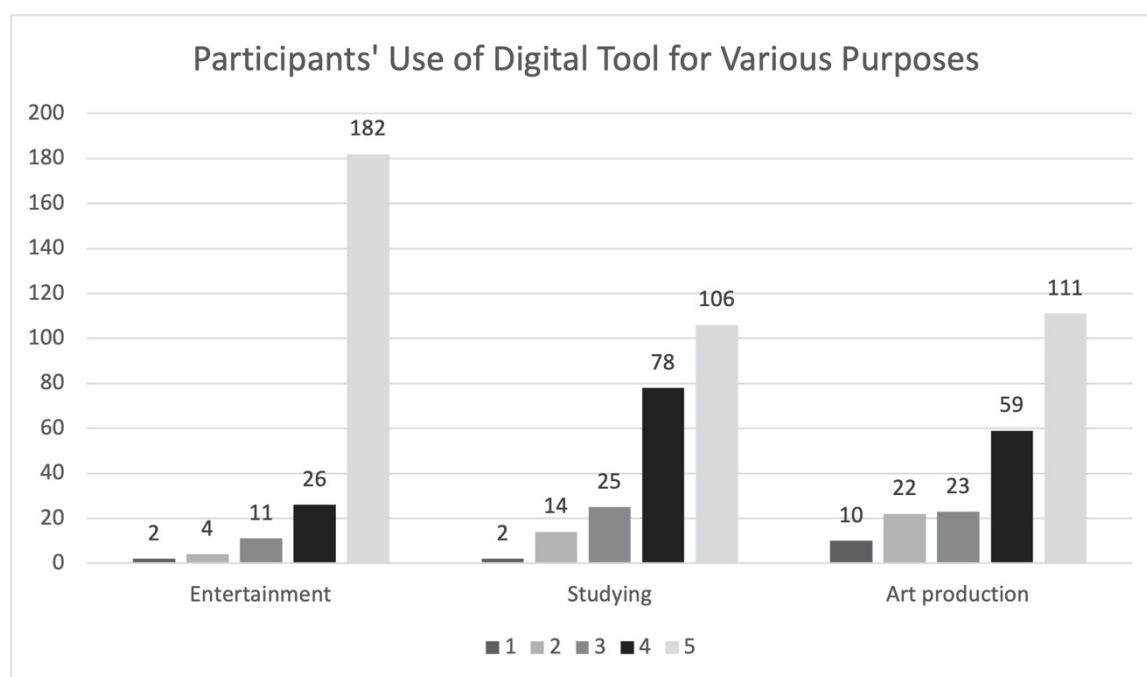


Figure 3: Participants ranked their usage on a scale from '1: never' to '5: extensively used' of digital tools for 'entertainment', 'studying', and 'art production.'

As anticipated, the results (Fig. 3) clearly show that digital tools are an integral part of students' lives, utilised widely for entertainment, educational, and creative purposes. The most common response across all categories was 'extensively used,' with minimal indications of moderate or less than moderate use. These findings align with the expectation that students today are deeply immersed in digital technology.

A follow-up question inquired about commonly used digital tools. Results reveal that digital photography and video tools, including those on smartphones, are the most frequently used, with 156 mentions, representing 69.3% of respondents. Digital art and design tools (such as Adobe Creative Suite and 3D modeling software) are the second most popular, with 153 mentions, accounting for 68% of respondents. Electronic music tools are also widely used, with 62 mentions (27.6% of respondents). Additionally, data processing software like Microsoft Excel is used by 27 respondents, making up 12% of the total. Other tools, including interactive media, AR/VR tools, and AI or machine learning tools, are used less frequently. The strong preference among this art university's students for digital art, photography, and music creation tools, coupled with notable but lesser usage of data processing software, suggests that they are primarily using new digital technologies for specific creative purposes rather than for business, or organisational tasks. In other words, their engagement with digital tools is closely aligned with the focus and requirements of their academic studies.

Perception of Digital Forms and Media

Perceived Value and Authenticity

Participants were then asked to evaluate their attitudes towards digital media in terms of its value and authenticity when compared to traditional or analogue media across three areas of their lives. For instance, in the 'entertainment' category, this involved valuing tablets or streaming services in comparison to books and magazines; in 'studying,' it entailed valuing

online tutorials in comparison to classroom environments; and in ‘art production,’ it included valuing digital art and design software in comparison to physical forms such as drawing or painting. The findings reveal that students hold an overwhelmingly positive attitude towards the value and authenticity of digital media in all categories, indicating a strong openness to the integration of more digital elements into these areas.

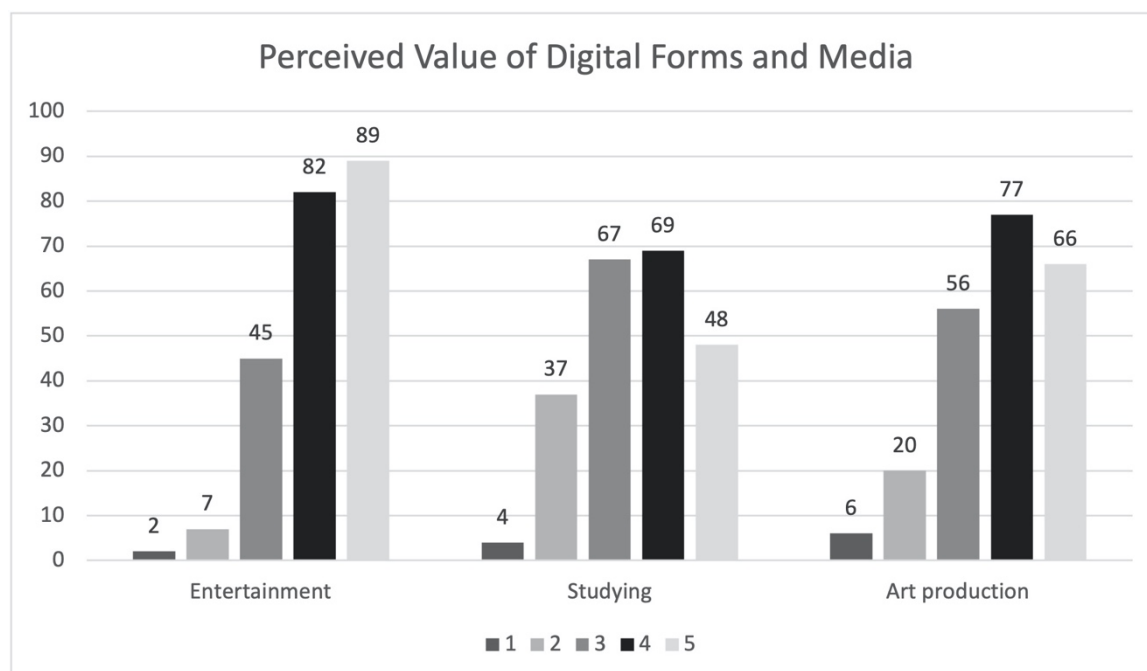


Figure 4: Participants were asked to rank their perceived value from ‘1: very low’ to ‘5: very high’ of digital forms and media for the purposes of ‘entertainment’, ‘studying’, and ‘art production.’

Perceived Sense of ‘Reality’

In our previous survey³ (Hall & Iwasaki, 2024), ‘reality’ was defined as the feeling of being alive, absorbed, or immersed, whether in the physical or digital world. This concept acknowledges that the spread of digital tools has blurred the lines between traditional daily life and virtual experiences. In this context, ‘reality’ encompasses the sense of engagement and presence we feel, regardless of whether we are interacting face-to-face, participating online, or engaging in digital entertainment. Conversely, experiences from which we do not feel a sense of reality refer to those we recognise as fictional or are viewed with feelings of detachment.

To gauge students’ perceived sense of reality of digital forms, participants were asked to make comparisons with their closest physical counterpart. For instance, within ‘entertainment,’ they were asked if they feel that digital entertainment is as ‘real’ as physical entertainment; within ‘studying,’ they were asked if they think education using digital tools can be as ‘real’ and effective as traditional education such as face-to-face classroom instruction and textbooks; and within ‘art production,’ they were asked if they think digital art creations have the same level of ‘reality’ as physical art creations. While this method does not provide a precise scientific measurement, it offers insights into the general sentiment and perceptions students have towards the reality of IT related media and topics.

³ See appendix

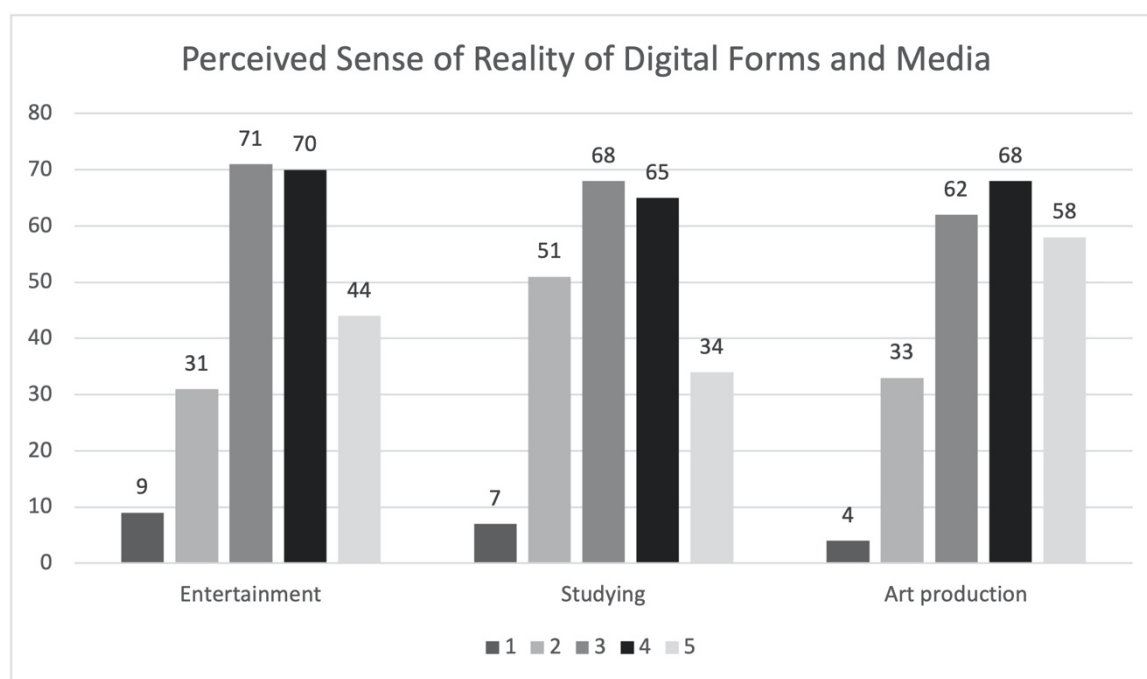


Figure 5: Participants were asked to rank their sense of reality from '1: very low' to '5: very high' of digital forms and media for the purposes of 'entertainment', 'studying', and 'art production'.

The results show that students generally have a positive attitude towards the sense of reality associated with digital forms and media across all categories. Few participants ranked their sense of reality as 'very low' in any category, with the majority indicating a 'high' or 'very high' sense of reality. Notably, within the 'art production' category, participants rated digital forms and media very favorably in comparison to their physical equivalents in terms of perceived sense of reality. These findings highlight the evolving nature of reality among digital natives and underscore the importance of understanding how digital experiences are integrated into art university students' lives and are perceived as authentic and valuable.

Prior Exposure to, Interest in, Perceived Benefits of, and Demand for IT Subjects

Next, students were surveyed about their prior exposure to IT subjects in high school, junior high school, or in any extracurricular activities or clubs before entering university. The results indicate that a relatively small proportion of art university students had significant pre-university exposure to IT education. Many students reported limited or no opportunities to engage with such subjects, highlighting a gap in the early integration of IT education, which contradicts the previously mentioned STEAM aspirations of recent government initiatives.

To gain a deeper understanding of students' attitudes towards IT subjects, they were asked to rank their interest in these subjects, assess the perceived benefits in terms of enhancing their skills and potential as art students or in their future careers, and express their desire for more IT-related content in their current art university curriculum. Despite the limited pre-university exposure, a substantial number of students expressed strong interest in IT education. There is a high level of perceived benefits associated with these subjects and a significant demand for more IT-related content in their art university education. Thus, while pre-university exposure to IT education is limited among art students, there is a clear and strong interest in, belief in the benefits of, and demand for more IT-related content in their education. This indicates a

crucial need to integrate IT into art education to better align with the interests and aspirations of students today.

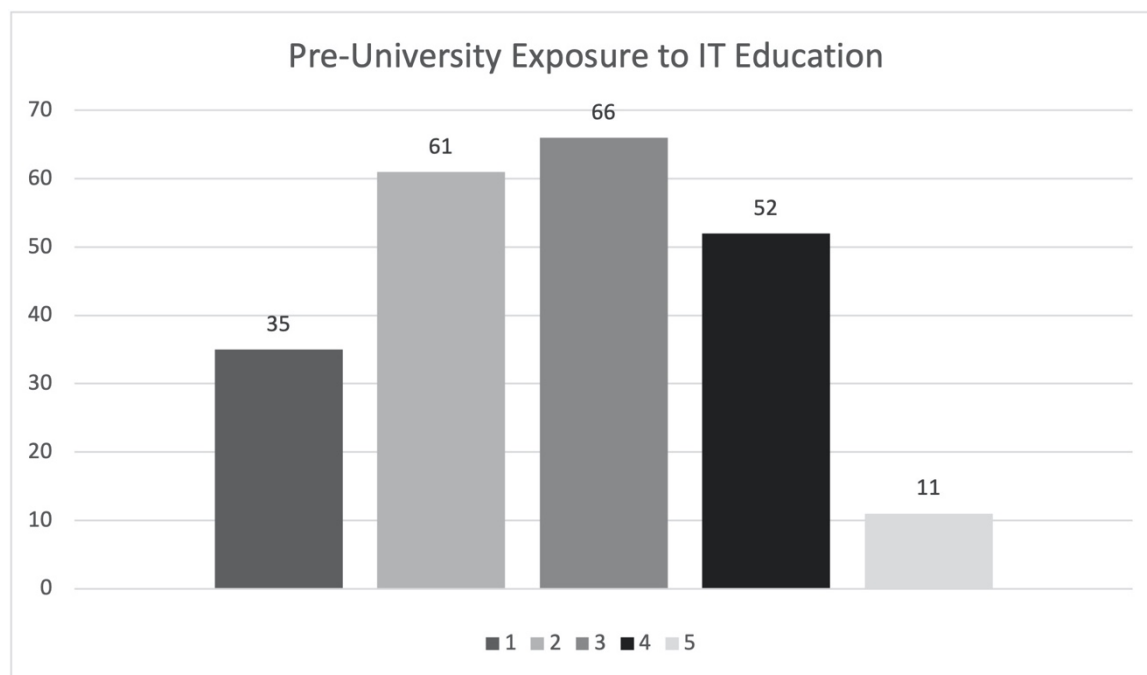


Figure 6: Participants were asked to rank their pre-university exposure to IT education (such as computer programming, code creation, internet usage, robotics, data analysis, etc.) from '1: very low' to '5: very high.'

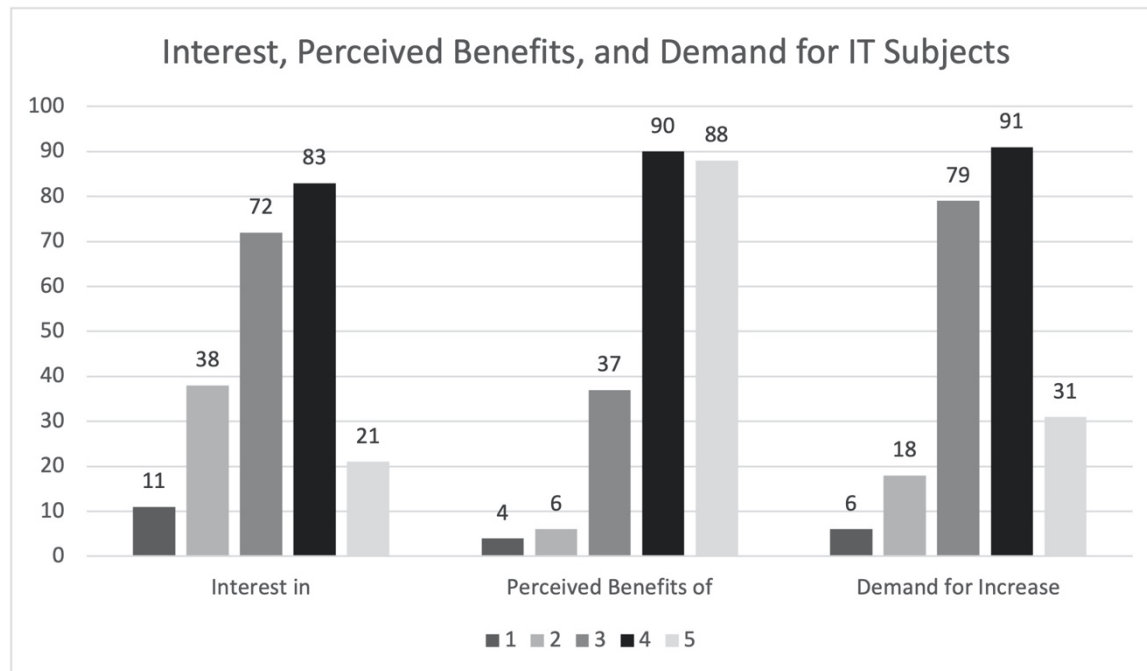


Figure 7: Participants were asked to rank their interest in, perceived benefits of, and demand for more IT education in the current art university curriculum from '1: very low' to '5: very high.'

Impact of Pre-university IT Education

Cross-analysis of the data reveals insights into the impact of prior exposure to IT education on art students' interest in IT subjects, their belief in the benefits of IT education, and their demand for more IT-related content in their current curriculum. The analysis grouped students based on their prior exposure to IT education, with lower exposure represented by the columns on the left of the charts and higher exposure on the right (Figs. 8, 9, & 10). These groups were then compared with participants' attitudes towards and perceptions of IT education.

Correlation With Interest in IT

Students with the highest pre-university exposure to IT subjects overwhelmingly show a strong interest in IT education, with the majority rating their interest as 'high' or 'very high' (Fig. 8). Those with moderate exposure also exhibit significant interest, though their responses are more varied, indicating more diverse levels of enthusiasm. Interestingly, even students with minimal or no prior exposure display a notable interest in IT education, with more than 80% of the lowest exposure group expressing moderate or higher levels of interest. This suggests that while prior exposure positively correlates with interest, there is a broad recognition among students of the value and importance of IT education, regardless of their background. This widespread interest highlights the potential for expanding IT education within the curriculum to meet students' apparent interest.

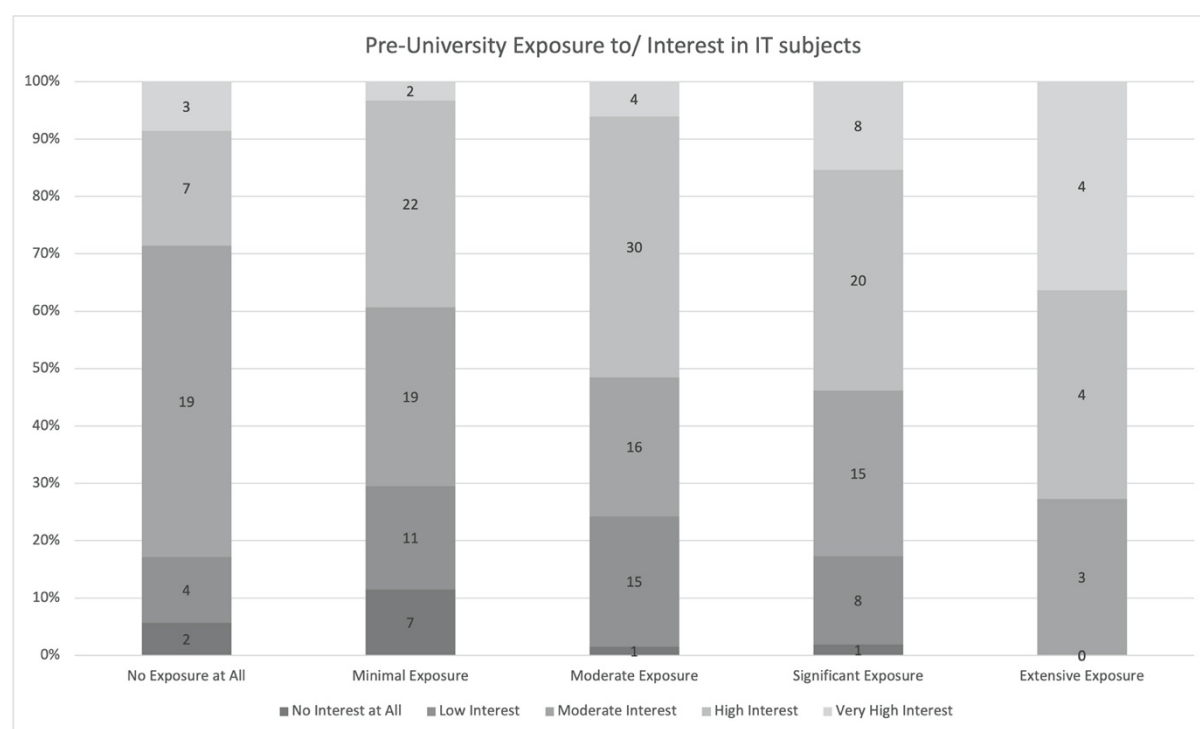


Figure 8: Impact of pre-university IT education exposure on art students' interest in IT subjects.

Correlation With Perceived Benefits of IT

There is a clear positive correlation between pre-university exposure to IT subjects and the perceived benefits of IT education among students (Fig. 9). As the level of exposure increases,

students' recognition of the benefits shifts markedly towards 'high' and 'very high'. Notably, students with significant or extensive exposure overwhelmingly rate the benefits as 'high' or 'very high', while those with minimal or no exposure display more varied perceptions, albeit with a substantial number still recognising moderate or higher benefits. Though the responses are more diversified at the lower exposure levels, there is a consensus on the importance of IT education among the art students surveyed and a clear link between exposure to, and perceived benefits of, IT education.

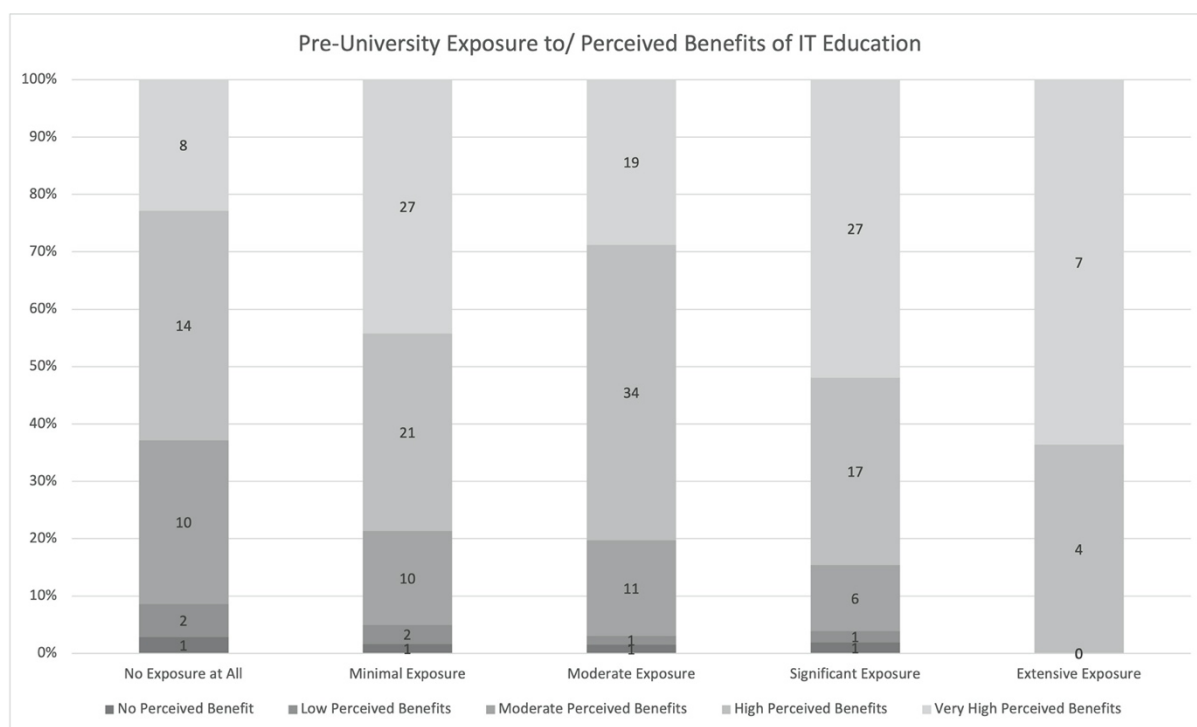


Figure 9: Impact of pre-university IT education exposure on art students' perceived benefits of IT education.

Correlation With Demand for IT Related Subjects

Fig. 10 also reveals a significant relationship between students' pre-university exposure to IT subjects and the demand for more IT related content in their university curriculum. Students with extensive prior exposure to IT overwhelmingly show 'moderate', 'high' or 'very high' demand for IT education, indicating a strong desire for its inclusion. Those with moderate exposure similarly express substantial demand, though with a more varied distribution. Even students with minimal or no prior exposure to IT subjects demonstrate a considerable demand, with a notable portion expressing 'moderate' to 'high' and 'very high' demand. This widespread demand highlights the importance of integrating IT education at earlier educational stages, in order to not only foster appreciation but also generate a robust desire for further IT learning opportunities. These findings suggest that enhancing pre-university IT exposure could play a crucial role in meeting student demand and better preparing them for future technological advancements in creative fields.

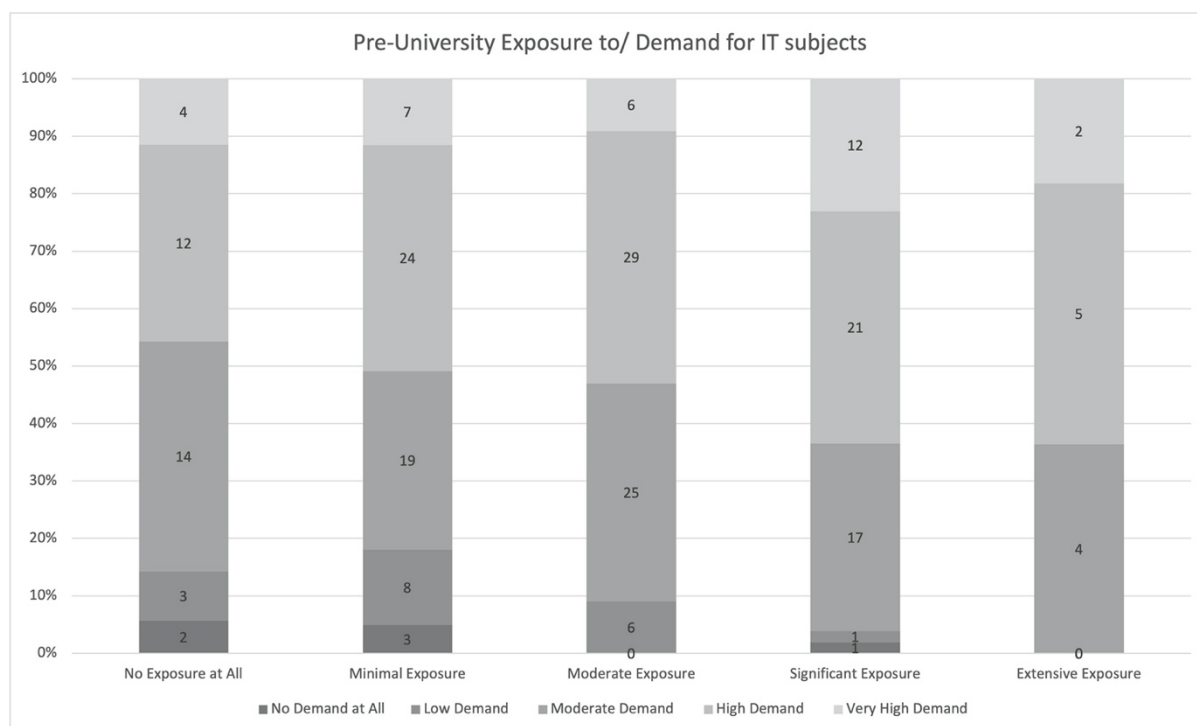


Figure 10: Impact of pre-university IT education exposure on art students' demand for IT subjects.

The results of the cross-analysis overwhelmingly show that prior exposure to IT education positively influences art students' interest in IT topics, their perception of the benefits of IT education, and their demand for more IT-related content in their current studies. Students with higher exposure to IT education are more likely to appreciate its value and express a stronger desire for its integration into their curriculum. These findings suggest that incorporating more IT education at various educational levels could yield positive outcomes for art students, fostering greater appreciation and engagement with the curriculum.

Discussion

Our survey reveals some interesting insights into how art students interact with digital technology and media. They are already using digital tools extensively in their daily lives, for entertainment, studying, and creating art, and they are open to integrating them more into their education. Even though many students lack significant exposure to IT education before university, there is apparently significant interest in incorporating more of it into the current curriculum. Art university students believe that IT skills can significantly boost their abilities and potential as artists and designers. Furthermore, a higher exposure to IT subjects at a young age seems to promote sustained interest throughout university and possibly beyond.

The findings suggest several considerations for the future of art education. Firstly, curriculum development requires immediate attention. A significant gap exists in IT education prior to university. While government initiatives may help to bridge this gap by offering new or supplementary opportunities to learn IT subjects in school, art universities must also enhance their offerings by incorporating more IT-related courses, such as programming, digital design, data analysis, and emerging technologies. These skills can complement traditional art training and foster creative thinking. Adopting a STEAM approach will better prepare students for a future where these skills are increasingly interconnected and important.

Enhanced learning experiences are another important aspect. According to the survey results, not only are the benefits of IT education clearly recognised by students, but interest in such subjects is overwhelmingly positive. Accordingly, incorporating such subjects, and interacting with digital tools and technologies, can make learning more interesting and ultimately effective. Online resources and digital art software can supplement classroom learning, making it more interactive and engaging. The non-physical aspect of digital media, which requires minimal materials and studio space, makes it very suitable for online teaching and collaborative activities, despite physical, geographical, or financial restrictions.

Career preparation is another factor to consider. As the creative and technology worlds merge, having IT skills will open up new career paths for art students. The practical experience of experimenting with emerging technologies imparts transferable skills and knowledge that can be readily adapted to future developments. Moreover, this hands-on engagement equips students with the essential creative, technical, and critical abilities necessary for starting a career in the continuously changing area of digital art and design. Preparing students for jobs that require both creativity and technical skills is an urgent responsibility of art universities today. Through encouraging student to take part in interdisciplinary projects or collaborations with the creative industry, they can gain hands-on experience, and appreciate the real-world applications of their skills.

However, it is also worth noting that the integration of new technology into art education comes with a range of challenges connected to technological issues, resource limitations, and concerns related to accessibility and inclusivity. Both educators and students may struggle with unfamiliarity when using new tools, underscoring the importance of initial training and gradual incorporation into the educational system. This can be a huge burden on already limited resources. An unfamiliarity with the media can also be intimidating for students and faculty alike. For this reason, the kind of technology and IT content to introduce should be selected and integrated with careful consideration.

Conclusion

Our preliminary survey highlights the important role of IT education in art schools today. Despite many students lacking significant IT exposure before entering university, they are eager to learn it now and recognise its value. Integrating more IT content into the curriculum is essential to meet their needs and prepare them for the continually evolving digital workplace.

As more STEAM-oriented government initiatives are announced, art universities need to align their education to meet such exciting and forward-thinking projects. Ensuring students are not just creative but also technologically skilled is a pressing duty of art universities today.

For these reasons, conducting comprehensive research into the state of digital art education in Japan is vital. While the aim of the research is to improve standards within Japanese art universities, it should also encompass pre-university education in high schools and junior high schools due to their interconnected nature. Furthermore, to develop a comprehensive model of digital education at Japanese art universities, there is a need for comparative investigation into art education at international institutions.

Appendix

Results of Previous Surveys of Students

Survey data on students' attitudes towards reality within art and other related media reveals several key changes influenced by digitalisation. Firstly, digital tools have expanded the scope of artistic expression, enabling artists to explore new forms that blend physical and digital worlds. Secondly, the perception of the digital realm has shifted; once viewed as a secondary or false reality, it is now embraced as an integral part of everyday life and artistic practice, often holding equal or greater significance than physical reality.

The survey results indicate that, for art students, films are perceived as the most immersive and realistic form of media. Conversely, opinions on games, comics, animation, and digital idols are divided, likely influenced by individual usage frequency. Non-digital experiences, such as viewing artworks in museums, are generally perceived as more realistic by a significant proportion of respondents. Notably, the experience of artworks in museums is overwhelmingly seen as more realistic compared to viewing artworks in digital spaces such as Instagram.

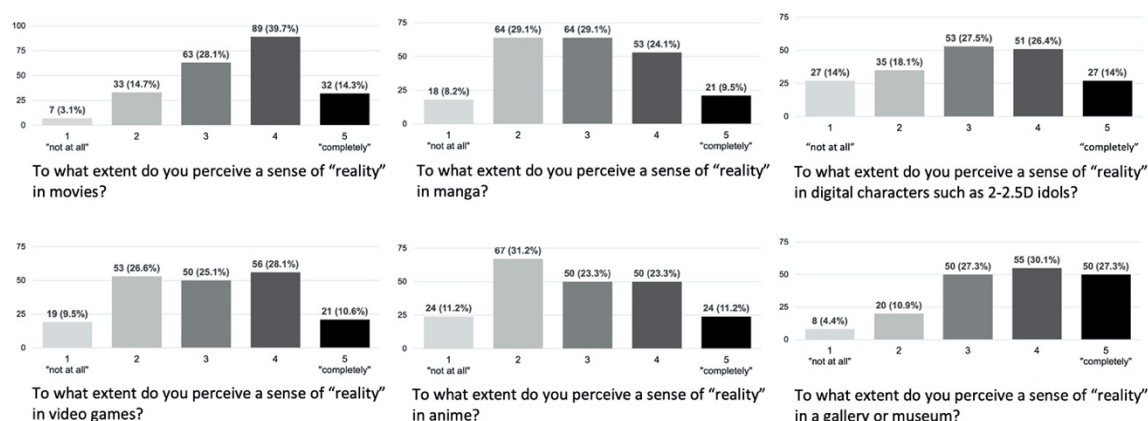


Figure 11: Previous survey data regarding student attitudes towards reality within art and related media.

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Implications of Chinese Medicine's Perspective on "Treating the Undiseased" for the Modern Living Environment

Shi Zong Lai, Weixin Shengjiao College, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The current condition of the environment is characterized by widespread pollution and damage, leading to escalating social, health, and economic conflicts for humanity. Environmental health is a fundamental principle in sustainable development, and the high occurrence of COVID-19 in 2021 serves as a reminder of the interconnections of human health, animal health, and environmental health, known as "One Health." The idea of "preventing illness before it occurs" has long been discussed in Chinese medicine. Sun Simiao, a famous ancient Chinese doctor, introduced this concept in his book, *Essential Prescriptions Worth a Thousand in Gold for Every Emergency (Qian Jin Yao Fang)*. He emphasized the importance of addressing potential health issues before they manifest, diagnosing diseases before they become apparent, and treating illnesses before they worsen. This concept embodies the wisdom of the Tao of medicine, which encompasses traditional Chinese medicine principles such as health maintenance, the use of medicine, and influences from Confucianism, Buddhism, and Taoism. This paper examines the concept of "preemptive disease treatment", shifting the emphasis from "treating diseases" to "personal health," and explores its potential application in promoting the long-term sustainability of environmental health.

Keywords: Treating the Undiseased, Preemptive Disease Treatment, Environmental Health

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Introduction

The world is currently in a state of environmental pollution and degradation. Extreme weather events such as floods, heatwaves, droughts, and hurricanes are becoming more frequent. Additionally, environmental hazards are exacerbating social, health, and economic conflicts, and increasing the likelihood of conflicts among countries and regions due to competing interests. As basic survival is threatened, the human desire for sustainable living grows stronger. The question of how to pursue sustainable development in harmony with the earth has become prominent and widely debated issues. In 2015, the United Nations announced the "2030 Sustainable Development Goals," which include 17 core goals. These goals encompass 169 specific targets and 230 indicators, guiding countries worldwide to work together towards sustainable development (Tomáš Hák, 2016, P. 565-573).

SDG 3 aims to ensure and promote healthy lives and well-being for all ages. Despite advancements in medical technology, the shortage of healthcare personnel and the unequal distribution of resources are significant challenges facing public health systems worldwide. For instance, in the United States, healthcare spending accounts for 18% of GDP, yet by 2030, there is still expected to be a shortfall of about one million nurses and one hundred thousand doctors. Healthcare personnel are predominantly concentrated in urban areas, while the population living in rural areas accounts for one-fifth of the entire country (Xiaoming Zhang, 2020, P. 2-9). This is true even in advanced countries, not to mention countries with even weaker infrastructure.

Literature Review

The extraction and combustion of fossil fuels, resulting in greenhouse gas emissions, are major causes of climate change and air pollution. According to WHO data, almost the entire global population (99%) breathes air that exceeds WHO guideline limits, with high pollutant levels especially prevalent in low- and middle-income countries. Research from Taipei Medical University suggests that rapid weather changes not only contribute to natural disasters but also impact air quality, making individuals with chronic obstructive pulmonary disease (COPD) more susceptible to worsening symptoms or exacerbations during extreme weather conditions (Donaldson GC, 1999, P. 844-849). Further analysis indicates that toxic air, water, soil, and workplace environments are responsible for causing illness or death in one-sixth of the global population. The true total may be significantly higher by several million people, as the impacts of many pollutants remain poorly understood. Deaths attributed to pollution exceed the combined toll of AIDS, malaria, and tuberculosis deaths by threefold. Environmental air pollution collectively leads to 9 million premature deaths annually and causes losses exceeding \$4 trillion USD (World health statistics, 2024). Without preparedness and adequate assistance, regions with weak healthcare infrastructure, primarily in developing countries, will be the least capable of coping with challenges. Finding ways to adjust one's health management capabilities in the face of climate and environmental change may offer a path to escape from the world's healthcare challenges.

Over two thousand years ago, traditional Chinese medical philosophy already proposed the concept of "Treating the Undiseased" The "Huangdi Neijing" (黃帝內經) states, "The superior doctor treats before the disease, the mediocre doctor treats when the disease is just beginning, and the inferior doctor treats after the disease has developed." This passage suggests that the most skilled doctor is not necessarily the one who excels at treating disease, but rather the one who can prevent illness. "Su Wen. Sih Chee Tiao Shen Da Lun" (素問 · 四

氣調神大論) mentions "The sage does not treat the already ill but prevents illness; does not address the already fallen but prevents falling. When illness has already manifested, then medicine is applied; when a fall has already occurred, then treatment follows. It's like being thirsty and digging a well, or being in a battle and forging a weapon. Isn't it already too late?" Medical expert Sun Simiao's work "Qian Jin Yao Fang" (千金要方) mentions "eliminating potential problems and treating diseases before they occur." "Han Feizi: Yu Lao" (韓非子 · 喻老) states, "Tangible things often start small; things that last long often start with a few." This advises us to prevent problems before they occur.

"Treating the Undiseased" has three meanings: first, preventing disease before it occurs through self-regulation and health maintenance; second, early treatment of existing diseases to prevent progression; third, preventing recurrence and complications of diseases. When certain signs appear in the human body or when a disease is in its early stages, timely measures should be taken to prevent its progression. By addressing issues early, seizing the opportunity for treatment, one can achieve the goal of "Treating the Undiseased" "Su Wen: Yin Yang Ying Xiang Da Lun" (素問 · 陰陽應象大論) states, "a skilled healer treats the skin and hair first, then the muscles and flesh, followed by the tendons and meridians, then the six viscera, and finally the five organs. Treating the five organs is akin to dealing with a patient who is half dead and half alive" (Maoshing Ni, 1995). The above passage illustrates that a skilled healer can detect signs in a patient's body early and treat proactively, preventing the disease from progressing and worsening. If each stage of the illness is not promptly identified and treated early, it could develop into a critical condition. Post-treatment, there may also be significant residual effects, highlighting the importance of early detection and treatment. Research from the World Health Organization shows that one-third of diseases can be prevented through preventive healthcare measures, another third can be effectively controlled through early detection, and the remaining third can benefit from improved treatment outcomes through effective healthcare information.

Conclusion

Western medicine focuses on treating "already sick" conditions, whereas Chinese medicine treats "not yet sick" conditions. Western medicine relies on diagnostic instruments and data to confirm treatment plans, but many early-stage diseases cannot be detected by instruments, leading to delayed treatment. Apart from surgery, most Western medicine treatments mainly focus on symptom management, lacking effective specific medications for many diseases. In contrast, traditional Chinese medicine can help adjust patients based on symptoms, cold and heat sensations, deficiency and excess, and yin and yang principles. Chinese medicine emphasizes balance and harmony with natural rhythms rather than eradicating pathogens or combating diseases. It highlights functional balance and the integration of human health with the natural universe. Traditional Chinese medicine emphasizes balance and adjustment, which is why in its literature, there is little mention of terms like "eliminating pathogens" or "resisting diseases." Instead, it focuses mostly on harmonizing the yin-yang balance within the body and aligning with the natural laws of the universe.

Traditional Chinese medicine provides theories and practices for managing health, preventing disease progression, and preventing relapse after recovery. "Su Wen. Shang-guo Tyan-jen Lun" (素問 · 上古天真論) states that "In ancient times, there were true individuals who grasped the heavens and earth, balanced yin and yang, breathed essence and vital energy, maintained spiritual integrity independently, and unified their body and spirit. Thus, they

could transcend the limitations of time and space and achieve immortality. This is the way of life they followed. " Therefore, it is evident from this that our ancestors have always prioritized prevention over treatment. Faced with modern complex and evolving diseases, unknown epidemics, and the trend of diseases affecting younger age groups and increasing numbers of medical consultations, adopting the perspective of " Treating the Undiseased " from traditional Chinese medicine could undoubtedly enhance awareness of health management for everyone, thereby promoting health in the most appropriate manner.

Traditional Chinese philosophy emphasizes the relationship between humans and the natural universe, encapsulated in the concept of "unity of Heaven and humanity." This perspective holds that people should harmonize with natural laws and seasonal changes, regulating diet and daily routines accordingly, to maintain balance with the natural world and prevent illness. "Ling Shoo. Syeh Kuh" states that "Humans correspond with Heaven and Earth." This passage refers to "Heaven" as the natural world. Traditional Chinese medicine emphasizes how natural environments such as seasons, climate, day and night cycles, and geography affect the human body. Chinese medicine holds that changes in the natural environment can influence physiological processes, pathological conditions, and health outcomes in individuals. Therefore, both health preservation and disease treatment in Chinese medicine take into account the impact of natural environments on the human body. Therefore, just as plants sprout and grow in spring, flourish with lush foliage in summer, shed leaves and turn yellow in autumn, and wither in winter, these are all natural rhythms of the seasons. We live on Earth and naturally are influenced by the cycles of the natural world. In different seasons, humans experience varying patterns of illness. In spring, when winds are strong and everything is growing, there is an increase in infectious diseases and exacerbation of allergic conditions. Hot weather in summer leads to rapid food spoilage and increases cases of diarrhea and gastrointestinal infections such as cholera, typhoid, and dysentery. Dry climate in autumn can lead to dehydration, dry mouth, dry eyes, itchy skin, and cough with little phlegm. Cold weather in winter makes people susceptible to cold winds, leading to joint pain and stiffness after exposure to cold. Research has found that humans are not only influenced mentally and physically by their surrounding natural environment but are also restricted in their clothing, food, housing, and transportation. As natural ecosystems continue to be disrupted by human activity, when the environment upon which both wildlife and human societies depend for survival is destroyed, people are also contributing to their own destruction.

Modern research has demonstrated that changes in human emotions can affect the nervous, cardiovascular, endocrine, digestive, and immune systems. Many diseases are associated with emotional factors, such as digestive ulcers, hypertension, hyperthyroidism, coronary heart disease, cancer, alopecia, hair loss, neurodermatitis, and depression. Modern medical research has also found that seasonal changes can influence emotions. For instance, during autumn and winter when daylight hours are shorter and the weather is colder, individuals who are sensitive to environmental and climatic changes may experience low mood, fatigue, increased sleepiness, and loss of interest in activities. Depression is more likely to occur during the winter season.

"Soo Wuhn. Shung-goo Tyan-jen Lun" (素問 · 上古天真論) indicate that "In ancient times, those who knew the Dao followed yin and yang and harmonized with techniques." This means that to achieve longevity and health, one must harmonize with the natural changes of yin and yang. And also choosing methods of physical exercise that suit one's own body. Lack of physical activity is a major risk factor for non-communicable diseases (NCDs) and deaths

globally (LIU Jing et al., 2021, P. 1402-1411). Regular physical activity reduces the risk of various cancers by 8-28%, heart disease and stroke by 19%, diabetes by 17%, and depression and dementia by 28-32% (YUAN Yuan, 2022, P. 1003-1011). If global physical activity levels increased, 4-5 million deaths could be avoided annually. Physical activity helps prevent and control NCDs such as heart disease, hypertension, stroke, diabetes, and various cancers, maintains a healthy weight, and improves mental health and quality of life. Physical activity includes walking, cycling, sports, active recreation, and play, suitable for all skill levels. Housework or physically demanding jobs also count as exercise. However, the global estimates show that a quarter of adults and 81% of adolescents do not engage in sufficient physical activity (LIU Yang & YUAN Ya-qing, 2020, P. 197-203). As countries develop, inactivity increases due to changes in transportation, work, and leisure technologies, potentially reaching 70%. This impacts health systems, environments, economic development, communities, and personal well-being, affecting the achievement of global and sustainable development goals.

New diseases like COVID-19 are emerging at unprecedented speeds, disrupting lives, health, and causing socio-economic impacts. Environmental pollution requires collective efforts to manage, and timely response and adaptation to extreme weather and environmental changes are necessary. Adopting the "preventive treatment" concept from Chinese medicine, regardless of a country's wealth, can enhance health management awareness, such as maintaining regular diet and lifestyle, adapting to environmental changes, managing emotional stress, and engaging in physical activity. Once overall health levels are improved, it can enhance a country's economic strength.

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A Study of the Significance of Folk Religious Beliefs in the Ancestral Indoctrination in Penghu, Taiwan

Che-Chung Yang, Weixin Shengjiao College, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The Penghu Islands are situated in the middle of the Taiwan Strait and are characterized by unique climate and geographic conditions. Over the centuries, they have been governed by various Chinese dynasties and foreign regimes. During the Qing Dynasty in China, when the situation was turbulent, local scholars noticed a decline in people's morale. They established shrines (Luan Tang) and academies (Shan She) in temples to provide moral education for ancestors based on religious beliefs to promote moral enlightenment among the people. This initiative effectively stabilized people's emotions and influenced the population positively. This distinctive temple belief system is still actively shaping the mindset of Penghu islanders and influencing the island's modernization. This paper will utilize literature analysis and fieldwork to investigate the distinctive temple beliefs in the Penghu area and their educational aspects. The aim is for the findings of this study to enhance the development of Penghu's modern social environment.

Keywords: Penghu, Luan Tang, Temple Belief

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Introduction: The Culture of Temple Beliefs at Penghu

The Penghu temple belief culture reflects the unique historical, geographical, and social background of the region. Penghu, relative to mainland China, is considered a borderland maritime frontier. Throughout its historical past, it has not received significant attention from the country, yet it has been coveted by pirates and major naval powers around the world. According to historical documents, the Ming Dynasty indeed dispatched military forces to Penghu to pursue and eliminate pirates, repelled Dutch fleets twice, and claimed Penghu as territory of the Ming Dynasty (Chen Zongren, 2023).

When the early settlers arrived in Penghu, they encountered a challenging environment with limited natural resources. They brought with them their native folk beliefs and cultural practices, establishing temples to worship the deities from their homeland. These temples served as spiritual sanctuaries and symbols of cultural continuity in the harsh conditions of Penghu. The temple beliefs in Penghu blend reverence for veneration of heaven, ancestor worship, shamanism, pan-spiritualism, and elements of Buddhist and Taoist thought. This folk belief system is characterized by its practicality and utilitarian aspects (Chen, 1994).

During the Yuan Dynasty in the year 1281 AD, a temple dedicated to the Tin Fei (天妃廟) was constructed in Penghu, and it was honored with the title "Protective and Enlightened Tin Fei of the Nation". During the Ming dynasty period (1299~1662), six more temples were constructed in Penghu (Penghu County Government, 1981). In 1624, Penghu had a total of 26 households. By 1644, an additional 82 households had immigrated to Penghu, and from 1661 to 1662, another 83 households moved in. Over several decades, the total population from immigration to Penghu amounted to approximately 1,682 people. The predominant beliefs in various Penghu settlements center around the worship of Guan Sheng Dijun (關聖帝君), Xuantian Shangdi (玄天上帝), and Wangye (王爺) (Cai and Chen, 2023).



Figure 1: The Tianhou temple.

According to the 1910 "Comprehensive History of Taiwan" (臺灣通史), the Tianhou Temple (天后宮), Shuixian Temple (水仙宮), Guanyin Pavilion (觀音亭), and Zhenwu Temple (真武廟) in Magong City, Penghu, were constructed by officials stationed in Penghu during the Qing Dynasty, giving these temples an official character Lian, 1973).

Villages, depending on the deities they worship, generally venerate figures such as Guanyin Bodhisattva (觀世音菩薩), the Jade Emperor (玉皇大帝), Baosheng Dadi (保生大帝),

Xuantian Shangdi (玄天上帝, Wangye (王爺), generals (將軍), and princes (太子). Temples are built to serve the villages, and they have continued to exist to this day because of their perceived efficacy. According to 1981 statistics, Penghu has a large number of temples with magnificent architecture, often costing millions, funded by local residents without official subsidies (Chen Xinxiong, 1994).

The Origins and Significance of Shrine (Luan Tang)

During the chaotic late Qing Dynasty period, societal customs were deteriorating, the opium epidemic was severe, and the nation was in turmoil. In 1853, Penghu scholars witnessed spirit-writing activities in Quanzhou and introduced the practice to the Puxuan Society, Magong City, Penghu. They used spirit-writing (飛鸞扶乩) to preach virtues, encourage people to do good deeds, and advise against opium smoking. They hoped that divine beings, like the mythical phoenix of ancient times, would descend to the human world, alleviate the suffering of the people, and bring about a peaceful and harmonious society, relieving the hellish conditions of that time (Juewu Xuanxin, 1978).



Figure 2: Used spirit-writing.

Traditional Chinese scholars established shrines (Luan Tang) and academics (Shan She) within temple grounds, integrating Confucian thought into religious practices to educate and morally guide the populace. This combination of temple worship and Confucian moral instruction continues to be practiced in contemporary society.

Explain this symbol 飛 from the meaning of its characters which representing the action of flying. All characters related to flying are derived from this form; it resembles the posture of a bird stretching its neck and spreading its wings (Duan, 1975).

Explain this symbol 鸞 from the meaning of its characters which representing the essence of a red divine spirit; red in color, with five colors and the shape of a chicken; it produces sounds corresponding to the five musical notes, and when it sings, it brings harmony.

Explain this symbol 扶 from the meaning of its characters which representing to assist with the hand (Xu, 1988; Duan 1975).

Explain this symbol 乩 from the meaning of its characters which representing to divine or consult for resolving doubts (Kangxi Dictionary). "Divination is used to resolve doubts; without doubts, why seek divination? To inquire about doubts, it follows the mouth, commonly written as 'ji'" (乩) (Xu, 1988; Duan, 1975).

Since 1891, when the establishment of Luan practices in Penghu began with the publication of "Juewu Xuanxin" by Lexiantang of Yixin Society, a new foundation was laid for Luan activities throughout Taiwan. By 2001, Penghu had a total of 60 temples with Shrines (Luan Tang) that had produced 241 volumes of Luan Tang scriptures (Zhu, Zhu, Zhu, Zhu, 2009). From the Qing Dynasty to contemporary times, the moral education provided by Shrines (Luan Tang) in Penghu temples has had a profound effect on promoting social stability.



Figure 3: Yixin Society in Penghu

After the establishment of Shrines (Luan Tang), the deities within the temples were assigned specific duties. The participants in the Shrines (Luan Tang), known as "Luan Sheng" (鸞生), also have specific roles and responsibilities. The process of creating Luan scriptures required applying for a divine decree (玉旨) from the Jade Emperor before beginning. The divine decree specified the deadline for completing the scriptures. During the creation process, each article and case had to be publicly proclaimed to the people. Upon completion, the Luan scriptures had to be published and distributed to temples across Taiwan, providing reading and teaching material for people in other regions (Juewu Xuanxin, 1978).

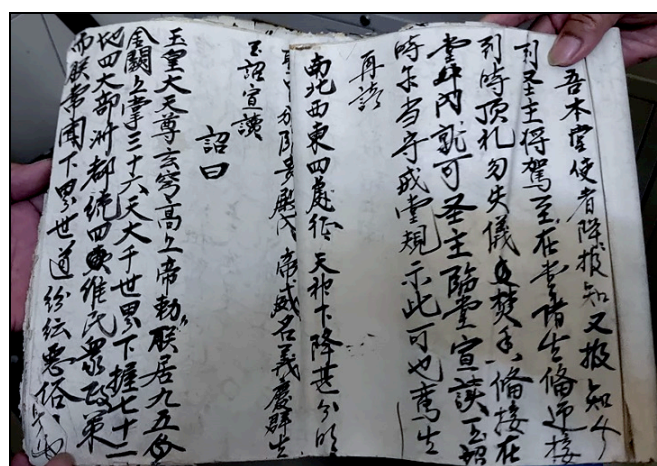


Figure 4: A divine decree.

Centuries of Education and Enlightenment

The Luan scriptures quote the "Qian" and "Kun" from the I Ching, as well as the metaphor of Yin and Yang giving birth to all things. It also references the clarity and turbidity of the "Dao". This is like what is described in the Sequence of Hexagrams from the second canon of the I Ching: "With Heaven and Earth established, then all things are born. With all things born, then there are men and women. With men and women, then there are husbands and wives. With husbands and wives, then there are fathers and sons. With fathers and sons, then there are rulers and subjects. With rulers and subjects, then there is hierarchy. With hierarchy, then propriety and righteousness have their place" (Nan and Xu, 2013). This uses the theory of Yin and Yang to educate people, aiming to restore their innate goodness.

In the Luan scriptures, the five cardinal relationships are discussed: "ruler and subject, father and son, husband and wife, elder and younger brothers, and friends." It also elaborates on the eight virtues: "filial piety, brotherly love, loyalty, trustworthiness, propriety, righteousness, integrity, and a sense of shame". Therefore, outside of the national education system, direct moral education from the elderly to the young is used to persuade and guide people towards behaviors that are kind, upright, and enterprising, while steering them away from deceitful, wicked, and opportunistic behaviors.

In the Luan scriptures, stories from the Investiture of the Gods are cited to illustrate that people must fulfill their filial duties, perform their responsibilities, and do good deeds. By doing so, they can enter the divine realm after death and become revered and respected deities. At the same time, numerous cases are cited to illustrate that those who commit murder, rape, adultery, fraud, poisoning fish, or slaughtering animals will inevitably fall into hell, face judgment, and endure the suffering of punishment.

Luan scriptures use deification cases to illustrate that practicing filial piety, fulfilling one's duties, and doing good deeds can lead to becoming deified after death.

Luan halls provide consultations for believers on a variety of issues, including illnesses that doctors cannot cure, disturbances caused by evil spirits in homes, spiritual invasions of the body, and selecting auspicious dates for moving into a new residence. These services aim to boost people's confidence and bring peace of mind.

During the 1980s, there were instances in Penghu where a few individuals used the chemical potassium cyanide to catch fish and fry, causing an ecological crisis in the marine environment. Through the moral education provided by Shrines (Luan Tang) and strong enforcement by the government, the trend of environmental destruction was mitigated, allowing for the possibility of regeneration. The educational role of Shrines (Luan Tang) indeed played a significant part in transforming Penghu residents from environmental disruptors into stewards of natural conservation and marine life rehabilitation. This transformation has enabled the sustainable development of Penghu's temple-based belief culture and tourism industry.

When people from Penghu leave their hometown to pursue careers elsewhere, they often bring the main or auxiliary deity statues and ancestral tablets from their original village homes to their new residences for worship and veneration. This practice helps to uphold traditional customs and embodies the coexistence of modernity alongside traditional folk beliefs and culture.

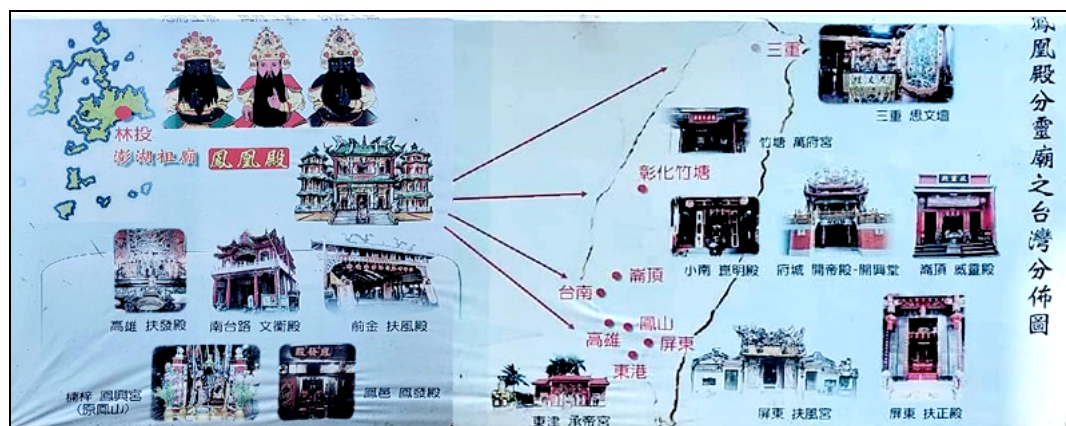


Figure 5: Phoenix temple in Lintou Village, Penghu County, and its branch temples in other regions.

Conclusion

The temple belief culture in Penghu remains present in contemporary times. Temples in each village continue to conduct rituals following ancient protocols, and they regularly train selected school children to become young priests who safeguard the temples. These young priests are trained in Daoist arts or spiritual healing to serve the residents, thus cultivating a unique temple culture in Penghu. These temples also provide spiritual solace to the people of Penghu, promote the unity of village residents, and contribute to grassroots community defense systems, helping to maintain the safety and environment of the villages.

Shrines (Luan Tang) have played a crucial role since the late Qing Dynasty, providing moral education and operating shamanic and medical systems, continuing to be deeply rooted in the traditional memory of the people of Penghu for 150 years. However, in contemporary times, factors such as severe population outflow, industrial and commercial development, higher educational levels, and busy lifestyles among residents have led to a severe shortage of people actively participating in Shrines (Luan Tang) activities. To propagate Luan scriptures and educate the residents effectively, a coordinated effort involving many individuals is necessary. With dwindling personnel, Shrines (Luan Tang) are facing increasing challenges in continuing their operations, raising concerns that this temple-based belief culture may fade away quickly due to insufficient manpower.

According to official statistics from Penghu as of December 31, 2022, there are a total of 96 villages with a population of over 100,000 people. There are also 191 registered temples and religious institutions across various denominations (Penghu County Government, 2023). This clearly shows that the residents of Penghu still have a significant need for and place great importance on temples and their associated beliefs.

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***Research on Context Analysis and Interpretation for Paiwan Mouth Flute and
Nose Flute Life Craft Culture of Taiwan Indigenous Peoples***

Hsuan-Kai Chen, National Yunlin University of Science and Technology, Taiwan
Wen-Shan Chang, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
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Abstract

In the indigenous community of Taiwan, Paiwan Mouth Flute and Nose Flute craft has gradually become marginalized due to technological progress and the influence of mainstream culture, becoming a highly valuable cultural asset. Despite recent attempts at digital preservation, purely Digital Archive struggles to convey the historical and cultural significance. Challenges such as talent outflow and economic decline further exacerbate the difficulties faced in the inheritance and development of Mouth Flute and Nose Flute culture. This study adopts a Digital Humanities perspective to systematically organize extensive data and utilizes contextualized analysis for a visually presentation, enhancing the understanding of the cultural development structure. The goal is to promote and sustain the cultural heritage more effectively. By collecting literature, the study employs Historical Method to organize and create visual presentation such as a cultural context sketch and a historical development distribution map for Paiwan Mouth Flute and Nose Flute Life Craft. In-depth Interviews invites scholar and craftsman to provide revisions, presenting a comprehensive cultural context diagram. Through this research, the aim is to deepen the understanding of the cultural significance and impact on the Paiwan community conveyed by the Mouth Flute and Nose Flute, comprehensively showcasing its cultural charm. It is hoped that based on this study, future developments in digital applications for culture will elevate cultural value and economic level, contributing to sustainable development goals. The research model presented here can also serve as a reference for future researchers and developers in related fields.

Keywords: Paiwan, Mouth Flute and Nose Flute, Context Analysis

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Introduction

In Taiwanese society, the advancement of technology and information has influenced many traditional cultures, including that of the indigenous peoples of Taiwan. Indigenous peoples have a history spanning thousands of years in their original tribes, developing unique cultures. However, in recent years, employment and economic pressures have led to indigenous peoples migrating to more economically viable urban areas, indirectly impacting the future development and preservation of culture in tribal regions (Chen, 2008). As a result, some indigenous cultures are gradually disappearing, such as the Paiwan tribe's "Mouth Flute and Nose Flute", which reflects the group's way of life, values, and carries emotional and ancestral significance. Therefore, enhancing tribal social progress and preserving cultural sustainability has become a major issue.

In recent years, the Taiwanese government has utilized digitalization to preserve and develop indigenous cultures, attempting to promote the growth of the knowledge economy and industries. However, there is a lack of understanding of the cultural significance behind artifacts and the collective memory of tribes (Tsai, 2009). Therefore, this study adopts a Digital Humanities perspective to address past issues in cultural artifact preservation by employing dynamic management of interpretive data, transforming culture into contextualized and visually presented forms. This allows for more analysis and development space for such cultures and enables more diverse interdisciplinary value utilization.

This study utilizes a Digital Humanities perspective with a focus on Paiwan Mouth Flute and Nose Flute culture as the primary research objective. The aim is to have a deep understanding of the cultural context of the Paiwan Mouth Flute and Nose Flute. After outlining the cultural context of Mouth Flute and Nose Flute, digital tools and platforms are utilized for analysis and Metadata, designing visual presentations to enable audiences to quickly comprehend the cultural significance of Mouth Flute and Nose Flute. This aims to enhance cultural value and the important goal of inheritance. Therefore, the research objectives of this study are as follows:

1. Analyze and outline the context diagram of the Paiwan Mouth Flute and Nose Flute culture.
2. Develop visual presentations of Paiwan Mouth Flute and Nose Flute culture.

Paiwan Mouth Flutes and Nose Flutes

From the perspective of world ethnic music, Austronesian ethnic groups predominantly use simple bamboo and wooden instruments. Taiwanese indigenous peoples have also developed a rich culture of wooden and bamboo instruments, including xylophones, mouth organs, bowed instruments, nose flutes, among others, utilizing abundant wood and bamboo resources. The traditional instrument of the Paiwan tribe, the "Mouth Flute and Nose Flute," has a long history with origins difficult to ascertain, known only through myths and legends. Taiwan has undergone various ruling regimes, exposing indigenous cultures to external civilizations. The earliest written records of Mouth Flute and Nose Flute date back to the Qing Dynasty and the Japanese colonial period, with the Double-tube Nose Flute being the only instrument among Taiwanese indigenous peoples capable of producing harmonics and rarer than Nose Flutes found in South Pacific regions. However, its traditional music and associated taboos have gradually faded (Tseng, 2012). Since 1945, with advancements in research methods, the quantity of literature has continuously increased. However, by the 1960s, surveys conducted by Lu Bing-chuan revealed that aside from some Paiwan and Rukai

tribes, the artistry of using Mouth Flute and Nose Flute among indigenous peoples had nearly become historical, indicating severe loss of this traditional skill at that time.

To address this situation, Hu Tai-li was commissioned by the "Council for Cultural Affairs, Executive Yuan (Taiwan)" in 1995 to conduct in-depth research on Mouth Flute and Nose Flute. Over the years, the results of Hu 's research and preservation efforts have been compiled into four categories of important Paiwan flutes: Double-tube Nose Flutes, Double-tube Mouth Flutes, Single-tube five-hole Mouth Flutes, and Single-tube seven-hole Mouth Flutes, along with various music scores and analyses, flute-making techniques, significantly contributing to the preservation and inheritance of Paiwan Mouth Flute and Nose Flute culture. Currently, the usage and preservation of Mouth Flute and Nose Flute among Taiwanese indigenous peoples, particularly the Paiwan tribe, remain prominent (Hu ,2001).

The crafting of Paiwan Mouth Flute and Nose Flute integrates nature and culture, with bamboo selection requiring consideration of the season and collection from deep mountain areas. The process involves drying, baking, and measuring finger holes, deeply influenced by ancestral worship and the legend of the hundred-paced snake, imbuing flute-making with cultural significance. However, there are few successors in the new generation, with only a handful dedicating themselves to the technical craftsmanship of flute-making. Moreover, the carving on the flute body intuitively connects with historical memory and cultural experiences, but bamboo skin is thin and susceptible to damage if not handled with good carving skills. Hence, it is evident that the craftsmanship of Mouth Flute and Nose Flute making requires accumulation of time, experience, and a certain understanding of one's own culture to produce a standard Mouth Flute and Nose Flute, highlighting the preciousness of these instruments.

The Application of Digital Humanities

Digital technology and its applications have profoundly influenced and shaped contemporary society, providing opportunities for new work, communication, and research in cultural and other domains. The rise of digital communication and virtual environments has provided platforms for new forms of art and interaction, creating new records and interactive modes using digital technology, while also offering tools to enhance audience engagement, thus better achieving preservation and dissemination goals (Affleck & Kvan, 2008).

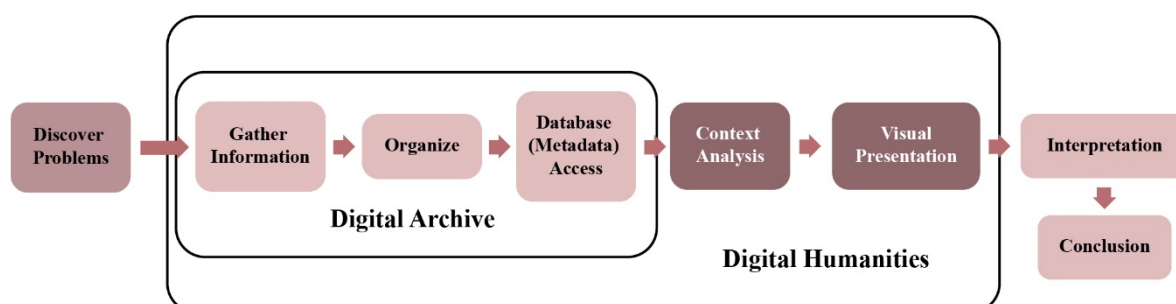


Figure 1: The humanities research process in Digital Humanities collaboration

Thus, Digital Humanities has emerged, emphasizing the importance of context and visual presentation in the process of Digital Archiving. After identifying issues, data is collected, organized, and recorded as Metadata in databases for retrieval. Digital Humanities recognize

the value of cultural content and expression, enabling organized analysis to identify cultural contexts within vast cultural data and share them through visual means that are easier to convey and present. The synergistic combination of information technology and humanities research allows researchers to explore data more comprehensively and continually adjust and generate new problem awareness during the research process (Xiang, 2018).

In the early stages of Digital Humanities research, most scholars were primarily computer scientists, with fewer participants from the humanities, who also lacked effective mastery of digital tools, making it difficult to lead research directions and obtain research results. With the development of digital technology, however, the field gradually matured, with humanities scholars beginning to collaborate with information scientists or develop their own analysis systems. As involvement in Digital Humanities research expanded, academic perspectives also broadened, encompassing textual and imagistic expression and providing new presentation methods for the visualization of traditional literature. Integration with background information systems, such as temporal-spatial information systems and the expanded use of GIS (Geographic Information Systems), enables traditional, complex, and opaque literary data to be presented visually, making their characteristics more understandable to readers. Simultaneously, readers can quickly grasp various word frequency distributions and effectively utilize textual comparisons to identify intertextual relationships (Yang, 2023). This interpretive approach also provides more research outcomes for the exploration of the Mouth Flute and Nose Flute craft life.

The Paiwan Mouth Flute and Nose Flute in Digital Humanities

In this study, the concept of Digital Humanities is introduced to comprehensively present the cultural significance of the craft of Mouth Flute and Nose Flute. In collecting literature and organizing data, besides ensuring the accuracy of the information, complete contextual maps will be compiled from multiple perspectives. Subsequently, the ArcGIS platform will be utilized for visualization. The ArcGIS platform not only allows for the importation of interpretive data but also links various functionalities and programs on ArcGIS Online for analysis and map creation, thus creating different spatiotemporal map patterns within the cultural context of Mouth Flute and Nose Flute craftsmanship. Furthermore, it can analyze, manage, and share geographic information, providing user-friendly editors that allow non-experts to participate and lowering the usage threshold. Additionally, it can be used, collaboratively edited, and information shared across different mobile devices, enhancing the visibility of culture. Therefore, as a digital tool for visualization, it is highly suitable and can leverage greater cultural value and impact.

Methods

To delve deeper into the essence encapsulated within the craft and cultural significance of Flute and Nose Flutes, as well as their extensive historical development, this study employs historical research methods and in-depth interviews. Data related to Paiwan Mouth Flute and Nose Flute were collected, organized, analyzed, and summarized to comprehend the meaning and importance of Mouth Flute and Nose Flute within Paiwan culture. At the outset of the research, historical research methods were utilized to clarify the origin and developmental context of Mouth Flute and Nose Flute culture. Subsequently, interviews were conducted with Paiwan Mouth Flute and Nose Flute artisans and academic representatives to achieve the objectives of this study.

Historical Research

From a theoretical perspective, historical research method is a methodology for studying historical events and their evolution. From a technical standpoint, historical research method can explore any factual occurrences of the past. By employing scientific methods, it aims to discover and present the truth of past events, providing a historical background for current institutions, measures, and issues, and integrating perspectives from different periods to interpret their new meanings and values. It seeks to identify and verify causal relationships, serving as a process for analyzing the present and predicting the future (Chen, 2018).

The execution of historical research method involves three main components: research design, historical analysis, and report writing. Research design includes selecting the research topic and defining research questions. Historical analysis encompasses data collection, analysis, authentication, integration, and interpretation. Report writing involves presenting research findings and composing the research report. Therefore, this study focuses on the historical development of Paiwan Mouth Flute and Nose Flute culture. It involves further searching for primary sources, including actual Mouth Flute and Nose Flute, textual and audiovisual records, oral testimonies from relevant individuals, as well as literature such as *"The Music of Takasago Tribes in Formosa"* (by Kurosawa Takashi, 1973), *"Paiwan double-tube Mouth Flute and double-tube Nose Flute"* (by Sauniaw Tjuveljevelj, 2000), *"Paiwan Nose Flute and Mouth Flute"* (by Hu et al., 2001), to gain a deep understanding of its historical background and development context. Subsequently, in-depth interviews will be conducted to cross-validate the accuracy and reliability of the data, laying the foundation for further research and database establishment.

In-Depth Interviews

"In-Depth Interviewing" is utilized in qualitative research, where researchers view the interview process as a speech event and emphasize the collaborative process of meaning construction between the interviewer and the interviewee (Mishler, 1986). The advantage of in-depth interviews lies in their small sample size, providing in-depth narrative opinions to conduct overall generalized inferences and highlight unique professional insights of individual cases. This study adopts semi-structured interviews conducted in a one-on-one format with a predetermined outline of topics. The method employs paraphrasing to guide the interviewees to provide in-depth responses on the topics. This interviewing approach effectively captures the perspectives of the interviewees, particularly suitable for exploring human feelings, emotions, and other traits that are not easily observable. Semi-structured interviews acquire data in a simple, effective, and practical manner, enabling interviewees to express their true thoughts under guidance, thereby revealing the deeper meanings behind their behavior (Ruan, 2018).

The primary goal of this study is to clarify the cultural context of Mouth Flute and Nose Flute, based on historical literature to develop a cultural context diagram of Paiwan Mouth Flute and Nose Flute culture. Three experts with profound knowledge in the field were invited for interviews, including an academic expert in Mouth Flute and Nose Flute culture research, a national treasure-level Mouth Flute and Nose Flute artisan, and the first female player and album publisher of Mouth Flute and Nose Flute. Through in-depth interviews, the experts were guided to provide more comprehensive and accurate answers to fully understand their perspectives. After completing the interviews, the data will be organized and analyzed, and upon confirmation of accuracy, the cultural context diagram will be revised, focusing on a

deeper understanding of Mouth Flute and Nose Flute craftsmanship culture. This will facilitate subsequent digitalization efforts and provide crucial reference for visualization presentation.

Object	Expertise / Experience	Date	Location
Miss Liang	Analysis and Research on Architectural Culture and Cultural Relics of Aboriginal Peoples / Member of Pingtung Cultural Assets Review Committee	2023/06/01	National Yunlin University of Science and Technology
Mr. Xie	Paiwan double-barreled Mouth Flute and Nose Flute / "Important Traditional Art Preserver" designated by Council for Cultural Affairs, Taiwan	2023/11/04	Piyuma, Taiwu Township, Pingtung County 921, Taiwan
Miss Sauniyau	Paiwan double-barreled Mouth Flute and Nose Flute / Intangible Cultural Assets of the Ministry of Culture Taiwan, Pingtung County Government, Preserver of the traditional art of Mouth Flute and Nose Flute of the Paiwan people, Nominated for the 27th Golden Melody Awards Ethnic Language Singer Award	2023/06/15	National Yunlin University of Science and Technology

Table 1: In-Depth Interview objects

Creation of Database Metadata

"Metadata," refers to "data about data," which describes other data. Depending on their attributes and types, Metadata contain various informational fields and descriptive fields to provide basic and advanced information about the stored content. In the humanities field, the establishment of metadata aids in the use of retrieval systems and allows users to quickly understand the basic data and important information of the stored content. By presenting the stored content in terms of "time," "space," and "theme," users can quickly understand relevant content from historical periods, geographical information, and themes (Ministry of Culture, 2020).

Therefore, this study utilizes the ArcGIS platform to digitally construct Metadata, enabling the main content of digitalized Mouth Flute and Nose Flute data to be described more rapidly and clearly. In this way, each data user can understand the content of Mouth Flute and Nose Flute culture data through browsing Metadata, thereby achieving the purpose of data searching, management, maintenance, and dissemination. Additionally, Metadata can be further used for visualization presentation and processing in the future.

Display name	Field	Type
OBJECTID	OBJECTID	ObjectID
Name	Name	Title
birth year	birth year	Date
Ethnicity	Ethnicity	String
Holding a flute	Holding a flute	String
length	length	String
Number of holes	Number of holes	String
blow mouth	blow mouth	String
Mouth Flute and Nose Flute title	Mouth Flute and Nose Flute title	String
Learning Resume	Learning Resume	String
Wind instrument qualification	Wind instrument qualification	String
Flute sound performance	Flute sound performance	String
Towns and villages	Towns and villages	String
Purpose for blowing	Purpose for blowing	String
clan name	clan name	String
other	other	String
Photos and files	Photos and files	Appendix

Table 2: Mouth Flute and Nose Flute culture Metadata field

Metadata is particularly important in humanities and social science research because these fields often involve complex social and cultural phenomena that cannot be fully understood solely through numbers and statistical data. Through Metadata, researchers can delve deeper into the cultural significance, social relationships, and individual perspectives of Mouth Flute and Nose Flute craftsmanship, thereby gaining a deeper understanding and insight into the research topic.

Results

This study introduces the traditional craftsmanship of Mouth Flute and Nose Flute of the Paiwan indigenous tribe in Taiwan within the framework of Digital Humanities. Its aim is not only to preserve this cultural treasure with a history spanning thousands of years but also to facilitate a deeper understanding of the cultural value and significance behind this craft through the analysis of cultural context, thereby contributing to the goal of cultural heritage preservation. In terms of research methodology, historical research methods are employed for data collection, analysis, authentication, integration, and interpretation to establish the cultural context of Mouth Flute and Nose Flute craftsmanship. Subsequently, in-depth interviewing is utilized to verify and compare the accuracy of this context, ultimately forming a cultural context diagram of Paiwan Mouth Flute and Nose Flute craftsmanship. Based on this diagram, the construction of metadata is further conducted, and the visualization of data is presented to enable even those unfamiliar with this culture to engage with it. In the future, this study can also enable subsequent researchers to explore more diverse ways of presentation, engage in interdisciplinary applications, and showcase its maximum impact and value.

Diagram of the Context of Paiwan Mouth Flute and Nose Flute Crafts Culture

Based on the research literature collected using Historical Research methods and supplemented by data unearthed through In-Depth Interviews, continuous revisions and scrutiny have been conducted. This presentation format allows for the clear display of a vast array of items and their causal relationships within limited space, enabling those unfamiliar with the subject to intuitively grasp the cultural significance and interconnections behind Mouth Flute and Nose Flute.

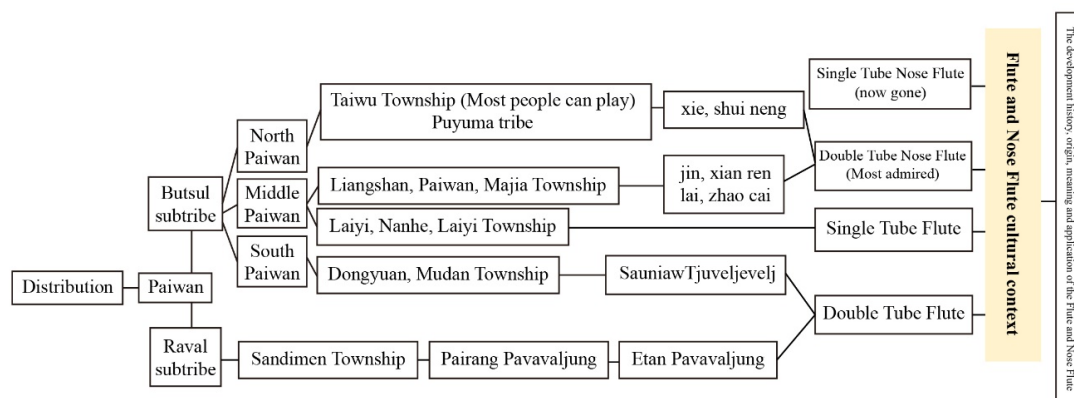


Figure 2: Diagram of the Context of Paiwan Mouth Flute and Nose Flute Culture (part 1)

In Figure 2, the distribution and variations in form of Mouth Flute and Nose Flute among the Paiwan tribe are primarily revealed. It can be observed that Mouth Flute and Nose Flute culture is widely distributed among the Paiwan tribe, particularly prevalent among the "North Paiwan," "Central Paiwan," and "South Paiwan" within the two subgroups of the "Raval" and "Butsul" systems. Different systems give rise to regional developmental differences, with each having its own representatives. Thus, even though most tribes share similar forms and functions, various myths, legends, and crafting practices emerge due to regional disparities, as depicted in this figure.

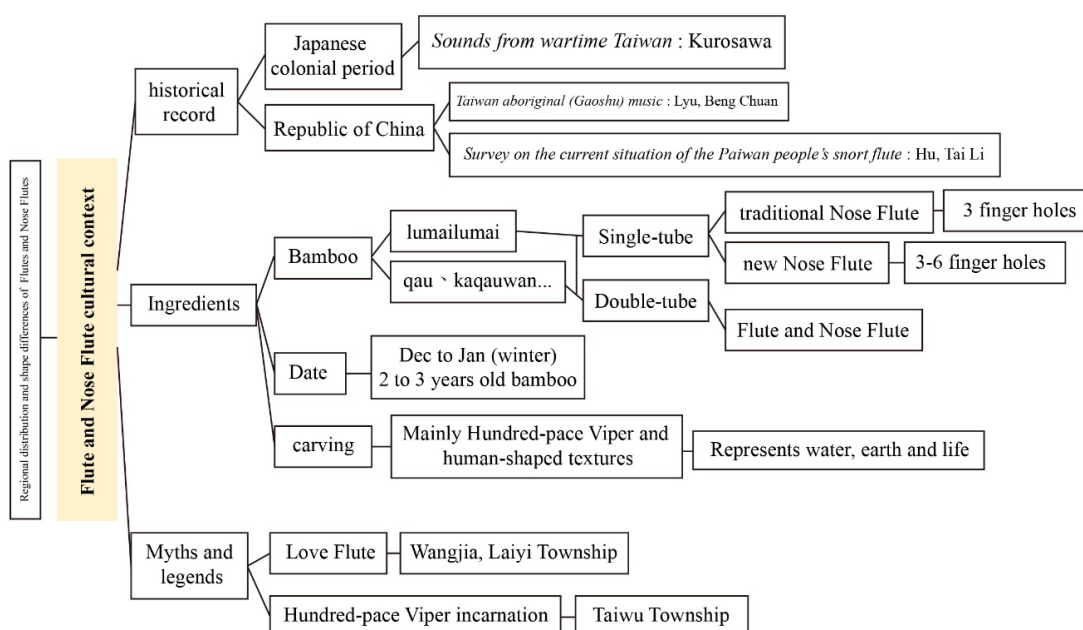


Figure 3: Diagram of the Context of Paiwan Mouth Flute and Nose Flute Culture (part 2)

In Figure 3, a contextual summary is provided regarding the historical development, compositional construction, and mythological stories of Mouth Flute and Nose Flute. With no written system among the indigenous people, the earliest written records date back to the Japanese colonial period, providing insight into the use and forms of Mouth Flute and Nose Flute over the past century. Over time, the cultural significance and use of Mouth Flute and Nose Flute have been more extensively documented. Regarding composition, the materials, harvesting dates, and flute carvings shed light on the production process and its cultural connotations. Mythological stories primarily derive from oral accounts, with these unwritten legends becoming increasingly precious over time.

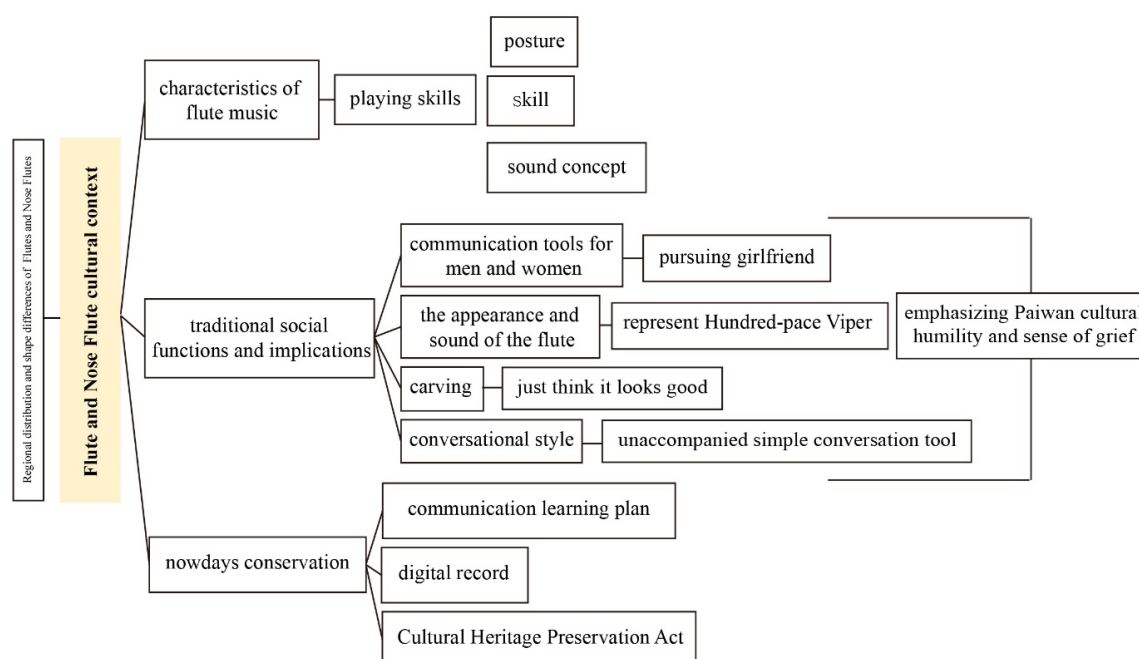


Figure 4: Diagram of the Context of Paiwan Mouth Flute and Nose Flute Culture (part 3)

In Figure 4, a summary is provided on the playing characteristics, traditional societal functions and significance, as well as contemporary preservation efforts of the flutes. In terms of playing characteristics, the research findings of subsequent scholars regarding playing techniques and sound concepts are mainly compiled. In traditional Paiwan society, lacking systematic instruction, individuals rely on self-practice and understanding, resulting in distinct individual playing styles and posing challenges for inheritance. Regarding traditional societal functions and significance, a clear understanding of the primary role, timing of use, and the flute's symbolic representation as the guardian spirit of the Paiwan tribe, the Centipede God, is attained, indicating the flute's revered status within the Paiwan tribe, symbolizing collective humility and mourning. Finally, efforts made to preserve this precious culture in contemporary times are described. In addition to implementing transmission programs, digital documentation and regulations have been established to regulate and preserve this cultural content, with the hope of ensuring its continuity through these endeavors.

Visualized Presentation of Historical Distribution of Paiwan Mouth Flute and Nose Flute Crafts Culture

Based on the cultural context, this study utilizes the ArcGIS geographic information system platform to establish metadata. It visually presents data on Mouth Flute and Nose Flute,

including regional distribution, distribution of artisans, forms, and usage, since the existence of written records. This visualization is done on maps in terms of time, space, and content. It enables users to analyze, organize, search, and manage data, while also contributing to the goals of preserving, maintaining, and disseminating Mouth Flute and Nose Flute culture. Additionally, this method lays the foundation for subsequent diverse applications.



Figure 5: Distribution of indigenous people with Mouth Flutes and Nose Flute During the Japanese colonial period

From Figure 5, it can be observed that during the Japanese colonial period (1900s), indigenous tribes all used Mouth Flute and Nose Flute to some extent. However, in the northern regions, usage was relatively scarce among tribes, while in the south, nearly every tribe used Mouth Flute and Nose Flute, especially among the Paiwan and Rukai tribes. However, Mouth Flute and Nose Flute are now almost exclusively found among the Paiwan tribe. At that time, Mouth Flute and Nose Flute varied in length from 15 to 50 centimeters and had 3 to 6 holes. Some tribes used them for rituals such as mourning, obtaining heads, or marriage ceremonies. They were most found among the 22 and 12 societies of the Paiwan and Rukai tribes, with lengths ranging from 30 to 90 centimeters, but most commonly between 40 and 60 centimeters. The number of finger holes mostly ranged from 3 to 6. Although their function was like today's Mouth Flute and Nose Flute, their form and purpose may have had different cultural meanings at the time.

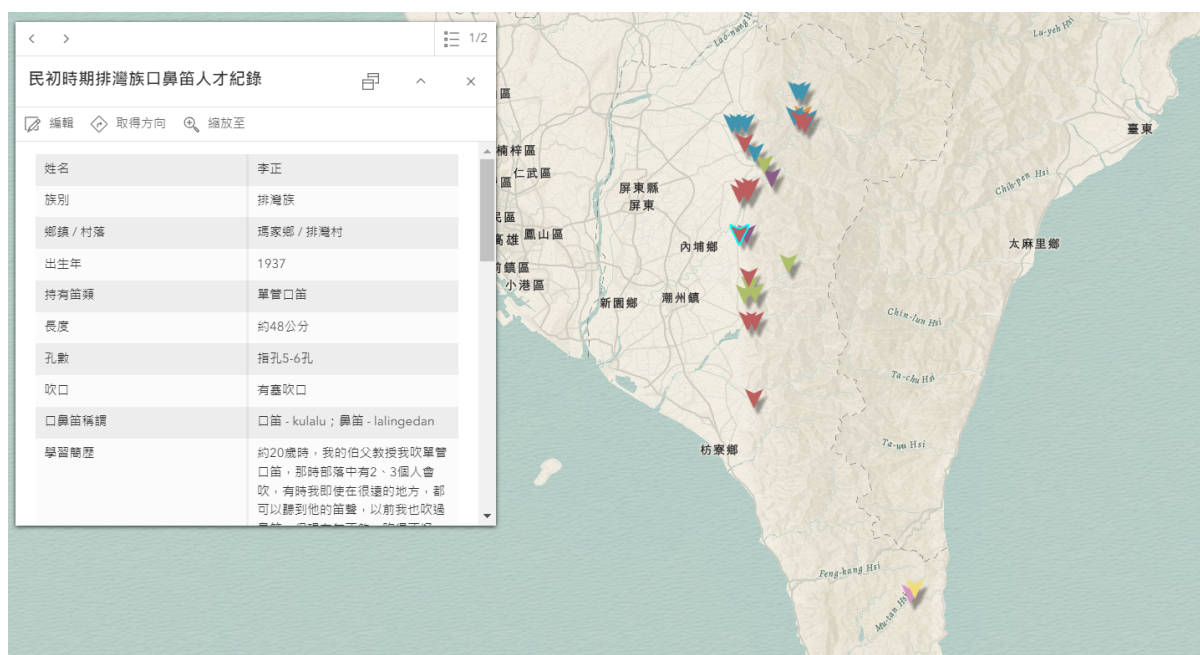


Figure 6: Distribution of Paiwan Mouth Flute and Nose Flute players during the early days of the Republic of China

From Figure 6, it can be observed that during the Republic of China era, compared to the Japanese colonial period, the diversity of Mouth Flutes and Nose Flute significantly decreased, with the use of Mouth Flutes and Nose Flute among different ethnic groups greatly reduced, with only the Paiwan tribe continuing to play Mouth Flutes and Nose Flute. Single-tube Nose Flutes had disappeared, and the number of holes in Double-tube Nose Flute was reduced to only two forms: 3 holes and 5 holes. Among them, 3 hole flutes were mainly concentrated in the northern and central Paiwan tribes of the Butsul system, while the remaining were mostly 5 hole flutes, with lengths mostly ranging from 45 to 60 centimeters. In terms of Mouth Flute, there was a clear regional difference, with Double-tube Mouth Flute mainly found in the Raval system, while Single-tube Mouth Flute were mainly found in the northern and central Paiwan tribes of the Butsul system. However, it is interesting to note that most tribes using Single-tube Mouth Flute are not the same as those using Double-tube Nose Flutes, but are more inclined towards the central region. In terms of the number of holes, whether Single or Double-tube Mouth Flute, 5 holes were mainly used, but 7 hole flutes appeared in villages in Laiyi Township, and some tribes also had 3 hole or 6 hole flutes.

Conclusions

This study employs the framework of Digital Humanities to explore the cultural heritage of Mouth Flute and Nose Flute craftsmanship among the Paiwan indigenous people of Taiwan, with the aim of preserving this cultural asset that spans millennia. Through the analysis of cultural contexts, the goal is to enhance people's understanding of the cultural significance and meanings behind Mouth Flute and Nose Flute, thus facilitating cultural inheritance. Utilizing digital tools, the historical distribution and evolution of Mouth Flute and Nose Flute are presented clearly. The research findings also indicate significant differences in Mouth Flute and Nose Flute culture between the Japanese colonial and Republic of China periods, including changes in form and usage patterns, as well as a reduction in diversity. However, many current practitioners of Mouth Flute and Nose Flute playing are elderly and may not be able to continue the tradition, posing challenges to the cultural inheritance of Mouth Flute

and Nose Flute culture. In the modern era of technological advancement, effectively preserving and inheriting Mouth Flute and Nose Flute culture has become an important issue worthy of further exploration.

Contributions and Suggestions

In today's rapidly advancing society of digital technology, culture is increasingly influenced by universal values and the speed of internet dissemination, presenting a trend towards globalization. While this globalization poses challenges to many cultural industries, it also provides new possibilities for cultural preservation and dissemination. Focusing on the precious craft culture of Mouth Flute and Nose Flute among the Paiwan indigenous people, this study aims to leverage the power of digital technology to present the cultural heritage embedded in Mouth Flute and Nose Flute to the public. Through the emerging perspective of digital humanities and the application of digital tools in Mouth Flute and Nose Flute culture, the study seeks to enhance its cultural allure and value. The outcomes not only generate value for relatively less explored digital humanities applications in Taiwan but also contribute to subsequent researchers and the cultural industry.

By integrating cultural contexts with digital applications, the study exemplifies how traditional culture can be visualized using digital technology, enriching the means of cultural preservation and inheritance. It also provides practical experience for related fields and inspires researchers in other domains to explore the potential applications of digital technology in culture or other diverse fields. Although the study focuses only on the cultural context and visualization presentation of Mouth Flute and Nose Flute craftsmanship, future extensions could encompass modes such as transformation and reuse, creative value addition, diverse presentations, and even curation and dissemination, maximizing the cultural impact.

With the continuous advancement of technology, there is potential to explore further innovative digital applications in the research and dissemination of Mouth Flute and Nose Flute culture. For instance, utilizing Virtual Reality (VR) and Augmented Reality (AR) technology could create immersive experiences of Mouth Flute performances, allowing audiences to intuitively experience the charm of Mouth Flute culture. Moreover, leveraging social media and online platforms could expand the outreach of Mouth Flute culture to broader audiences, facilitating its dissemination and exchange.

In conclusion, future research could delve deeper into understanding Mouth Flute and Nose Flute craftsmanship culture, exploring its applications and values in various domains, and leveraging digital technology and innovative approaches to promote the preservation and inheritance of Mouth Flute culture.

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Contact email: kevin880830gg@gmail.com

Introduction, Establishment, and Transformation: An Initial Exploration of the Cultural Shifts and Influence of I-Kuan-Tao in Malaysian Chinese Community

Myra Lim Pey Huan, National ChengChi University, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Yi-Kuan-Tao has been developing in Malaysia for nearly 60 years. It was initially introduced from mainland China and later from Taiwan starting from the 1970s. Yi-Kuan-Tao was considered a 'new religion' for the local Chinese community in Malaysia in its early stages, as Chinese immigrants primarily practiced Taoism, Buddhism, Christianity, or Catholicism upon settling in the region. The overseas propagation and development of Yi-Kuan-Tao today primarily occur through Taiwanese temples, which began spreading abroad as early as 1949. Particularly since the 1970s, with the rapid economic growth of Taiwan, various branches of Taiwanese Yi-Kuan-Tao have gained economic strength to propagate abroad, further expanding the influence of Yi-Kuan-Tao overseas. Southeast Asia is the region out from Taiwan where the propagation and development of Yi-Kuan-Tao are fastest and most concentrated. With approximately over 6 million Chinese inhabitants, Malaysia's pursuit of traditional Chinese culture has led to a flourishing interest in Yi-Kuan-Tao, particularly its advocacy of the unity of Confucianism, Buddhism, and Taoism, with an emphasis on promoting Confucian thought. Moreover, Taiwan's rapid economic development since the 1970s has enabled Yi-Kuan-Tao to allocate significant human and financial resources for external propagation efforts. Additionally, Malaysia's government has adopted a relatively tolerant policy towards religion since that time, further fostering the flourishing development of Yi-Kuan-Tao in Malaysia. By examining the different origins and ethnic backgrounds, it investigates how the Malaysian Chinese community has experienced different changes through the cultural baptism of religion, thus delving into the religious influence of Yi-Kuan-Tao.

Keywords: I-Kuan-Tao, Fa Yi Chong De, Malaysia, Chinese, Culture, Transformation, Ethnicity

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Introduction

Research Background and Motivation

Malaysia is a country with a diverse coexistence of religions, with Islam being the official religion. Other religions practiced by Malaysians include Hinduism, Christianity, Buddhism, and indigenous religions. Malaysia primarily consists of three major ethnic groups: Malays, Chinese, and Indians. The annual celebrations of the New Year festivals of these three ethnic groups are designated as national public holidays, symbolizing the nation's cultural diversity.

Islam spread throughout Southeast Asia for a thousand years, from the 7th to the 17th century, leaving a profound influence on Malaysia. The Malaysian constitution stipulates that all Malays are Muslims, constituting 55% of the total population. Malays live according to Islamic teachings, adopting Arabic names, and mosques are prevalent throughout urban and rural Malaysia, with believers gathering for prayers daily, particularly on Fridays, which are considered the main prayer day for Malays.

Buddhism once flourished on the Malay Peninsula, and with the influx of Chinese immigrants in the 19th century, especially Mahayana Buddhism saw significant development. Kuala Lumpur and Penang are Buddhist centers in Malaysia, with the Malaysian Buddhist Association and the Malaysian Buddhist Institute established in Penang. Hinduism, also known as Brahmanism, witnessed a decline on the Malay Peninsula as Islam became dominant, with many Hindus converting to Islam during the 15th century. Today, only Indians in Malaysia adhere to Hinduism, which is characterized by a strict caste system.¹ Christianity was introduced to Malaysia with the colonial invasions by the Portuguese, Dutch, and British, each bringing different Christian denominations, including Catholicism and Protestantism. Christians in Malaysia comprise mainly Filipino immigrants, indigenous peoples, ethnic minorities, and some Chinese. Indigenous religions worship various deities and practice animism. However, nowadays, only some indigenous ethnic minorities still adhere to indigenous religions.

In the early stages, I-Kuan-Tao was considered a "new religion"² among the local Chinese community in Malaysia, as most Chinese immigrants from mainland China settled in

¹ The caste system (Hindi: *हनिदू वर्ण व्यवस्था*, English: Caste system in India), also known as the Indian caste system, is a social system that was prevalent in India and other parts of South Asia. Centered around the Brahmins, it divides society into numerous endogamous groups based on occupation, known as castes. These castes are further subdivided into many sub-castes based on regional differences, and within these sub-castes, there are further divisions based on settlement locations, ultimately leading to clans with different marriage practices. This hierarchical system is deeply integrated into Indian society, its social structure, worldview, religious practices, and interpersonal relationships. It is considered one of the most important traditional social systems and norms in India.

² The term "new religious movement" refers to religions that have emerged outside of traditional religious frameworks or have arisen under new historical conditions. It has specific usage in the West, known as "new religions," in Japan as "new religious organizations," and in Taiwan as "new religious groups." There are generally two main forms: one involves reforming doctrines and rituals within traditional religions and actively promoting them, while the other integrates various traditional religious concepts, undergoes new interpretations and transformations, and constructs a new religious form. Almost every era has seen the emergence of new religious movements, with their numbers being too numerous to quantify. However, they have had a certain influence on world religions and have gained a significant number of followers. Currently, Japan has over 700 new religious organizations, including Soka Gakkai, Rissho Kosei-kai, and Tenrikyo, each claiming over a million followers. Korea has Won Buddhism. In Taiwan, there are several new religious movements registered with the Ministry of the Interior, including I-Kuan-Tao, Tenrikyo, Tzu Chi Foundation, Xuanyuan Teaching, Baha'i Faith, and Tianti Church.

Southeast Asia with beliefs predominantly in Taoism, Buddhism, Christianity, or Catholicism. With nearly 60 years of development in Malaysia, Falun Dafa was initially introduced from mainland China and later from Taiwan since the 1970s. It primarily spread in areas with a large population of Malaysian Chinese, gradually integrating into the local cultural characteristics and developing a religious culture that incorporates local elements.

Although I-Kuan-Tao's propagation in Malaysia began earlier in East Malaysia, its flourishing development has predominantly occurred in West Malaysia to date. Moreover, it has expanded gradually towards Indonesia to the south and the southern region of Thailand to the north. In recent years, due to the migration of multinational workers to Malaysia, I-Kuan-Tao has started to spread to countries such as South India and Nepal. Hence, it is evident that Malaysia plays a crucial role in the global dissemination of I-Kuan-Tao.

Today, the dissemination and development of I-Kuan-Tao overseas primarily occur through practice centers in Taiwan. The overseas propagation began as early as 1949 and gained significant momentum, particularly after the 1970s, with Taiwan's rapid economic development. Various branches of I-Kuan-Tao in Taiwan have had the economic resources to propagate abroad, further expanding its influence overseas. Under the promotion of various branches of I-Kuan-Tao in Taiwan, significant milestones were achieved: the establishment of the Cambodian I-Kuan-Tao Association on September 4, 1995; the establishment of the I-Kuan-Tao World Association in Los Angeles, USA, on October 6, 1996; the establishment of the I-Kuan-Tao Association in Thailand on March 26, 2000; the establishment of the I-Kuan-Tao Association in Indonesia on June 21, 2000; the establishment of the I-Kuan-Tao Association in Malaysia on December 14, 2003; the establishment of the I-Kuan-Tao Association in the USA on April 29, 2006; the establishment of the I-Kuan-Tao Association in Japan on August 26, 2006; the establishment of the I-Kuan-Tao Association in Paraguay on April 29, 2007; the establishment of the I-Kuan-Tao Association in Austria on October 21, 2007; the establishment of the I-Kuan-Tao Association in the UK on November 1, 2007; the establishment of the I-Kuan-Tao Association in Australia on September 27, 2009; the establishment of the I-Kuan-Tao Association in South Africa on September 18, 2011; and the establishment of the I-Kuan-Tao Association in Brazil on September 25, 2011. It is reported that I-Kuan-Tao has spread rapidly to more than 80 countries and regions worldwide.

In Malaysia, the first I-Kuan-Tao practice center was established in 1948, and now there are over one million practitioners across East and West Malaysia. Numerous large temples and public Buddhist halls have been built, such as the Chong De Dao Yuan (崇德道院) in Alor Setar, the Tian Wei Tao Temple (天威佛堂) in Penang, the Zong Xin Tao Temple (宗心佛堂) in Ipoh, the Yu Hua Sheng Mu Gong (育化聖母宮) in Kuala Lumpur, the Confucius and Mencius Holy Tao Academy (孔孟聖道院), the Chong De Cultural and Educational Hall (崇德文教館), the Kang Le Book Academy (康樂書院), the Zhi Cheng Tao Temple (至誠佛堂) in Pahang, the Tian Xuan Tao Temple (天宣佛院) in Muar, and the Tian Li Tao Temple (天理佛堂) in Malacca. These magnificent structures, from north to south, have become new landmarks of religious significance in Malaysia.

The predecessors of various branches of I-Kuan-Tao have been cultivating in Malaysia for many years and have received recognition from the government authorities. Since the establishment of the association, directors and members from all 13 states of Malaysia have been continuously promoting lifelong learning, especially in moral and ethical education, and bringing Confucian thought into daily life, households, and society. On December 14, 2003, a

grand founding ceremony was held, attended by over 5,000 delegates from various countries, high-ranking officials, diplomatic envoys, and other distinguished guests. From then on, the Malaysian association has been actively promoting beneficial activities. For example, on November 7, 2004, a "Illuminate Hearts" anti-vice campaign was held, with over 1,300 representatives from various sectors of society, government agencies, and the police attending.

Southeast Asia is the region outside Taiwan where the dissemination and development of I-Kuan-Tao have been the fastest and most concentrated. I-Kuan-Tao's spread to Southeast Asia generally follows three different paths. The first path began in 1949 and subsequent years, originating from Yunnan and passing through the China-Myanmar and China-Thailand borders to spread into Myanmar, Thailand, and other areas. These branches include three major groups, Chun Yi Tan (純一壇), Chan De Tan (闡德壇), and Dao De Tan (道德壇), as well as smaller groups like Tong De Tan (同德壇), Hua Ji Tan (華基壇), Tian Du Tan (天渡壇), and Tian Yi Tan (天一壇), mainly distributed in countries such as Myanmar, Thailand, Laos, and Indonesia. The second path originates from Hong Kong, where early I-Kuan-Tao practitioners spread to Singapore, Malaysia, Thailand, and other areas, establishing some I-Kuan-Tao temples, but with limited subsequent development. The third path originates from Taiwan, where among the over 70 branches of I-Kuan-Tao, at least 30 have developed organizations and missionary activities in various Southeast Asian countries, each with its own unique development opportunities.

With Malaysia boasting a population of over 6 million ethnic Chinese, their pursuit of traditional Chinese culture has fostered a vibrant interest in I-Kuan-Tao, particularly in promoting the integration of Confucianism, Buddhism, and Taoism, with a predominant emphasis on Confucian ideals. Additionally, Taiwan's rapid economic development since the 1970s has encouraged I-Kuan-Tao to invest significant manpower and resources in overseas propagation. Concurrently, Malaysia's government adopted a more tolerant policy towards religion around this time, facilitating I-Kuan-Tao's highly successful missionary efforts in the country. Although missionary activities by various I-Kuan-Tao branches, such as Bao Guang Tan (寶光壇) and Changzhou Tan (常州壇), had begun as early as the 1940s and 1950s under the banner of the "Confucianism, Buddhism, and Taoism Moral Society" (儒釋道道德會), modern I-Kuan-Tao's flourishing in Malaysia can be traced back to the 1970s. Since then, over 24 branches from Taiwan, including Bao Guang Jian De (寶光建德), Fa Yi Chong De (發一崇德), Xing Yi (興毅), Ji Chu Tian Ji (基礎天基), Hao Ran Hao De (浩然浩德), Changzhou (常州), Fa Yi Ling Yin (發一靈隱), Fa Yi Tian Yuan (發一天元), Fa Yi Tian En (發一天恩), Qian Yi (乾一), Tian Xiang (天祥), Bao Guang Shao Xing (寶光紹興), Hao Ran Yu De (浩然育德), Bao Guang Ming Ben (寶光明本), Fa Yi De Hua (發一德化), Fa Yi Tian En Qun Ying (發一天恩群英), Ji Chu Zhong Shu (基礎忠恕), Fa Yi Hui Yin (發一慧音), Fa Yi Tong Yi (發一同義), Fa Yi Guang Yao (發一光耀), Wen Hua (文化), Bao Guang Chong Zheng (寶光崇正), Bao Guang Yuan De (寶光元德), and An Dong (安東), have successively ventured into Malaysia for development. Each branch has established temples across Malaysia, with many majestic I-Kuan-Tao temples towering from north to south on the Malaysian peninsula, spreading I-Kuan-Tao's teachings to all 13 states. Notable Malaysian government officials such as the Minister of Transport, Weng Shijie (翁詩杰), and the Minister of Health, Liao Zhonglai (廖中萊), are I-Kuan-Tao practitioners who actively support the various activities of I-Kuan-Tao in Malaysia.

In 2003, the "Malaysian I-Kuan-Tao Association" was established, with its headquarters located at the Chong De Tao Center in Kuala Lumpur. I-Kuan-Tao primarily recruits practitioners from the Chinese community but also includes many Indians. Respecting local Islamic laws prohibiting proselytization to Malays, I-Kuan-Tao refrains from missionary activities targeted at Malays but welcomes their participation in cultural and educational activities organized by I-Kuan-Tao organizations.

I-Kuan-Tao's missionary activities in other Southeast Asian countries such as the Philippines, Vietnam, Laos, Cambodia, Myanmar, Indonesia, Brunei, and East Timor each have their unique characteristics. I-Kuan-Tao's entry into Vietnam began in 1988, with various branches including Wen Hua (文化), Hao Ran Hao De (浩然浩德), and Fa Yi (發一) attempting to spread the teachings in Vietnam. However, due to Vietnam's restrictions on religion and activities involving foreigners, I-Kuan-Tao's missionary efforts in Vietnam "mostly remain at an initial stage." The situation in Laos is similar to that of Vietnam, with several branches including Fa Yi Chong De (發一崇德) entering Vientiane and other areas to establish temples for missionary work since the 1990s, but significant development has yet to be achieved. On the other hand, I-Kuan-Tao's development in Cambodia is relatively advantageous. Since its introduction from Taiwan in 1986, the Wen Hua branch has established dozens of temples in Cambodia, while the Bao Guang Yuan De branch has over 120 temples. Together with other branches, there are currently over 200 temples in Cambodia, with an estimated number of practitioners exceeding 100,000.

Growing up under the influence of the Fa Yi Chong De since childhood, I was exposed to the production of "Holy Revelations" texts for Fa Hui (Holy Seminar) from an early age. Even during secondary school, although attending the government secondary school, years of involvement in "Holy Revelations" production and training in traditional Chinese characters at the temple's document team awakened a latent awareness of Chinese culture. Hindered by limited opportunities to learn Mandarin in government secondary school³, with only three periods (90 minutes) of Mandarin classes per week, I am exposure to classical education at the temple, participation in the five-year Tao class, involvement in the production of "Holy Revelations" during Holy Seminar. Consequently, I was cherished the opportunity to learn Mandarin in secondary school even more. Therefore, starting from secondary school, I was resolved to uphold the three great vows of the Ji Gong Living Buddha⁴ as the motto and purpose of life cultivation.

An Initial Exploration of Cultural Changes of Fayi Chongde in Malaysia

Chapter 1: An Initial Exploration of the Cultural Changes of I-Kuan Tao in the Malaysian Chinese Community

Malaysian Chinese (or Malaysian Chinese descendants, referred to as Malaysian Chinese) refers to descendants of immigrants from provinces such as Fujian, Guangdong, Guangxi, and Hainan in China who migrated to Malaysia from the Ming and Qing dynasties to the Republic of China for several hundred years. Malaysian Chinese are the second-largest ethnic group in the country. According to the 2010 census, the total population is 6.96 million, accounting for approximately 21.9% of Malaysia's total population. They are mainly

³ The main language of instruction in Malaysia government secondary school is Malay.

⁴ Ji Gong Living Buddha is the appointed master of heavenly mandate in I-Kuan-Tao, and also the teacher of disciples.

distributed in major cities such as Kuala Lumpur (the capital), George Town (Penang State), Ipoh (Perak State), Johor Bahru (Johor State), Kuching (Sarawak State), Kota Kinabalu (Sabah State), and Malacca City (Malacca State). Additionally, Chinese Malaysians are the second-largest ethnic group in Kuala Lumpur, accounting for 43.2% of the total population (with Malays accounting for 44.2%).

The communication among Malaysian Chinese (or Malaysian Chinese descendants) is generally conducted in Mandarin Chinese or some Chinese dialects, such as Hokkien (divided into Penang Hokkien in the north, Kuala Lumpur Cantonese in the central region, and Johor Hokkien in the south). The younger generation who receive Chinese education mostly speak Mandarin Chinese, and Chinese language courses in schools use simplified Chinese characters. Malay (Bahasa Malaysia) and English are compulsory languages in Malaysia. In daily life, Malaysian Chinese use a more localized version of Malaysian Chinese, while in formal occasions (such as local Chinese media), a more formal standard Mandarin Chinese is used. Additionally, some Chinese Malaysians are educated in English and use English as their daily language. Furthermore, in a multicultural environment, the use of multiple languages is common, known locally as "rojak" or mixed language.

Malaysian Chinese generally classify themselves as Buddhists, but in reality, most of them also practice Chinese folk religion and Taoism. Additionally, local Chinese also have mixed indigenous beliefs, such as worshiping Datuk Gong. Around 11% of Malaysian Chinese are Christians or Catholics, but an extremely small number of people have been assimilated into Islam due to their belief in Islam. When Chinese immigrants first arrived in Malaysia, they mostly established private schools to educate the next generation. These schools mainly used textbooks such as the San Zi Jing (三字經), Qian Zi Wen (千字文), or the Four Books and Five Classics. After Malaysia's independence, the federal government adopted the 1955 Razak Report and the 1961 Rahman Talib Report to promulgate the 1961 Education Act, which greatly weakened the development of Chinese education, leading to significant backlash from the public. In order to uphold the right of Chinese people to receive Chinese education, the Malaysian Chinese Association and the United Chinese School Committees Association of Malaysia began promoting the revival of independent Chinese schools in 1977. Currently, there are more than 1,200 national-type Chinese primary schools ("SJKC"), over 60 independent secondary schools, and three private multi-lingual colleges in Malaysia.

However, I-Kuan Tao encompasses the entire traditional Chinese Confucianism. The temple is a good learning environment, and learning can change a person's quality and connotation. If a person is willing to learn, there will be a day when they become more mature. I-Kuan Tao will inevitably become a global belief in the foreseeable future. Wherever there are Chinese people, there are I-Kuan Tao temples. The number of believers is increasing, and there is an urgent need for teachers. I-Kuan Tao is a Chinese-style religious belief that embodies all of Chinese traditional Confucian thoughts. Chinese culture is fully revealed in I-Kuan Tao. Restoring Chinese traditional culture must start from the roots and exert educational power.

Chapter 2: Exploring the Predicament of the Chinese Community and the Religious Culture of I-Kuan Tao

In the previous chapter, we discussed the organizational and operational models of Fa Yi Chong De, which have been systematized and institutionalized in Taiwan. However, upon their introduction into Malaysia, these operational models encountered numerous challenges.

Although Chen Da Gu advocated for "local people managing local affairs" during her lifetime, it inevitably raises questions considering the differences in ethnicity, culture, and customs between Taiwan and Malaysia, as well as many other overseas countries.

Furthermore, we can explore several aspects:

1. Differences in the Five-Year Tao Studies Program: Due to the lack of qualified instructors overseas, some practitioners must deliver lectures even before becoming certified teachers. Additionally, due to inadequate training, the quality of instructors may be inferior compared to those in Taiwan. Moreover, the curriculum design of the Five-Year Tao Studies Program may not keep pace with societal changes, leading many new practitioners to lose interest in attending classes.
2. Asynchrony in the Unity of the Three Realms: Overseas branches often lack certain features found in Taiwan due to cultural differences. For instance, there may be no high school classes or as frequent meal gatherings as in Taiwan, reflecting geographical factors to some extent.
3. Challenges in Absorbing the Classics: Overseas practitioners may not possess the same level of proficiency in Chinese as those in Taiwan, requiring more time to digest and comprehend classical texts.
4. Variances in the Ten-Group Operational Model: The structure of the ten operational groups may differ between domestic and overseas branches, with most overseas branches having fewer operational groups, typically ranging from six to eight.
5. Rigidity in the Temple System: Some senior practitioners with traditional mindsets may find themselves constrained by the institutionalization of the temple system, lacking flexibility in their actions. This is a common challenge faced by religions as they become more systematized.
6. Manifestation and Non-Manifestation: Chen Da Gu began advocating for the cessation of spirit possession during her lifetime. Previously, every Holy Sermon assembly would witness the manifestation of Holy Medium, where Holy Medium would temporarily inhabit the bodies of practitioners to provide guidance. However, as the Holy Medium landscape evolved, Chen Da Gu encouraged practitioners to cultivate reason and cease relying on Holy Medium possession for guidance. This shift in approach aims to discourage supernatural beliefs and focus on rationality and self-cultivation.

However, understanding I-Kuan Tao requires examining it from two perspectives: the sacred and the secular. Looking at it from the sacred perspective helps to grasp the essence of religious beliefs. However, viewing it solely from the secular perspective might be akin to observing a watermelon from the outside, noticing its roundness, oval shape, or angularity without knowing the color and depth of its flesh inside, let alone tasting it. Although I-Kuan Tao in China is said to have originated from Wang Jueyi and was named by Liu Qingxu, its religious essence existed as early as the Song and Ming dynasties. So why does the lineage of I-Kuan Tao need to connect with the Sixth Patriarch of Zen Buddhism's six ancestors, establish a linkage from the Eastern 18 Patriarch to the Western 28 Patriarch, and then to the Eastern former 18 Patriarch. This seemingly disjointed chronology actually serves to maintain the sacredness of the lineage because Tao is the creation of heaven and earth, existing since ancient times.

The main deity worshipped in I-Kuan Tao, Ming Ming Shang Di (Heavenly Mater), is believed to be the true creator of heaven, earth, the three realms, the ten directions, and all souls. Therefore, I-Kuan Tao's lineage in Taiwan gains its sacredness by inheriting from

China, and one could say that I-Kuan Tao in Taiwan originated from China. However, the religious rituals themselves are not entirely inherited from China, so it cannot be said to originate from China. It adapts to social changes and constantly evolves with the changing society, perhaps for survival and growth, or to become more secular. Under the spiritual legacy left by Chen Da Gu in Taiwan, Fa Yi Chong De is no longer the same as the I-Kuan Tao passed down in China. Whether it is in terms of the content of beliefs and thoughts or the external forms of ritual operations, there have been reforms. If one were to trace its origins, one would only see the simplest, most primitive, and closest to the essence of I-Kuan Tao

Conclusion

In summary, the development of the Fa Yi Chung De Tao temple in Malaysia, from its initial stages to its expansion into a global Tao institution, should serve as a historical mirror for the establishment of new temples. Lessons should be learned from past conflicts, such as the distinction between "Tao" and "religion," which can lead to religious opposition. Believers should be allowed to experience and comprehend these differences. Emphasis on the value and function of "innate" beliefs should prioritize holy medium elevation over faith-based value systems. Avoiding the practice of "borrowing celestial holy medium" for divine revelation and focusing on textual study and interpretation are recommended. Additionally, the importance of reading and understanding scriptures should not be overshadowed by the belief that "reading thousands of classics is not as good as a clear master." Before becoming a global religion, emphasis should be placed on the completeness and integrity of scriptures, doctrines, rituals, organizations, and institutions, as well as the openness of information, to facilitate better understanding of Tao.

Finally, rather than adhering to the concept of "doing good deeds without seeking recognition," it is suggested to encourage acts of kindness through processes of recognition and to promote the religious belief of "persuading people to do good." The purpose of Tao is rooted in the ideal of "saving the world," lamenting the societal ills, the decline of conscience, and the degradation of human nature, leading to natural disasters and man-made calamities. Inspired by the Confucian ideal of "self-cultivation, family harmony, state governance, and world peace," Tao aims to be a guiding force for societal improvement and harmony, drawing from traditional Chinese cultural heritage and promoting Confucian ideals. Despite the challenges, the transmission of religion inevitably undergoes changes and adaptations to local cultures and characteristics, resulting in the loss of original cultural elements. However, regardless of the religion, innovation and reinvention are necessary. As researchers, it is essential to analyze objectively the benefits and drawbacks that religions face after undergoing cultural transformations. Tao, after enduring numerous hardships and sacrifices from predecessors, is finally gaining recognition and respect in society.

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Film Production: An Effort to Create Learning Resources of News Literacy for Indonesian Students

Andini Nur Bahri, Universitas Islam Negeri Sumatera Utara, Indonesia
Hasan Sazali, Universitas Islam Negeri Sumatera Utara, Indonesia
Elfi Yanti Ritonga, Universitas Islam Negeri Sumatera Utara, Indonesia
Irma Yusriani Simamora, Universitas Islam Negeri Sumatera Utara, Indonesia
Muhammad Rizky Ananda, Universitas Islam Negeri Sumatera Utara, Indonesia

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This study aims to create a short film as a news literacy learning media for high school students in Indonesia. The research methodology is Research and Development (R&D), using the ADDIE model. The data analysis methods used in this research are descriptive qualitative analysis and quantitative descriptive analysis. This film was tested on 100 high school students, with results showing that 59% of respondents strongly agree that the film successfully achieves its goal as a news literacy learning tool, and 41% of respondents agree with this achievement. The study showed the validation score by the media expert is 75.6%, indicating that the film is of very good quality. The review result by the material expert obtained 87.84%, which was also qualified as very good quality. The teacher's assessment was 82.81%, and the evaluation from the student's assessment gained 80.24%, both qualified as very good qualifications. Based on the review results by experts as well as the product assessment results, it can be concluded that the film is highly eligible to be used as a learning media for news literacy. This short film can be used as a learning resource in the class for the subject of Civic Education or any training to develop students' news literacy skill.

Keywords: Film Production, Learning Resources, News Literacy, Indonesian Students

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Introduction

The advancement of digital technology and social media has significantly changed the way news is produced, distributed, and consumed. The increased presence of social media has enabled users to instantly share news within their social networks (Bhagat & Kim, 2023; Wischniewski et al., 2021). Consequently, understanding, and evaluating, and interacting with news has become crucial for society. In this situation, everyone must have good skills in consuming news, which experts refer to as news literacy.

News literacy is the ability to think critically and the ability to determine the credibility of news and other content, determine what to trust, share and act on News Literacy Project, 2021.

The importance of news literacy for the young generation has been proven by several studies. The results of a study on 500 teenagers in America showed that news and media-literate teenagers engaged in mindful thought processes (Maksl et al., 2015). According to the Knight Foundation, the best way to improve news literacy is through schools and by taking pedagogical strategy seriously (Reese, 2019). Previous research indicated that the level of news literacy among high school students in Indonesia is only 13,71% in the good category. News literacy education is still delivered by journalists to specific audiences, such as university students in seminars or webinars on journalism. One of the approaches that can be implemented in teaching news literacy is developing alternative sources (Panagiotou & Theodosiadou, 2014).

Film has long been used as a medium for learning and teaching. Many studies have shown the positive influence and effectiveness of films, including enabling students to make connections between theory and real-life situations. When using films in the social studies classroom, instructional goals like reasoning, critical thinking, retention and understanding, self-regulation, and refraction of the curriculum are developed (Driscoll, 2005). One of the advantages of using films is that visual images stimulate students' perceptions directly, while written words can do this indirectly (Liando et al., 2018). Films help students gain in-depth knowledge, develop critical interpretation skills, and engage actively in their studies (von Morzé, 2008). Films are more of a sensory experience than reading; besides verbal language, there is also color, movement, and sound (Xhemaili, 2013). Films can promote social thinking and awareness of social perspectives (Marcus, 2005).

Based on our preliminary observation, we found that film is rarely used as a learning medium in Indonesia and that intentionally designed or created films are very limited for students to support the learning process. We also interviewed students regarding the use of the films as a learning resource, and the students expressed their agreement and excitement.

Based on that, researchers assumed film could be an alternative learning resource for news literacy. Therefore, this research aims to produce a film as an educational product to support Indonesian students in gaining a better understanding and improving their news literacy.

Methods

This research is a type of research and development (R&D). Research and Development is a method used to develop and test future products developed in the world of education. There are various research models which can be used as a reference in this research and

development (Amali et al., 2019). The research model that used in creating film as learning media is ADIIE model. There are several stages in ADDIE model, such as: Analyze, Design, Develop, Implementation and Evaluation.

Finding and Discussion

The first stage is to analyze the news literacy learning materials. The researcher found that there is no specific instruction on news literacy taught across all subjects in school. Students only learn how to write news articles in Indonesian language classes. Therefore, we referred to news literacy materials from various international sources, such as those from the News Literacy Center and the News Literacy Project in the United States and Europe.

The second stage is design. Then researchers selected and identified key issues related to news literacy in Indonesia. The researchers found that the spread of fake news was the most significant theme as it affects various segments of the population. Data from the Ministry of Information in Indonesia also indicated the existence of 800,000 hoax websites in the country.

After gathering news literacy materials, the researchers concluded that four learning objectives need to be covered by the film. The first learning objective is understanding the dangers and prevention of misinformation, the second is motivation to always fact-check news, the third is critical and cautious before spreading news, and the fourth is having discussion about questionable news.

Subsequently, the researchers attempted to develop story ideas that resonate with the age and characteristics of high school students, as well as themes that are generally popular among teenagers, the individuals who will be involved in the film's production. At this point, the collaboration with various parties have been secured to produce this film, including a production house that will assist in the film's production and the News Literacy Id Institute for script development. Additionally, our university is fully sponsoring this film. The students are assigned roles such as director, assistant director, scriptwriter, actors, and editors. Furthermore, Focus Group Discussions were conducted with professional filmmakers who guided researchers on how to produce a film that evokes emotions and leaves a lasting impression on the audience. We also received feedback on the steps needed for the film production, from storyboarding to editing.

The third stage is developed. In this phase, we are engaged in the stages of filmmaking, namely pre-production, production, and post-production. During the pre-production phase, our team, News Literacy ID, prepared the script. The team consisted of two students as scriptwriters, one director, one assistant director, eleven actors, one wardrobe and makeup artist, and two editors. This phase also included the selection of cast members and shooting locations. The filming locations were at the university and one of the students' houses, taking a total of four days.

Once the film was completed and edited, we conducted validations with material and media experts. Based on their feedback, we included pop-up screenshots to support and clarify the news literacy content, such as the hoax about President Jokowi visiting an artist in the hospital, and highlighted the use of the tool Cekfakta.com to enhance news literacy. We also revised the level of color grading to make it brighter.

The fourth stage is implementation. In this stage, a test involving 100 high school students was conducted, where the researcher organized a group viewing session along with two teachers. During the film screening, every student was ensured could see and hear the audio of the film clearly.

The last stage is evaluation. A questionnaire was distributed to gather students' perceptions of the film and analyzed the responses using a quantitative percentage method. Additionally, one-on-one interviews were conducted with three students of varying class rankings: top-ranked, middle-ranked, and bottom-ranked. The interview results indicated that all students found the film engaging and effective in achieving its goal as a news literacy learning tool. They reported feeling motivated to be more cautious and wiser in trusting and disseminating news. One student expressed motivation to discuss questionable news. Regarding the film as a learning medium, one student mentioned it was excellent because it prevented boredom, while another student found the storyline interesting but felt the film's duration was too long.

Table 1. Validators

Subject	Expert of
Material Experts	1. Head of Media Advocacy and Regulation Department of Indonesian Association of Cyber Media
	2. Founder of Newsliteracy.Id
	3. Coordinator of Cekfakta.com
Media Experts	1. Assistant Producer of DAAI TV
	2. Director of Rhayaflicks (Film Company)
Students	1. One to One (3 students)
	2. Small group (100 students)
Teachers	1. Civic education teachers of North Sumatra Province
	2. Civic education teachers of West Nusa Tenggara Province

Source: primary data.

Here are the evaluation results from the students and validations from media and content experts.

Table 2. The material experts' validation

No	Aspect	Number of items	Total Score	Max. Score	%	Criteria
1	Usability	3	32	36	88.89	Eligible
2	Learning Objectives	3	18	36	83.33	Eligible
3	Technical Quality	2	14	24	87.50	Eligible
4	Benefits	1	7	12	91.68	Eligible
Total		9	94	108	87.84	Eligible

Source: primary data

The Table 2. explains that the assessment of material experts was reviewed by 4 aspects of the assessment: the usability, learning objectives, technical quality and benefits. The results from the table are as follows: the usability aspect is 88,89%, the learning objective is 83,33 %, the technical quality is 87,50.3%, and benefit aspect is 91,68% and the total percentage is 87.84%. This means that media experts recommend that the developed product can be used by students during the learning process.

Table 3. The media expert's validation

No	Aspect	Number of items	Total Score	Max. Score	%	Criteria
1	Media	3	18	24	75	Eligible
2	Learning Design	8	50	64	78.13	Eligible
Total		11	68	88	76.56	Eligible

Source: primary data.

The result is shown in Table 3. The assessment of the material expert was reviewed in 2 aspects of the assessment, namely media, and learning design. The results obtained from the table are as follows: for the media aspect, the percentage is 75%, the learning design aspect is 805, with a total percentage of 76,56%.

Table 4. Students assessment

No	Aspek	Number of items	Total Score	Max. Score	%	Criteria
1	Learning Objectives	8	2653	3200	82.91	Eligible
2	Benefits	3	931	1200	77.58	Eligible
Total		11	3584	4400	80.24	Eligible

Source: primary data.

Table 4. explains that the assessment of students who responded to 2 aspects, namely learning objectives, and benefit. From these aspects, the resulting table shows that student responses to an aspect of learning objectives of 82.91%, for the benefits aspect a percentage of 77.58%, with a total aspect of 80.24%.

In terms of understanding the dangers and prevention of misinformation, the film also received a strong agreement response from 44% of respondents, and 54% of respondents agreed. Furthermore, 64% of respondents agreed, and 31% strongly agreed that the film provides motivation to always fact-check news, especially in the context of online media. Additionally, 42% of respondents agreed, and 47% strongly agreed that the film motivates them to be cautious before spreading the news.

The validation and assessment of the film as a learning medium for news literacy among senior high school students were evaluated by experts based on various criteria, including usability, learning objectives, technical quality, and benefits. The assessment was conducted through user testing, and the percentages are as follows.

Table 5. Percentage Validation and Assessment Result

No	Subject testing	Validity result	Percentage qualification
1	Material Experts	87.84%	very good
2	Media Experts	75.56%	very good
3	Students	80.24%	very good
4	Teachers	82.81%	very good

Source: primary data

Based on the result of film as learning media of news literacy for high school students' validity, it was found that Material Experts had an 87,84% score and it qualified as very good, Media Experts had a 75,76% score and it qualified as very good, Student testing has

80,24% score and it qualified as very good, and Teachers testing has 82,81% score and it qualified as very good. It can be concluded that learning is eligible to be used as a learning media of news literacy for senior high school students.

Conclusion

This study is a development study that implements ADDIE model (Analyze, Design, Development, Implementation, Evaluation). Based on the results of assessment by experts and the students, it can be concluded that film as a learning media of news literacy for senior high school students is “eligible” to be used as learning media.

Acknowledgments

The authors wish to thank the Faculty of Da’wah and Communication of Universitas Islam Negeri Sumatera Utara for the financial support of this work. We would also like to extend gratitude to Indonesian Research Literacy (Literasi Riset Indonesia) for the academic support.

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Contact email: andininurbahri@uinsu.ac.id

***A Study on the Experiential Learning Process Design of the Exploration Box of
Traditional Chinese Medicinal Herbs for Augmented Reality***

Zi-Ying Wu, National Yunlin University of Science and Technology, Taiwan
Wen-Shan Chang, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In 2015, the United Nations adopted 17 Sustainable Development Goals, or SDGs, the fourth of which is "Ensure inclusive and equitable quality education and promote lifelong learning opportunities," a goal that aims to ensure that everyone has access to an equitable, diverse, and high-quality education. Lifelong learning is closely related to self-directed learning, and learners must use the tools for self-directed learning in order to truly realize lifelong learning. In the Information Age, where cell phones and tablets are becoming more and more popular, the age at which children are exposed to smart products is decreasing year by year. However, most of the time children spend using smart products is mostly for entertainment, and rarely for learning. Traditional Chinese herbs have been used for thousands of years and are often used for therapeutic purposes in many regions, so this study aims to increase children's understanding of traditional Chinese herbal medicine. This study aims to introduce Chinese herbal medicine to children through augmented reality presentations on tablet PCs, in order to expand children's knowledge of tablet devices beyond entertainment. The learning process design of the traditional Chinese herbal medicine exploration box for augmented reality independent learning was carried out by using the Focus Group Interviewing method to understand the needs of the augmented reality Chinese herbal medicine independent learning exploration box, and the learning process diagram was completed by the participatory design method.

Keywords: Self Directed Learning, Learning Portfolio, Augmented Reality

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Introduction

In 2015, the United Nations proposed the Sustainable Development Goals, with the fourth goal emphasizing the need to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. This goal calls for the creation of an environment where everyone, at different stages of life, can obtain high-quality education through various means. In this vision, self-directed learning plays a critical role, and learners need to leverage various tools and resources to truly achieve the goal of lifelong learning.

In recent years, with the rapid development of technology, smartphones and tablets have become indispensable parts of people's lives, and the age at which children are exposed to these smart products has been decreasing year by year. However, current observations show that children mostly use these devices for entertainment rather than learning. To reverse this trend and in response to the Taiwanese government's policy of "Internet in every classroom, tablets for every student," this research aims to explore how tablets can become effective tools for promoting self-directed learning.

Traditional Chinese medicine (TCM), as a cultural treasure, has a history spanning thousands of years and is widely used in healthcare and dietary therapy in many regions. However, modern children have relatively limited knowledge about TCM. Therefore, this study aims to develop a self-directed learning exploration box for TCM using augmented reality (AR) technology on tablets. This will allow children to learn about the types, properties, and uses of TCM through interactive games, thereby expanding their understanding of tablet devices beyond mere entertainment functions.

Technology-Enhanced Learning

Technology Enhanced Learning Environments (TELEs) refer to any settings that use technological tools or applications to facilitate learning, whether they are physical classrooms, virtual spaces, or hybrid models combining both. These environments aim to enhance learning engagement, provide personalized experiences, promote collaborative interaction, offer real-time feedback, and expand learning opportunities (Persico & Steffens, 2017). The "Internet in every classroom, tablets for every student" policy is an educational initiative launched by the government of the Republic of China (Taiwan) in 2021, aimed at bridging the digital education gap between urban and rural areas and enhancing students' digital technology application skills. This policy plans to fully subsidize the installation of wireless networks in elementary and secondary schools nationwide within four years and provide one tablet per student in remote areas. Information technology, especially computers, the internet, and various human-computer interfaces, has become an indispensable part of human life, learning, and interaction. It not only provides channels for information acquisition and communication but also drives innovative transformations in education, work, and recreational activities (Vicente & Lopez, 2010).

Self-Directed Learning

With the advancement of technology and the rapid dissemination of information on the internet, learners have access to a vast source of knowledge. Therefore, learners need to develop self-directed and self-regulated learning abilities to responsibly manage their own learning processes. When learners can effectively take charge of their own learning, it

enhances their motivation and engagement, while also fostering critical thinking and problem-solving skills (Swollet, 2023). According to an article by the University of the People (2023), self-directed learning offers numerous benefits, including promoting student autonomy, systematic skill enhancement, supporting interests, and strengthening collaboration. These advantages help students build a personalized learning foundation through various learning methods.

Everyone can potentially benefit from the ability to learn autonomously, but social and individual factors may influence the feasibility of implementing self-directed learning. In today's rapidly changing world, self-directed learning has become one of the important goals of education. Self-directed learners can think independently, critically evaluate information, and solve problems. They take responsibility for their own learning and set their own learning goals (Zimmerman, 2000). Self-directed learning is an approach to education and learning where learners themselves establish and implement their personal education plans. Compared to other educational theories, self-directed learners believe that self-directed learning involves making choices for themselves and being accountable for those choices (Holec, 1996).

Experiential Learning Process

Experiential learning is a learning theory that emphasizes the importance of personal experience and reflection. Self-directed learning occurs through active participation and reflection on experiences. Experiential learning differs from traditional teaching methods, which typically involve teacher-led instruction and passive knowledge reception by students (Kolb, 1984). Experiential learning can be implemented in various ways, such as role-playing, field trips, case studies, and simulations. In role-playing, students are required to assume specific roles and interact within hypothetical scenarios (Smith, 2001). Experiential learning has been proven effective for students of all ages and learning backgrounds. It can enhance student engagement, motivation, and retention (Kolb, 1984). Additionally, it helps students develop critical thinking, problem-solving, and communication skills (Smith, 2001).

Method

The main objective of this study is to develop an experiential learning process using an augmented reality exploration box for Traditional Chinese Medicine (TCM). Therefore, the research process is divided into three stages. The first stage involves a literature review to thoroughly investigate related studies on Technology Enhanced Learning (TEL), self-directed learning, and experiential learning concepts, providing a solid theoretical foundation for subsequent empirical research.

The second stage focuses on analyzing the needs and principles for the augmented reality TCM exploration box. This involves conducting focus group discussions with teachers, experts, and managers of the sites where the exploration boxes will be placed. The purpose is to collect the needs and suggestions of educators regarding the design and implementation of the self-directed learning exploration box. Following this, a needs analysis will be conducted, and a participatory design approach will be used to complete the learning process map.

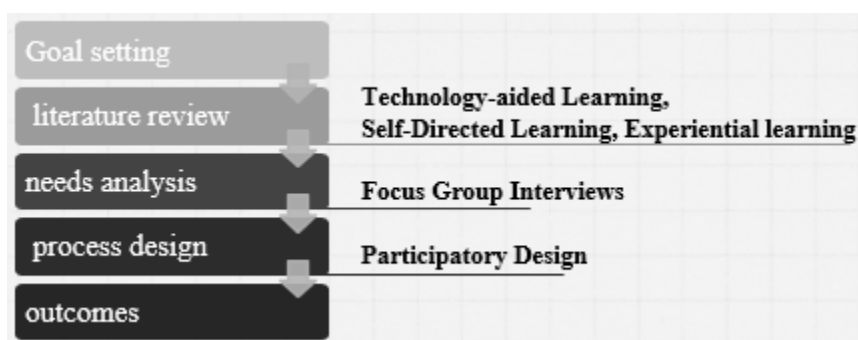


Figure 1: Conceptual Framework

Method 1: Focus Group Method

The focus group method is a qualitative research approach where a moderator guides a group of participants with common characteristics to discuss a specific topic in-depth, gathering their views, opinions, and attitudes. This method was first introduced by sociologist Robert K. Merton in the 1940s and is now widely used in market research, product development, educational research, social sciences, and other fields.

In this study, the focus group method is used to revise and adjust the "Exploration Box Self-Directed Learning AR Script Process and Content Diagram" and to further explore the future production guidelines for the exploration box. The research team will invite experts and educators from the fields of botany, science education, traditional Chinese medicine (TCM) education, and curation for interviews. These interviews will delve into the experience process, experiential objects, construction suggestions, and AR setup opinions for the exploration box, aiming to effectively enhance its application value. Through in-depth interviews with experts, the research team expects to gather valuable feedback to refine and optimize the design and content of the exploration box, ensuring it meets actual teaching needs and effectively promotes student learning outcomes.

During the focus group interviews for drafting the AR self-directed learning experience process script, the study focuses on the experiential process of the self-directed learning exploration box. Experts from botany, science education, TCM education, and curation are invited to use the TCM self-directed learning exploration box AR self-directed learning experience process script for focus group discussions, collecting AR setup opinions to effectively enhance the exploration box's application value.

Based on preliminary analysis data, the exploration box content is analyzed in three tiers. The first tier includes a self-exploration passport and user manual placed in a binder pocket. The first tier contains medicinal materials such as hawthorn, dried papaya, almonds, lotus seeds, ginger, longan, and TCM AR cards. The third tier covers acupuncture and massage, including a meridian model, magnifying glass, AR acupoint answer cards, display needles, meridian vest, meridian gloves, and AR acupoint answer cards. Through the exploration box, learners will gain rich knowledge of TCM and develop an interest in traditional culture. Based on the aforementioned analysis, an AR self-directed learning script process is created and used as the focus of the focus group interviews.

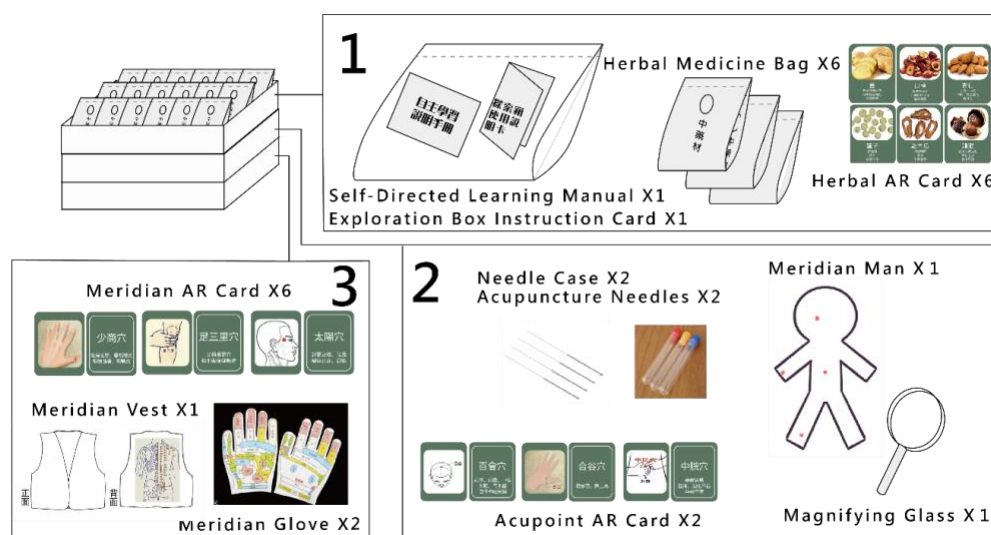


Figure 2: Inventory of Contents Before Revision of the Exploration Box

The focus group interview comprised 5 participants, including 4 males and 1 female, all meeting criteria such as having engaged in service-learning, botanical studies, and self-directed learning for over a year. Prior to the interview, this study consulted the participants regarding their relevant experiences and backgrounds to ensure they could provide valuable insights.

The experience was divided into three stages: pre-experience, mid-experience, and post-experience. The pre-experience stage involved the process of renting the exploration box and scanning to activate the exploration; the mid-experience stage focused on exploring the distribution and appearance of medicinal materials; and the post-experience stage included completing learning worksheets, guided tidying up, and returning the box. During this phase, we emphasized the smoothness of the process, the user-friendliness of the interface, and the content design of the learning units to ensure that the entire experience closely met the needs of the learners.

Table 1: List of Focus Group Participants

Member	Interviewee's Field	Experience Description
Mr. Xu	Digital archiving, smart learning	More than 10 years of work in education related to digital archiving and smart learning.
Ms. Yeung	Anthropology, design and culture	More than 10 years of research on cross-cultural performances in anthropology, design and culture.
Mr. Lee	Science education	More than 2 years of work on education projects and educational experience design.
Mr. Liao	Plant and animal research	More than 2 years of work in plant garden plant cultivation, and has published three popular science books.
Mr. Kwok	Chinese medicine base identification and Chinese medicinal materials	More than 10 years of education in Chinese medicine base identification and Chinese medicinal materials.

Table 2: Focus Group Interview Outline

Phase	Step	Interview Questions
Pre-Experience	Start scanning to explore	Were there any problems or questions you encountered when you started scanning to enter learning?
Mid-Experience	Scan and answer questions	What problems or improvements do you have for the scanning and answering process?
Post-Experience	Answer questions	Did you encounter any difficulties or problems during the learning process in the third unit?
Post-Experience Overall		Did you encounter any difficulties after learning?

Approach 2: Participatory Design

Participatory Design (PD) is a design methodology aimed at actively involving users in the design process to ensure that the design outcomes meet their needs and are usable. Participatory Design is an approach focused on the design process and procedures rather than a design style. Based on the feedback collected through focus group discussions, this study conducts research on the design of the experiential learning process for the Traditional Chinese Medicine (TCM) exploration box for self-directed learning with augmented reality.

In this phase, Participatory Design methodology is employed to design the experiential learning process for the "Augmented Reality TCM Exploration Box." Building upon the integrated needs analysis and functional planning from the preliminary stage, the Participatory Design method is utilized to create the "Experiential Learning Process."

Results

Based on the analysis of focus group interview scripts, a new script process was derived after revision, and a customer journey map was created using the process to be further refined through participatory design. Through discussions, three layers of items were determined. The expected contents of the first layer include maps and signage necessary for exploration, aimed at guiding learners to understand the sources and distribution of medicinal materials while presenting relevant basic knowledge of Traditional Chinese Medicine, enabling them to gain deeper learning experiences during the exploration. The second layer presupposes three types of herbal packs, namely foot bath herbal packs, mosquito repellent incense packs, and sour plum soup packs, containing uncombined medicinal materials. The design intention is for learners to perceive the unique characteristics and effects of each herb through actual touch, thereby expanding their understanding of herbs. The third layer presupposes the tools required for combining the herbal packs, including a Chinese medicine scale, magnifying glass, and others.

Table 3: Summary of Focus Group Interview Results

Phase	Expert Feedback
Pre-experience	<ol style="list-style-type: none"> 1. The content of the case is too long, it is recommended to reduce it, the learner's attention will not be enough. 2. The process of getting sick needs to be added, such as suggesting to see a Chinese medicine doctor when sick. 3. The medicinal properties of traditional Chinese medicine have multiple therapeutic effects and side effects, etc., and precautions should be added to the process.
Mid-experience	<ol style="list-style-type: none"> 1. Experts pointed out that professional actions such as acupuncture require a Chinese medicine practitioner's license to perform, so the process direction needs to be modified. 2. It is necessary to understand the Medical Practitioners Act and the Medical Practitioners License, and put it forward in the AR screen, so that learners can understand the importance of laws and regulations. 3. The meridians need to be discussed with the Chinese medicine doctor, and the meridians may be asked whether they can be purchased. If they cannot be purchased, they need to be removed from the process.
Late experience	<ol style="list-style-type: none"> 1. Since the learners are in the upper grades of elementary school, needles are easily used for fun, so it is recommended to put the needles in the needle tube seal. If the script is not modified, it is easier to understand by taking pictures. 2. It is suggested that the temples can be introduced, which are used to protect the eyes, etc. It is necessary to think about the traditional Chinese medicine that learners are exposed to in daily life and modify the process. 3. It is suggested that the script process start with diet, diet therapy, and traditional Chinese medicine, which is more in line with life.
After the experience	<ol style="list-style-type: none"> 1. It is suggested to add a cleaning step in the process to help learners understand the principle of returning objects, and also to help the rental personnel do not need to clean up again.

Based on feedback from focus group interviews and experts, this study has identified several areas that require modification. In order to ensure the accuracy of medicinal herbs and prevent misleading learners, it is essential to verify the accuracy of the provided herbal images and information. This information will be used in Augmented Reality (AR) technology, with safety precautions embedded into the AR system to enhance the safety and effectiveness of learning. Secondly, concerning acupuncture, it must be clarified that acupuncture is a professional practice requiring a license to perform. Therefore, equipment that cannot be used or requires a license to operate should be excluded from the process design. This not only streamlines the learning process but also ensures that learners operate within legal and safe boundaries. Regarding the selection of medicinal herbs, emphasis should be placed on choosing common and safe herbs, with attention to their safety issues in application to protect learners' health. Finally, for props that are difficult to use, instructional videos can be created to help learners better understand and master their usage through visualization. In summary, these modifications aim to enhance learning effectiveness and safety, ensuring that the educational content provided is both accurate and practical, thereby promoting the popularization and development of the study of Traditional Chinese Medicine herbs and acupuncture.

- (1) Ensure the accuracy of provided herbal image information, which can prevent misleading learners in AR, and embed herbal safety precautions in AR.
- (2) Modify the process to shorten it, removing equipment that cannot be used or requires a license.
- (3) For props that are difficult to use, we can create videos to introduce them.

After revising the content according to the focus group method, the three layers of contents in the exploration box are as follows: the first layer is the exploration layer, including "Chinese Medicinal Herb Book" and "Chinese Medicinal Herb Exploration Map." The second layer is the scent layer, containing containers of Chinese medicinal herb scents. The third layer is the measurement layer, including traditional herb scales, herb bags, and storage trays.

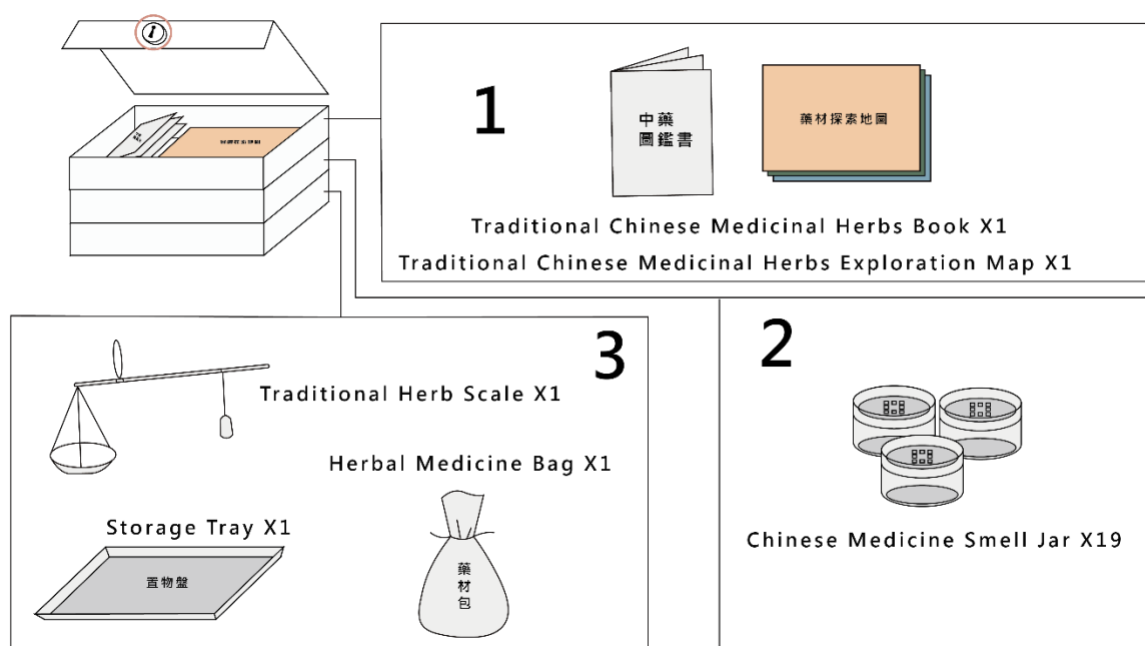


Figure 3: Three-layer Content List of the Revised Exploration Box

Users follow AR instructions on a tablet. They first select an herbal combination pack and then open the first layer. In the first layer, users need to consult the Herbal Encyclopedia to identify the herbs required for the unit and observe the distribution of these herbs on the map.

Moving to the second layer, users scan the herbal jars based on the Herbal Encyclopedia. After scanning, the tablet will play a video introducing the herbs. Users can watch the video and answer questions. After completing the second layer, users must return the used props to their original positions before entering the third layer.

The third layer plays a tutorial video on using the scale. AR guides users on how to use the scale correctly and answer questions. This completes the exploration box experience. Users can choose different herbal combination packages for the experience.

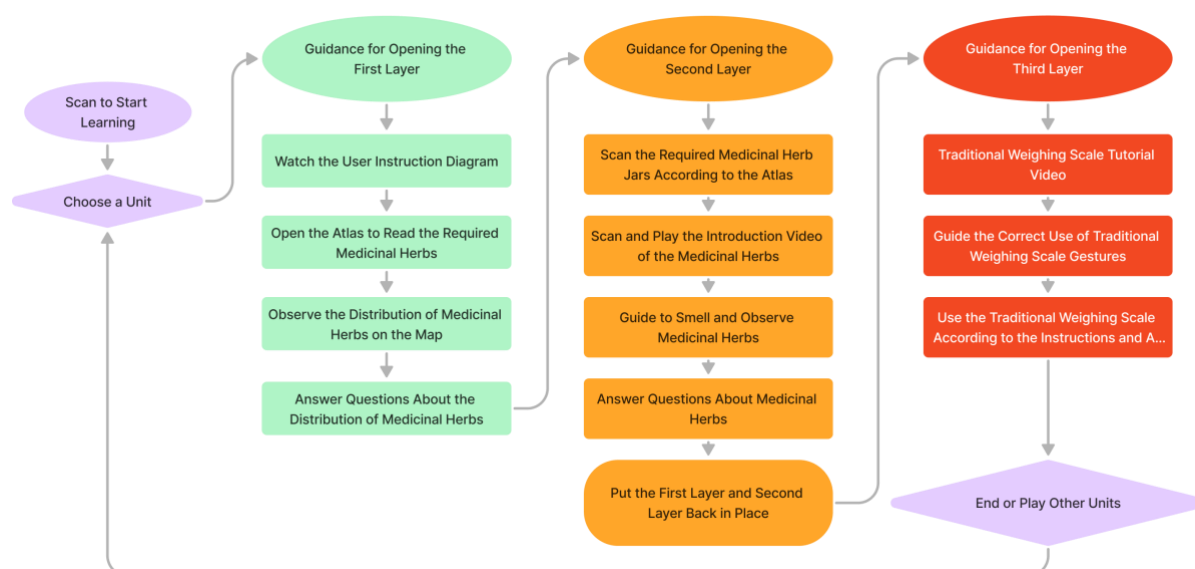


Figure 4: Flowchart of Experiential Learning Process in Augmented Reality Chinese Medicine Exploration Box

Conclusion

This study explores the application of augmented reality (AR) assisted teaching in the Traditional Chinese Medicine exploration box and designs an augmented reality self-directed learning process. The results indicate that AR-assisted teaching effectively facilitates the learning process, enhances students' motivation, learning outcomes, and satisfaction. An augmented reality self-directed learning process tailored for the Traditional Chinese Medicine exploration box was developed and integrated into the exploration box. The findings demonstrate that the augmented reality self-directed learning process significantly enhances students' motivation, learning outcomes, and satisfaction.

Future research directions should focus on continuous improvement and optimization of the augmented reality self-directed learning process. Additionally, providing richer and more effective self-learning experiences through augmented reality is an important direction for future research. This not only enhances learners' experiences but also provides examples and evidence for further exploration, leading to significant advancements in the fields of education and training. Furthermore, this study can further evaluate long-term effects and improve the design of AR Traditional Chinese Medicine self-directed learning exploration boxes.

Acknowledgments

I extend my heartfelt gratitude to all who supported me in my thesis journey. Prof. Wen Shan's guidance was pivotal, shaping me into an independent researcher. My family's unwavering support and wisdom were my pillars. Special thanks to Mr. Chen, and friends like EJ, Lauren, Jun, Jennifer for their invaluable assistance. Despite challenges, this journey brought invaluable experiences and friendships. Thank you all for your contributions and encouragement.

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The Preliminary Exploration of the E-lenz Children's English Learning Device Interface Design

Tzu-Han Lo, National Yunlin University of Science and Technology, Taiwan
Wen-Huei Chou, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In recent years, remote learning has become prevalent in the lives of children, with numerous online learning platforms and tools entering the market. Children are compelled to adapt to digital devices for learning, making digital education a new and prominent development direction. However, some studies indicate that certain learning applications emphasize content at the expense of the crucial user experience, resulting in overly complex interface designs that pose difficulties for users and consequently impact the learning process. In order to facilitate children's comprehension and rapid adaptation to new educational systems, designing a clear, understandable, and user-friendly interface coupled with corresponding learning methods has become a necessary task. To alleviate cognitive burdens on children and enhance their ability to focus on learning, this research focuses on the "E-lenz Assistive Learning Device," primarily designed for teaching children English pronunciation. Utilizing the expert interview method and incorporating recommendations from English education professionals regarding instructional models, tablets serve as the learning tool in conjunction with interactive learning cards equipped with sensors. Through embedded instructional videos and triggered sound effects within the cards, the digital learning model is restructured. Throughout the design process, principles of child interface design are upheld to create the user interface and instructional model for the E-lenz Assistive Learning Device, addressing and minimizing interface complexity issues during children's use of learning aids. This research introduces a novel approach to English language learning.

Keywords: Self-Directed Learning, English Teaching, Interactive Teaching, Post-pandemic Era, Tablet

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Introduction

The impact of the pandemic, coupled with technological advancements, has spurred the rapid development of online and self-directed learning, leading to a comprehensive transformation of educational methodologies across all levels. With improvements in technology and internet services, digital content, online courses, language learning apps, gamified learning software, and various formal and informal remote teaching and tutoring methods have emerged as new learning modalities. Digital content has reduced learning costs and expanded the audience reach.

Paul Gilster defined the term "Digital Literacy" in 1997 as "the ability to understand and use information in multiple formats from a wide variety of sources when it is presented via computers." In the current context where mobile devices are ubiquitous, the Taiwanese government has proposed strategies to align with this development trend. In the Ministry of Education's plan to enhance digital learning in primary and secondary schools, it is stated that starting from 2022, the government will invest a total budget of 20 billion NTD over four years to ensure that every student from grades 1 to 12 has access to tablet-assisted learning. This demonstrates that digital device-based learning has become one of the essential learning methods today (Wang Jinguo, 2023).

Integrating information and technology into teaching is a hot topic, but it is seldom addressed in the field of early childhood education. Relevant regulations and curriculum standards, such as the "Early Childhood Education and Care Act," the "Provisional Curriculum Guidelines for Preschool Activities," and the "Evaluation Form for Preschool Curriculum and Teaching Quality," rarely mention the use of technology and digital media (Su Xiuzhi, 2015).

New Trend of Learning

Mobile learning fully utilizes mobile devices to transcend geographical limitations and sustain user engagement. Despite the advantages of existing applications, some mobile learning programs, including those for children, face issues such as unattractive interfaces and complex designs, causing confusion among children (Latiff et al., 2019). Furthermore, research indicates that integrating technology into teaching methods effectively enhances learning outcomes, reduces cognitive load, improves the learning experience, and promotes self-directed learning (Thapaliya et al., 2024). However, in the context of English learning, many learners encounter difficulties in accessing courses and lack digital skills, leading them to seek alternative platforms. These challenges affect the satisfaction with online education and negatively impact learners' outcomes (Mahyoob, 2020). Therefore, the usability and intuitive design of educational platforms are critical factors influencing the user experience.

During the learning process, if learners are exposed to too many different types of media elements (text, visuals, audio) simultaneously, their cognitive load can increase. Cognitive load theory refers to the load generated when the information received exceeds the capacity of the brain's working memory or short-term memory, causing learners to engage in irrelevant cognitive processing. This additional cognitive load can reduce learning effectiveness (Tindall-Ford et al., 2020). Nelson and Erlandson pointed out that in multimedia information processing, cognitive load is influenced by the instructional design or material design, which affects the pressure and effort learners experience (Nelson & Erlandson, 2008). This cognitive load should be mitigated through instructional design changes; appropriate material design can reduce cognitive load and thereby enhance learning

outcomes (Paas & Sweller, 2014). Additionally, child-friendly interface design can not only enhance educational experiences but also promote skill development and cognitive abilities. By combining age-appropriate graphics, intuitive navigation, and interactive elements, digital platforms can effectively capture children's attention and ensure positive learning outcomes (Achdiani et al., 2021). For example, adding graphics to the curriculum can increase its attractiveness, positively impacting learning (Mayer, 2014).

Noetel et al. reviewed 29 studies and proposed five principles that significantly improve cognitive load management: (1) providing subtitles in second language videos, (2) temporal/spatial continuity, (3) signaling, (4) coherence/removal of unnecessary details, and (5) segmentation (Noetel et al., 2022).

In line with current trends, learning methods and materials utilizing mobile devices (such as tablets) are prevalent in the market. However, some learning applications focus on content while neglecting the importance of the user experience. Therefore, combining intuitive user interfaces with paper-based materials to promote children's understanding has become an important task. When developing mobile learning interfaces, designers and educators should prioritize user-centered design principles and consider the unique needs and abilities of children (Ahmad Faudzi et al., 2023).

This study aims to improve existing digital learning interface designs, with the goal of reducing cognitive load. Specifically, the study aims to review literature to outline the impact and current state of cognitive load on children in digital learning. Through this research, the study intends to integrate design elements that meet children's learning needs, reveal their motivations and challenges in digital learning, and compile design guidelines to reduce cognitive load. The study will develop the interface prototype for the English pronunciation learning device "E-lenz," which includes understanding user challenges and difficulties with courses and teaching, and conducting practical aspects of interface design. Based on interface design principles, the study will propose improved design methods and recommendations to provide children with a more intuitive user interface for English learning, enhancing their willingness to learn. The findings of this study will contribute to the existing body of knowledge in digital education by providing the latest and most comprehensive research results.

Discussion

In this study, we found that existing digital learning tools often lack child-friendly interface designs, which increases cognitive load and hinders learning outcomes for children. We attempted to reduce cognitive load in digital learning through a series of design strategies, aiming to enhance both learning effectiveness and motivation among children.

In terms of curriculum, teachers must continuously adapt their courses and teaching methods to keep pace with technological advancements, ensuring that students can follow the ever-changing learning models. This brings to light an important issue. As Su Xiuzhi (2015) noted, while digital learning has become a hot topic in education at various levels, it is seldom addressed in early childhood education. Experts and scholars remain cautious about the use of technology and digital media for young children. Therefore, there is a need for deeper exploration into how technology and digital media can be integrated into early childhood education to improve learning outcomes.

Latiff et al. (2019) emphasized that to create a supportive and inclusive learning environment, educators need to focus on child-friendly interface design, visual and auditory design features, and feedback and reward mechanisms. These design considerations are crucial for reducing cognitive load in digital learning for children. Designing a supportive and inclusive learning environment is also a challenging task. We need to consider how digital teaching can alleviate teacher stress while providing personalized learning experiences for each student and promoting peer collaboration. This requires careful thought and meticulous design.

Krippendorff (2013) highlighted that the key components for the successful acceptance of mobile learning applications by users are usability, appeal, and user-friendliness. Therefore, we need to design digital learning tools from these perspectives to effectively reduce cognitive load for children.

Our research has demonstrated the importance of integrating child-friendly design elements into digital learning tools to enhance learning experiences. By focusing on usability, intuitive navigation, and engaging visual and auditory elements, we can create digital learning environments that not only facilitate better learning outcomes but also increase motivation and engagement among young learners. The development of the "E-lenz" English pronunciation learning device's interface prototype exemplifies this approach, providing practical insights into designing effective digital learning tools for children. This study contributes to the existing body of knowledge in digital education by offering comprehensive and up-to-date research findings that can inform future developments in the field.

Design Process

This study follows a three-step approach: firstly, conducting user needs surveys and literature analysis to understand the issues and requirements of children's interface design. Secondly, based on the literature and design principles, prototype design of the "E-lenz English Learning Machine" user interface is conducted. Finally, prototype evaluation and subsequent recommendations are carried out to refine and improve the development of the "E-lenz English Learning Machine."

Drawing from the relevant literature, four effective design principles for reducing cognitive load are summarized and integrated into the research to alleviate users' cognitive burden:

1. **Maintain consistency of information:** When designing multimedia learning materials, arrange related information reasonably to avoid distracting learners or increasing cognitive load. Utilize appropriate visual and auditory elements to aid sequential understanding and memory.
2. **Use clear signals:** Guide learners' attention to key information or organize information effectively using visual cues such as highlights, colors, arrows, as well as auditory elements like tone, pace, or animations and charts to reduce the cognitive load of processing unnecessary information.
3. **Reduce unnecessary details:** Identify and eliminate extraneous or irrelevant information after determining learning objectives to prevent attention dispersion. Present only essential information required to complete tasks, using concise language and graphics to reduce information overload.

4. Provide appropriate guidance: Clearly communicate learning objectives and tasks, offer timely feedback to help learners understand their progress and effectiveness, correct errors, and facilitate effective learning.
5. Promote active learning activities: Encourage learner participation in interactive exercises and feedback to reinforce learning outcomes and alleviate the cognitive burden of passive learning.

Based on the literature review, this study addresses recommendations and challenges in children's digital learning, and outlines the structure and scenarios of digital learning materials. The main focus of this research is on the interface design of educational materials, including functionalities such as (1) homepage for selecting learning units, (2) pronunciation exercises with physical card-sensing machine to generate learning audio, (3) learning videos accessible by scanning QR codes on cards, and (4) rewards collection to provide feedback to children. Detailed functionality descriptions will be provided in the subsequent results section.

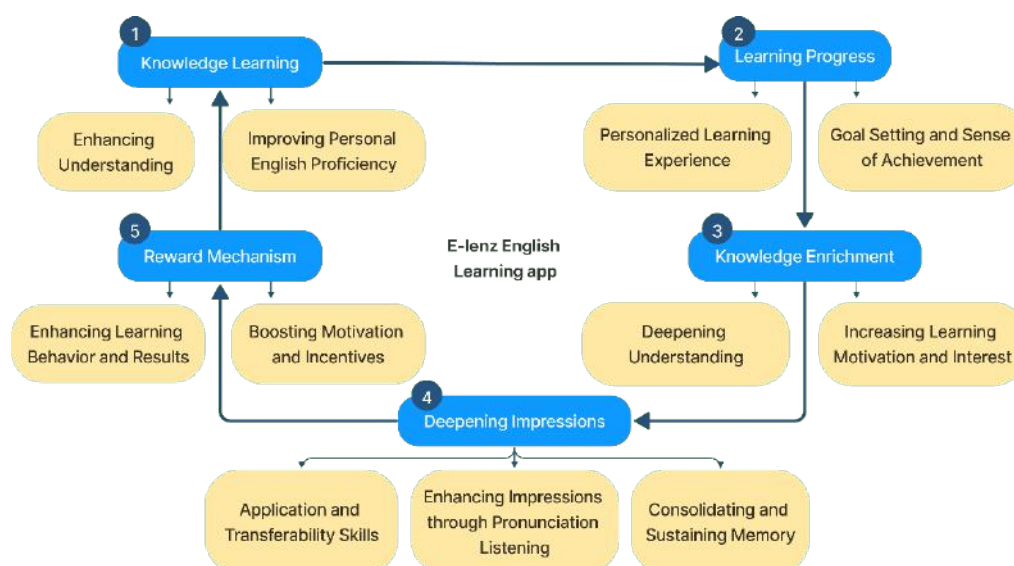


Figure 1: Conceptual Framework

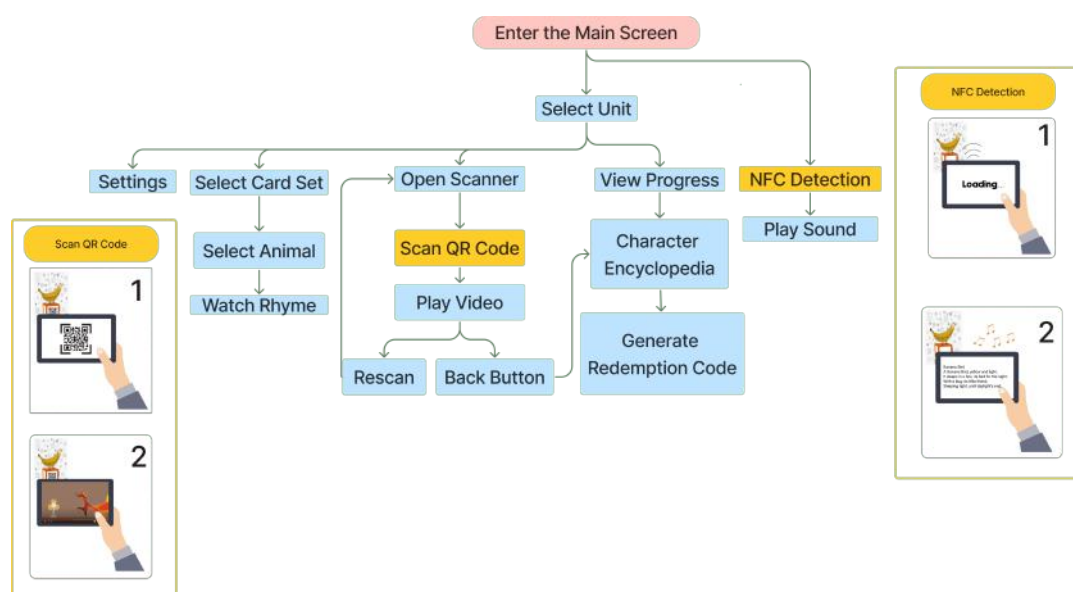


Figure 2: Functional Map

The User Interface (UI) is the medium for information exchange and interaction between the system and the user, converting system information into a form that is understandable and easily operable by humans. The success of mobile learning applications depends on their usability, attractiveness, and user-friendliness (Krippendorff, 2013). Research on children's use of application interfaces highlights the need to consider the following features:

1. Child-Friendly Design: Includes cartoon-style illustrations and easy-to-read fonts.
2. Visual Design: Utilizes bright colors and extensive use of graphics.
3. Sound Design: Incorporates cheerful background music and sound effects.
4. Feedback and Reward Mechanisms: Uses sound effects and animations to encourage children and provide immediate feedback.

This study will design the interface based on these considerations (Latiff et al., 2019).

Results

At this stage, based on the previous phases, we consolidated the functionalities and user flow to design the "E-lenz English Learning Device" user interface framework and prototype. We visualized the necessary functional buttons, and the design outcomes are as follows.



Figure 3: E-lenz UI Screen Design

We based our design considerations on the five points mentioned earlier to reduce cognitive load (Figure4). The first point, "Maintain consistency of information," is applied by integrating functional pages into beige-colored blocks and placing them at the bottom of the screen (number 6); within units, titles, texts, and images are grouped using white boxes (number 13); and by establishing group relationships among images of the same animals using dotted lines to guide users to swipe left or right to select words to learn (number 4). The second point, "Use clear signals," is demonstrated in rhyme lessons, where students can listen to the teacher recite poems using learning cards (number 5), and in the layout, where clear page prompts and flashing prompts upon task completion guide users' understanding (numbers 9, 12). In the third point, "Reduce unnecessary detail," we adopt a minimalist approach by using single-color line icons to avoid distractions from overly vivid designs (number 6); some screens use rounded color blocks to differentiate buttons, with text in non-blocked fonts and bold formatting to gradually reduce reading burden (numbers 1, 7). The fourth point, "Provide appropriate guidance," is implemented during the scanning of learning cards, where animals act as guides, and textual prompts mitigate usage difficulties, with icons indicating page numbers where flipping is required, enhancing effective learning (numbers 2, 3, 11). Finally, in the fifth point, "Promote active learning activities," children are encouraged through collection mechanics to use learning cards and watch instructional videos to earn certificates (numbers 8, 10, 14); auditory feedback during card scanning fosters a sense of achievement upon task completion.

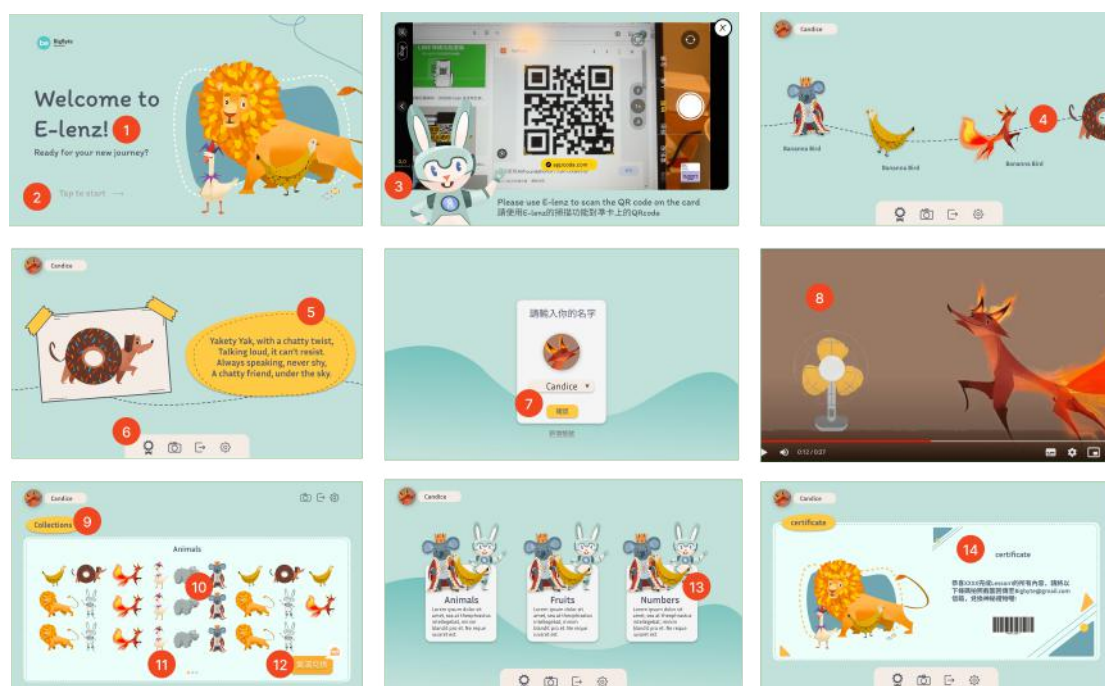


Figure 4: E-lenz Prototype

Conclusion

In this study, we underscored the importance of reducing cognitive load for children in digital learning through expert opinions and literature review. We adopted design principles proposed by experts, such as maintaining information consistency, using clear signals, and reducing unnecessary details. Additionally, we incorporated child-friendly interface design features mentioned in the literature, such as bright, soft colors and rich visual and auditory effects, to enhance the attractiveness and interactivity of learning. These principles were applied to the user interface design of the "E-lenz English Learning Machine." Through these applications, we aim to improve children's learning outcomes and motivation while providing valuable insights for the education sector to address the challenges of digital learning.

This study emphasizes the importance of considering the reduction of cognitive load when designing digital learning tools for children and implements this principle in design. Future research will further explore diverse learning modes through usability testing and expert interviews to enhance the effectiveness and relevance of design. Collaboration with the education sector will be sought to drive innovation in teaching methods and cultivate a new generation of learners who can effectively utilize technology.

Acknowledgements

I sincerely express my gratitude to all those who have supported and assisted me throughout the research process. Firstly, I would like to extend my heartfelt thanks to my professor, Wen-Huei Chou, for the invaluable support and assistance provided for this study. His technical guidance, provision of data, and insightful advice played a significant role in the completion of this research. Additionally, I want to offer special thanks to Mr. Yan, Stella, Jun, and Jennifer for their generous assistance with the experiments, creating wonderful memories during the research process. Furthermore, I want to sincerely thank my family and

friends for their unwavering support and encouragement throughout the entire research journey, allowing me to move forward in this study without any worries.

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Research on Interactive Graffiti Scanning Wall Design Strategies

Yu-Shan Ding, National Yunlin University of Science and Technology, Taiwan
Wen-Shan Chang, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Immersive exhibitions offer an exciting and novel way to provide an art experience and have the potential to expand the boundaries of traditional art exhibitions. In the context of an interactive graffiti scanning wall, this immersive experience further stimulates interaction and engages the visitor to gain a deeper understanding of the artwork and the ideas behind it. This study provides a framework for designing immersive experiences for interactive graffiti scanning walls, structured around five key elements: integration, interactivity, hypermedia, immersion, and narrative. By following this framework, designers can create interactive art experiences that are meaningful and engaging for users. In the era of digital transformation, this study focuses on "Design Strategies for Interactive Graffiti Scanning Walls", which explores the integration of interactive technology and graffiti art through the integration of digital technology into creative works. From the perspectives of technological art and interactive design, the study systematically investigates the design principles and practical methods, and through case studies and interviews with experts, the study explores the immersive experience of interactive graffiti for the audience. Through case studies and interviews with experts, the study will explore how to promote deeper interaction between graffiti art and audiences, and provide theoretical and practical references for designers and audiences.

Keywords: Interactive Design, Interactive Graffiti Scanning Wall, Immersive Experience

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Introduction

With the rapid advancement of technology in recent years, immersive exhibitions have become a new trend in the art world and exhibition industry, bringing exciting new experiences to visitors. Especially in the context of interactive graffiti scanning walls, visitors can engage with and understand artworks more deeply. Art is not only about creation, but also a form of synthesis between technology and creativity. This synthesis promotes innovation and advances human society. At the same time, social interaction and creativity are recognized as key elements in the design of interactive graffiti scanning projection walls. Art plays an important role in human life, not only as a basic educational need, but also as an important means of interpersonal communication. In the case study of designing an interactive graffiti scanning projection wall, the concern is not only the technical realization, but also emphasizes the combination of artistry and humanity (Nugrahani, 2019).

Unlike traditional art exhibitions, today's immersive exhibitions introduce the integration of multiple technologies, including projection technology, interactive sensors, etc., which are no longer just viewed from a distance, but can be interacted with and build a more engaging exhibition experience. It is also common to integrate knowledge and entertainment experiences to attract audiences and stimulate their thinking. However, with the advancement of technology nowadays, over-reliance on technology may lead to a decrease in audience participation and loss of humanity in exhibitions. In order to improve the situation, this paper proposes a framework for interactive graffiti wall design that provides designers and audiences with a more valuable and immersive exhibition experience.

Purpose of the Study

This study will collect data to deeply understand the characteristics of interactive graffiti scanning projection walls, and collect and analyze the current design cases of interactive graffiti scanning projection walls and interviews with experts to create an immersive experience framework for interactive graffiti scanning wall design, hoping that this study will be helpful for professionals in different fields to apply.

Research Limitations

This study focuses on the design strategy of interactive graffiti scanning wall to investigate how to create an immersive experience through the integration of digital technology and art. However the study still has the following limitations:

1. Technical constraints: different technological solutions may have technical limitations, such as cost, equipment requirements, operational complexity, etc., which will affect the practical application of the design strategy.
2. Time constraints: The limited time available for the study may not allow for an in-depth exploration of all the relevant factors and influences that need to be focused on within a limited period of time.

This study will endeavor to overcome these limitations in order to ensure the reliability and validity of the findings and to provide valuable guidelines and recommendations for the design of interactive graffiti scanning walls.

Science and Technology

Technological art is the integration of technology and art, realizing real-time interaction between the audience and artworks through interactive technologies, including virtual reality and sensor technology, which challenge traditional art boundaries and are presented in different art forms (Yuan Guangming, 2016). Recent studies have emphasized the emotional response of technology in interactive installation art, where the artist is not only a technological manipulator, but also an emotional guide, transforming the nature of art and enriching the art experience (Mila Bujić, 2023). Through technologies such as virtual reality and interactivity, viewers are able to deeply perceive emotions and enhance their experience of the artwork.

Origins of Technological Art

The origins of technological art can be traced back to the mid-20th century, and with the fusion of the fields of technology and art, many avant-garde art forms have emerged. One important development was electronic art, which involved the use of electronic media and devices to create art. For example, the experiments in electronic music and visual art in the 1950s and computer art in the 1960s were important milestones in technological art. With the development of digital technology, the scope of technological art has further expanded to include new areas such as virtual reality, augmented reality, and interactive art. These technologies have provided artists with brand-new creative tools and ways of expression, making artworks more avant-garde and interactive. At the same time, technological art also promotes cross-border cooperation between art and science, engineering and other fields, and facilitates cross-disciplinary innovation and development. Science and technology art has become an important branch of the art world, and continues to influence people's cultural life and art experience.

Media and Tools of Science and Technology Art

The media and tools of Art of Science and Technology refer to the use of technology as a medium and tool for the creation, expression or presentation of art. These tools include, but are not limited to, virtual reality (VR), augmented reality (AR), computer art, digital art, interactive art, and network art. Firstly, technological art media tools provide new means of creation and expression, enabling artists to explore and experiment with different artistic styles, forms and techniques. Secondly, these tools can enhance the audience's artistic experience, for example, by bringing the audience into a virtual art space through virtual reality technology, or by combining the real world with virtual artworks through augmented reality technology. In addition, technological art media tools can also promote art education and popularization, for example, through the display and sharing of digital art works on online platforms, so that more people can have access to and appreciate art. Taken together, technological art media tools bring new possibilities and opportunities for art creation, audience experience and art education, and promote the continuous innovation and development of the art field.

Mind Flow Theory

Developed by psychologist Mihaly Csikszentmihalyi in 1975, the theory of mindstreaming describes a state of mind that allows a person to be fully immersed and engaged in an activity. Mindfulness involves highly focused, goal-directed activities that allow the individual to

merge seamlessly with the activity and focus on achieving the goal. Dimitri (2021) noted that while completing a task, people may enter a state of total concentration and become virtually unaware of their surroundings. In the literature, this state is referred to as 'mindfulness flow' (Csikszentmihalyi, 1988, 2014).

Csikszentmihalyi (1996) describes mindfulness flow as “an almost automatic, effortless, and highly focused state of awareness” (p. 110). Individuals are more likely to enter a state of mindstream when there is a balance of challenge and skill, which requires challenging tasks, high levels of concentration, clear goals, immediate feedback, and skill matching. Characteristics of mindstream include high levels of concentration, self-forgetfulness, satisfaction, and great enjoyment.

Mindstream theory has many applications in a variety of fields: in personal activities, people find mindstream experiences in painting, writing, or music; athletes experience mindstream to enhance performance and enjoyment in competition; educators should use mindstream theory to design engaging learning activities to stimulate student interest; and in game design, mindstream theory is a cornerstone of immersive experiences. These applications encourage individuals to become fully engaged in the activity, increasing emotional granularity and positive affect. Table 1 lists nine characteristics of a mindstream experience (Linden, 2021) that influence emotional granularity.

Table 1. Nine Characteristics of the Heart Flow Experience

Traffic Characteristics	Description
1 Integration of action and awareness	Several aspects of the task are performed in an "automatic" manner.
2. Highly focused/concentrated	A person who is fully engaged in the task at hand.
3. Reduced self-reflection/lack of worry/forgetfulness	This may be due to concentration, less thinking and worrying about oneself, and ignoring non-task related aspects of the environment.
4. Control of everything	The person believes that adequate performance can be maintained.
5. Clear goals	The person knows what must be done and what goals to achieve.
6. Feedback	There is continuous (not necessarily conscious) monitoring of performance.
7. Autotelic experience	The experience has beneficial properties (some addictive elements).
8. Changing time experience	Subjective time passes relatively quickly.
9. Balance of skills and mission challenges	People's knowledge and skills are optimized for performance (on an individual basis).

Source: Linden (2021)

Immersive Experiences Based on the Mind Flow Theory

Developed by psychologist Mihaly Csikszentmihalyi, the theory of mind flow describes the high level of concentration and satisfaction that people feel when they are fully engaged in an activity. In a state of mindfulness, the individual is fully absorbed, forgetful of time and self,

and feels a great sense of pleasure and fulfillment. In research, artists have described this state of total immersion while creating, allowing them to express ideas and emotions more freely (Chemi, 2016). This experience can increase user engagement and satisfaction, as well as loyalty to the experience. Mindstream theory has a wide range of applications, including the fields of art, sports, education, and game design, and can help individuals achieve their goals and needs.

Relevance of the Mindstream Experience to Interactive Graffiti Scanning Walls

The Interactive Graffiti and Scanning Wall combines graffiti, projection and scanning technologies to provide a unique interactive experience for users. This emerging art form is widely used in art exhibitions, public spaces and commercial activities. Interactive Graffiti and Scanning Walls provide users with moderately difficult goals, such as creating a painting or completing a game, to keep them interested and engaged. In addition, these walls provide instant feedback so that users can see their work transformed into virtual images in real time. This helps users stay focused, enter into a mind-flow experience, stimulate creativity, and enhance physical and mental well-being.

Immersive Experience Design

Immersive experience design combines technology and creativity to provide an immersive sensory experience. It utilizes technologies such as VR, AR, and MR to create simulated or fictional environments and includes a full range of sensory interactions including sight, sound, touch, and smell. Csikszentmihalyi (1975, cited in Chang, 2021) suggests that immersion allows the user to be highly conscious, to respond only to specific goals and feedback, and to feel a sense of control. This type of design emphasizes the deep involvement of the user in a virtual or augmented reality through elements such as scene, narrative, and environment, providing a deep and memorable experience.

Immersive experiences are used in a wide range of applications, including art exhibitions, cultural events, product demonstrations and educational training, to enhance perception and interaction, and to stimulate emotion and engagement. Research has shown that this design approach has a positive impact on culture, art, entertainment and education. At its core is the integration of technology and the senses. Through virtual reality devices, users can enter different virtual environments and extend their sensory experience through visual, audio and tactile feedback.

Sensory Stimulation Induced by Immersive Experiences

Immersive experiences utilize multi-sensory stimulation to simulate the real world and are widely used in entertainment, education, training, and medical fields. Sensory stimulation is one of the key elements of immersive experiences, including sight, hearing, touch, smell and taste. Research has shown that these stimuli have positive effects on cognition, such as increasing engagement, enhancing memory, facilitating learning, regulating emotions, and relieving pain (Yang, Luo, Hu, Tian, & Wen, 2021). Common techniques used in immersive experiences include: visual stimulation using high-resolution displays, 3D technology and VR to create realistic effects; auditory stimulation using a surround sound system and high-fidelity sound effects; tactile stimulation to simulate realistic touch, such as feeling the recoil of a gun in a VR shooting game; olfactory stimulation to enhance the ambience using fragrance; and gustatory stimulation to allow users to taste the virtual food. The application

of these technologies makes the immersive experience more realistic and immersive for the user.

Graffiti Painting Application in Immersive Experience

Graffiti paintings are widely used in immersive experiences to enrich sensory and emotional experiences. By creating unique scenes and backgrounds, artwork lowers cortisol levels and increases mood and self-efficacy (Kaimal, Ray, & Muniz, 2016). Brightly colored, creative patterns on walls, floors and other surfaces create unique virtual worlds. Graffiti can also be more interactive, such as participating in a graffiti project to increase engagement and satisfaction. Using augmented reality or virtual reality technology, graffiti can be combined with digital elements to provide a more immersive experience (Gwilt & Wilde, 2022). At the same time, graffiti can convey messages and stories that capture the audience's attention, penetrate the mind and heart, enrich the immersive experience, promote the integration of art and technology, and enrich life and cultural experiences.

Conceptual Framework: Design Features of Interactive Graffiti Scanning Walls

In order to explore the design features of the interactive graffiti scanning wall in providing rich interactive experience, this conceptual framework is discussed from both technical and user experience perspectives. The technical features include hardware, software and network considerations, while the user experience focuses on the user's participation, perception and emotion in the interactive graffiti scanning wall. According to Jordan (1998), there are five characteristics of digital media art that are also applicable to the design of interactive graffiti scanning walls as a form of digital media art. These characteristics are crucial to the design of interactive graffiti scanning walls, specifically:

1. **Integration:** The integration of multiple elements, including hardware and software components, to create a seamless interactive environment.
2. **Interactivity:** Provide opportunities for users to interact with the wall, allowing them to participate directly in the creative process and provide immediate feedback on the virtual elements.
3. **Hypermedia:** By integrating multimedia elements such as graphics, sound and video, it creates a rich interactive experience and enhances the user's sense of involvement.
4. **Immersion:** Through realistic visual and auditory effects, users are immersed in the creative process, forgetting about their surroundings and concentrating fully on the interactive experience.
5. **Narrativity:** Through interaction and creation, users can build stories on the graffiti wall to show their creativity and imagination, thus enriching the interactive experience.

Together, these features ensure that the interactive Graffiti Wall is designed to provide a rich and engaging user experience, making it a compelling form of digital media art.

Interactive Graffiti Scanning Wall Design Exhibition

The Interactive Graffiti Scanning Wall exhibition is a compelling interactive art experience that provides visitors with an interactive environment unlike traditional art. The interactive wall in the exhibition engages people and allows visitors to use tools or applications to create artworks on the wall. This participatory design turns art into a creative activity where visitors have fun creating and sharing creative ideas, facilitating communication and

interaction. Nugrahani et al. (2019) state that creating enhances creativity and provides a means of self-expression. The Interactive Graffiti Scanning Wall exhibition aims to create shared and interactive art spaces that integrate art into everyday life and promote social interaction.

Interactive Graffiti Scanning Wall Design Exhibition Production Teams

In this study, four case samples were analyzed and summarized through the collection of case data, including “Sketch Animals Papercraft”, “Walk, Walk, Walk Home”, and so on, a total of four domestic and international cases, and the basic data of the cases include the case name, the date of display and publication, the design team, and the source of the data, etc., as shown in Table 2.

Table 2. Four Case Studies

No.	Name of case	period	Design Teams	Source of information
1	Sketch Animals Papercraft	2016	TeamLab	TeamLab
2	paint2life	2019	Vertigo Systemsru	Vertigo Systemsru
3	Walk, Walk, Walk Home	2021	TeamLab	TeamLab
4	Chinese Post Museum	2021	Lightfull Studio	Lightfull Studio

Case 1: Sketch Animals Papercraft

TeamLab is a multidisciplinary international art organization founded in 2001 and headquartered in Tokyo, Japan. Their team consists of artists, programmers, engineers, CG animators, mathematicians and architects, and they call themselves “super technologists”. The team's animal-themed paper sculptures display life-like animal shapes, with the silhouettes and features of the animals hand-drawn onto the paper to create unique and vibrant artworks.



Figure 1. TeamLab resonance microchamber - curing light color, dusk to dawn.
Source: TeamLab

Case 2: paint2life

Vertigo Systems specializes in creating digital illusions using the latest 3D virtual reality technology and offers exclusive pieces for use in trade shows, events and permanent installations. Through projection technology, they transform static paintings into vibrant art experiences, creating aquarium-like motion effects that bring dimension and movement to flat paintings. Figure 2 Vertigo Systemsru living ocean.



Figure 2. Vertigo Systems living ocean
Source: Vertigo Systemsru

Case 3: Walk, Walk, Walk Home

Produced by TeamLab International Art Group, the artwork shows people's journey home through projection technology, giving the audience a sense of time travel, blending projection technology with the understanding of walking and going home, presenting a unique artistic style and reflecting the trend of fusion between technology and art.



Figure 3. TeamLab Walk, Walk, Walk Home
Source: TeamLab

Case 4: Chinese Postal Museum

Lightfull Studio is a light sculpture design company located in Changhua, specializing in providing complete services in light sculpture projection design, including architectural projection, interactive projection, immersive projection, and light art installations. This is a colorful collection of sea creatures for a special stamp exhibition.



Figure 4. Lightfull Studio Chinese Postal Museum
Source: Lightfull Studio

Literature Summary

Interactive graffiti projection walls play an important role in digital media, combining projection technology and interactivity to bring unique experiences to a variety of venues, with companies such as TeamLab, Vertigo Systemsru, and Light House demonstrating innovation. According to the theory of mind flow, interactive graffiti scanning walls help

users enter an immersive state of mind that enhances creativity and physical and mental well-being. Immersive experiences are designed to enhance perception and interaction through technologies such as virtual reality, and to enrich the user's life and cultural experience. Overall, these combinations blur the boundaries between the virtual and the real, facilitating deeper engagement and meaningful connections.

1. Research Framework

According to the literature, interactive graffiti scanning wall is an emerging interactive art form with potential creativity stimulation and physical and mental health enhancement functions. This study will be divided into three phases: demand survey, prototype design and production, and prototype evaluation and follow-up recommendations. First, a user needs survey was conducted to understand the needs and expectations of the interactive graffiti scanning wall, and a prototype structure was designed to meet the needs. Then, prototypes will be created and developed, and finally, expert evaluation will be conducted to provide recommendations for further improvement as a reference for design strategy.

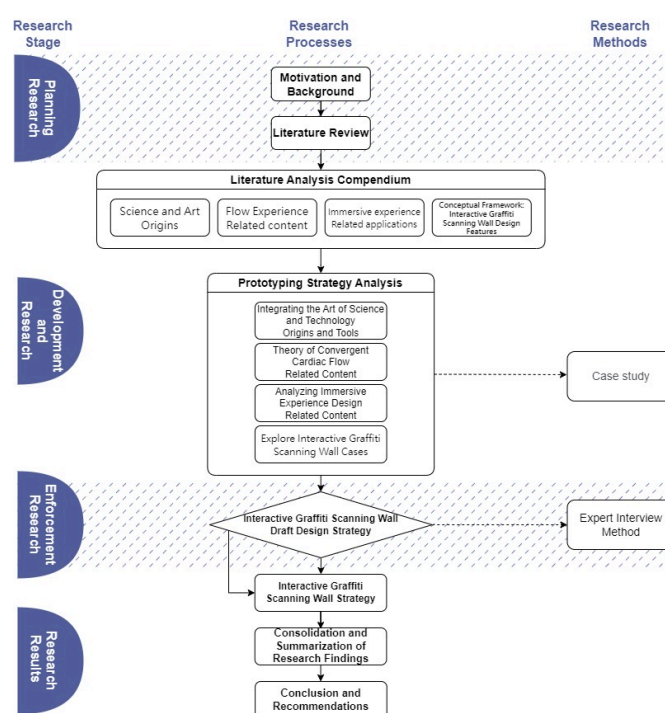


Figure 5. Research Organization Flowchart
Source: This study draws

2. Expert Interview Method

This stage evaluates the usability of the interactive graffiti scanning wall interface through expert interviews, covering insights from experts in the fields of light sculpture, software engineering, digital media design, and so on. Their suggestions will provide multiple references for designers and audiences to discuss the considerations, features and difficulties in creating interactive graffiti scanning walls.

Table 3. List of experts for in-depth interviews

Interviewee	Design Experience	Expertise/Experience	Date of interview	Location
Mr. Wong	deep	Light Carving Designer	2023/04/10	Online
Mr. Lin	deep	Light Carving Designer	2023/04/12	Online
Mr. Chan	Medium	Digital Media Design	2023/04/15	Entity
Ms. Tsang	shallow	Digital Media Design	2023/04/17	Entity

Source: Organized by this study

3. *Semi-structured Interviews*

The semi-structured interviews were designed to explore specific topics in depth and in a flexible way, whilst ensuring a degree of structure to the interviews. The interviewees will consist of four photomontage designers, experts with backgrounds in digital media design. These subjects will have a wealth of relevant experience and insights that will enable an in-depth understanding of the design strategy and impact of the interactive graffiti scanning wall. The interviews will cover the following topics:

- Integration: A unified and complete experience.
- Interactivity: Participation of visitors in the creation of art to enhance the visiting experience.
- Hypermedia: Multi-media elements will be incorporated to enrich the sensory experience.
- Immersion: To create an immersive art experience.
- Narrative: To guide visitors to create stories and stimulate their imagination.

4. *Empirical Research*

Interviews were conducted with experts with relevant backgrounds in making interactive graffiti scanning walls, one female and three males, with a total of four respondents. The interviews contained five key elements that characterize the content that should be used in an interactive graffiti scanning wall.

Table 4. Content of Expert Interviews

Integrative	<ol style="list-style-type: none"> 1. Experts believe that the interactive graffiti scanning wall is an innovative art form that combines hardware and software. In terms of hardware, it requires equipment such as projectors, sensors and computers to realize image projection and interaction. For software, machine learning algorithms are used to recognize the user's graffiti and provide real-time feedback. 2. The advantage of an interactive graffiti scanning wall is that it allows users to participate in the creative process and gain a unique interactive experience. This is a good format for art installations in public spaces, which can attract people's attention and promote social interaction. 3. Experts believe that the development of interactive graffiti scanning wall is inseparable from the synergistic evolution of hardware and software. With the continuous progress of sensors, projectors and machine learning technology, the interactive graffiti scanning wall will present a richer form and function. 4. Experts emphasize the important role of open source software in the creation of interactive graffiti scanning walls. Open source software allows more developers to participate in the development of interactive graffiti scanning walls, thus promoting the rapid development of this technology.
Interactivity	<ol style="list-style-type: none"> 1. It is considered that the interface design of the interactive graffiti wall should follow the principles of simplicity and comprehensibility so that users can get started quickly. In addition, the interface elements should be consistent with the user's intention and operation to avoid confusion. For example, the functions can be clearly labeled with icons or text labels. 2. Suggested that the interface of the interactive graffiti wall should provide diversified interaction methods, such as touch control, voice, etc., to meet the needs of different users. 3. Considered that there is still room for improvement in the hardware and software integration of the interactive graffiti wall. For example, the resolution and accuracy of the sensors need to be improved, and the speed and stability of the software also need to be further optimized. 4. The user experience of the interactive graffiti wall is affected by the integration of hardware and software. Poor integration may lead to delays, lagging, and other problems, affecting the user's smoothness of operation.
	<ol style="list-style-type: none"> 1. The expert emphasized the role of multimedia elements in enriching the experience of using the interactive graffiti scanning wall. He opined that multimedia elements could provide users with a more vivid and three-dimensional sensory experience, allowing them to be more immersed in the interactive process.

Hypermedia	<p>2. In designing interactive graffiti walls, multimedia elements can be utilized to enhance users' immersion and participation. For example, sound effects, light effects and animation can be used to create a virtual environment and atmosphere so that users feel as if they were there.</p> <p>3. Updating and iteration of multimedia elements. With the advancement of technology, new multimedia elements continue to emerge, we can apply these new elements to the interactive graffiti wall to bring users a newer and more unique experience. For example, we can use virtual reality technology to create a more realistic virtual environment or artificial intelligence technology to realize more personalized interaction.</p> <p>4. When designing and applying multimedia elements, we should fully utilize their advantages to create a better experience for users.</p>
Immersiveness	<p>1. Immersive interactive installation art breaks the traditional mode of viewing art, allowing the viewer to become part of the work and participate in its creation. However, I think the immersive feeling can be enhanced by VR, AR and AI technologies.</p> <p>2. Suggestion: Add more dynamic visual effects, sound effects to interact with the graffiti, and diversified interactive methods to enhance the immersion!</p> <p>3. I think that the immersion of the interactive graffiti scanning wall can be further enhanced by personalized experiences or open-ended results, so that viewers can feel more unique and imaginative.</p> <p>4. Immersive interactive installation art brings new sensory experience to the viewers through technological means. However, I think it can also be done through multi-sensory stimulation, storytelling, characterization, or by adding social interaction.</p>
Narrative	<p>1. In order to inspire users to create, the interactive graffiti wall can provide diversified story templates and materials, covering fairy tales, science fiction scenes and other topics, and allow users to freely combine and customize to create unique creative stories.</p> <p>2. In order to further enhance users' creative experience, the interactive graffiti wall can add a guided creation function to provide users with some creative ideas and suggestions on techniques. At the same time, it can also consider adding an AI intelligent assistant function that automatically generates a story line based on the user's graffiti and provides translation services in different languages, so that the creator's work can cross the language barrier.</p> <p>3. To further enhance user immersion, the interactive graffiti wall can introduce VR/AR technology to create more realistic virtual scenes, allowing users to feel as if they were in the story, interacting with virtual characters and experiencing a more immersive experience.</p>

4. In order to enhance the sharing experience of users, the interactive graffiti wall can provide diversified sharing channels to support users to publish their works to different platforms such as social platforms, art communities, etc. It also provides interactive functions such as clicking "Like" and leaving comments on the works, which encourages users to communicate and interact with each other to form an active creative community.

Research Analysis and Findings

Interactive Graffiti Scanning Wall is an emerging art form that integrates hardware, software and multimedia elements and has a broad development prospect. In order to explore the design strategy of the interactive graffiti scanning wall in depth, we conducted interviews with four experts and summarized the following conclusions on this basis:

Immersive exhibitions provide novel ways to experience art, and interactive graffiti scanning walls take the immersive experience to new heights. This study conducted expert interviews based on five design features of interactive graffiti scanning walls and proposed design strategies to improve interactive graffiti scanning walls.

1. Interface Design

The interface design should be simple and easy to understand, and follow the user's habit, so that the user can get started quickly. Provide a variety of interactive methods, such as touch, voice, gesture recognition, etc., to meet the needs of different users. Ensure the stability and smoothness of hardware and software to avoid delays, lagging and other problems affecting the user's operating experience.

2. Enhance Immersion

Utilize multimedia elements, such as sound effects, light effects, animation, etc., to create a virtual environment and atmosphere, so that users feel as if they were there. Adding dynamic visual effects, audio feedback for interacting with graffiti, and multiple interactive methods will further enhance the sense of immersion. Provide personalized experiences or open-ended results to make users feel more unique and imaginative.

3. Open Source

Open source will help more developers to participate in the development of interactive graffiti scanning wall and promote the rapid development of this technology. Open source can promote communication and cooperation between different teams and promote innovation. Open source code can reduce the cost of use, so that more people can experience the fun brought by the interactive graffiti scanning wall.

4. Focus on the Synergistic Evolution of Hardware and Software

With the continuous advancement of sensors, projectors and machine learning technologies, interactive graffiti scanning walls will present richer functions and forms. The synergistic evolution of hardware and software can continuously enhance the performance and

experience of interactive graffiti scanning walls. Focusing on the development of cutting-edge technologies and applying them to the design of interactive graffiti scanning walls can lead the way in the development of this technology.

Conclusion

The Interactive Graffiti Scanning Wall is an emerging form of art exhibition with a broad development prospect. It integrates hardware, software and multimedia elements to provide an immersive and interactive art experience for the audience.

Recommendations

Based on the findings of the expert interviews and the study, we propose the following recommendations to improve the design of the interactive graffiti scanning wall:

- In terms of interface design, it should be simple and easy to understand, provide diversified ways of interaction, and ensure the stability and smoothness of hardware and software.
- To enhance immersion, multimedia elements should be used, dynamic visual effects should be added, and personalized experiences or open-ended results should be provided.
- Open source code will help promote the technical development of interactive graffiti scanning walls, facilitate exchanges and cooperation, and reduce the cost of use.
- In terms of synergistic evolution of hardware and software, attention should be paid to the development of cutting-edge technologies and their application in design.

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Contact email: dings96019@gmail.com

Design Principles for Integrating Mindfulness Meditation Into Immersive Virtual Reality Experiences

Nian-Hao Chen, National Yunlin University of Science and Technology, Taiwan
Wen-Shan Chang, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Across borders, people face numerous life stresses, resulting in difficulties regulating emotions and accumulating negative emotions. Meditation is an effective way to enhance the mind, attention, help alleviate emotional stress, and increase happiness, but traditional meditation methods have limitations. This study aims to explore integrating immersive virtual reality (VR) technology into the meditation experience and propose principles for designing VR-assisted meditation systems. The research evaluates the current applications of meditation and VR in the therapy and mental health domains through literature review. It also adopts a semi-structured interview approach to understand experts' actual perspectives on the applications. Results demonstrate that VR technology significantly enhances meditation immersion, and combining VR with traditional meditation holds high potential. Based on the analysis results, this study proposes a set of five key principles for designing VR-assisted meditation systems: the principle of attention guidance, situational design principle, interaction feedback principle, progressive principle, and personalization principle. These principles aim to maximize the facilitative effect of virtual reality on the meditation experience and provide guiding principles and recommendations for system development and design applications in this field. The research outcomes are expected to promote innovative VR meditation solutions that can help people alleviate emotional stress, cultivate emotional regulation abilities, and promote overall mental health. By leveraging immersive VR technology thoughtfully integrated with meditation practices, this study paves the way for novel interventions to improve psychological well-being.

Keywords: Meditation, Virtual Reality, Immersive Experience Design Interaction Design, Emotional Granularity

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Introduction

In contemporary society, high levels of stress are prevalent, posing a significant threat to individual mental health. The 2019 Cigna 360° Well-Being Survey, conducted by Cigna, the parent company of Taiwan Life Insurance, revealed that 96% of Taiwanese respondents frequently experience stress. This places Taiwan as the second most stressed nation among the 22 countries surveyed, just behind South Korea at 97%.

Modern life is often hectic, and individuals face numerous sources of stress. To cope, many people tend to overlook their true inner feelings, neglecting the subtle nuances and needs behind various emotions. Instead, they resort to broad positive or negative terms to categorize their experiences.

Research has shown that high emotional granularity, the ability to make fine-grained distinctions within one's experience of negative emotions, is associated with better coping mechanisms and improved mental health outcomes (Kashdan et al., 2015; Smidt & Suvak, 2015).

The cultivation of emotional granularity can be achieved primarily through therapeutic activities such as meditation and mindfulness practices.

Meditation is a method of mental training. Long-term meditation practice allows individuals to develop the ability to acknowledge and confront their emotions, leading to improved stress management and emotional regulation. Mindfulness meditation, in particular, has been adapted for secular interventions (Kabat-Zinn, 2011) and remains a significant meditation practice. Research suggests that several characteristics of mindfulness practice, regardless of Buddhist or secular context, can train the capacity for experiencing granularity. A "deep integration" between the constructionist approach in emotion science and Buddhist traditional scholarship can inspire novel research avenues (Christine D, 2021).

Research Objectives and Questions

The objective of this research is to explore the design principles of creating a meditation experience by integrating traditional meditation practices with immersive virtual reality (VR) technology. Meditation is a method for enhancing mental well-being, attention, and self-awareness, with positive effects on alleviating emotional stress and improving happiness. However, traditional meditation methods are often limited by environmental and time constraints. Immersive VR technology can provide a distraction-free virtual environment, enhancing the immersive experience and effectiveness of meditation. Additionally, immersive VR technology can offer personalized meditation experiences, allowing users to adjust the meditation environment and content according to their individual needs.

This study will employ a literature review, expert interviews, and case studies to investigate how to combine immersive VR with meditation and establish design principles for creating a meditation experience. The research findings will provide a foundation for academia and industry in the research and application of immersive VR and meditation integration, and will guide the future development of meditation therapy.

Meditation: An Ancient Practice for Modern Minds

In today's world, mental health is gaining increasing recognition. Meditation, as a mind-body training method with a history spanning thousands of years, has been widely practiced in Asian cultures. It is believed to alleviate stress, enhance emotional regulation, and promote well-being (Brown & Ryan, 2015). Traditional meditation techniques encompass various methods: physical relaxation methods represented by sitting meditation, breathing-focused techniques like breath awareness, and mindfulness training centered on observation. These techniques aim to help individuals achieve a state of physical and mental relaxation, focus, and awareness.

Meditation has been extensively applied in the field of mental health. Research indicates that sitting meditation can lead to small to moderate reductions in multiple negative dimensions of psychological stress (Hofmann et al., 2010). Additionally, it can alleviate anxiety, depression, and stress, promoting physical and mental well-being while enhancing personal happiness, thereby helping individuals achieve a better state of mental health (Keng et al., 2011). Moreover, meditation can improve cognitive abilities such as enhancing concentration, improving memory, and even fostering creativity (Tang et al., 2007).

Types and Methods of Meditation

Meditation is a method of mental training, and most of the original mentions are related to religious topics. Meditation training skills can be found in almost every religion. In a broad sense, it refers to any form of quiet sitting, the purpose of which is to guide the mind to a state of focus, peace, and happiness. Popular modern meditation techniques include mindfulness, insight, Zen meditation, and quiet sitting. Mindfulness emphasizes focusing the mind on the present experience, not falling into the vortex of thoughts about the past and the future. Mindfulness meditation is helpful in reducing stress, improving mood, and enhancing concentration (Kabat-Zinn, 2013). Insight originated in ancient India and focuses on observing bodily sensations and thoughts and emotions related to oneself. Through insight, practitioners can gain a deeper understanding and acceptance of themselves. Zen meditation is one of the core cultivation methods of Buddhism. It covers a variety of different techniques, including meditation, visualization, etc. The purpose of Zen meditation is to achieve mental stability and clarity, and it is an important practice method for enlightenment (Liu Yining, 2017). Sitting meditation is a simple form of meditation, which usually includes sitting cross-legged and focusing on the breath. Sitting meditation can help relax the body and mind, improve sleep quality, and enhance overall well-being (Walsh & Shapiro, 2006).

Benefits of Meditation

While different types of meditation have their own characteristics, they all share common goals and mechanisms of action. Whether it is mindfulness meditation, insight meditation, Zen meditation, or simple sitting meditation, these forms of meditation aim to achieve physical and emotional relaxation and mental peace through training attention. Mindfulness meditation focuses primarily on the present moment, which helps to alleviate the negative effects of overthinking. When we overthink, we fall into negative emotions such as self-doubt, anxiety, and fear. Mindfulness meditation can help us focus our attention on the present moment, without judging or analyzing our thoughts, thereby reducing the impact of negative emotions (Kabat-Zinn, 2013).

Meditation aims to guide the body to relax and help soothe emotions of different types. By training concentration, meditation can strengthen the cultivation of emotional intensity, improve the ability to control impulses, and activate positive emotions to achieve healing effects.

Immersive Interactive Experience Design

Immersive experience design (Immersive Experience Design) refers to the use of interactive technology to create immersive interactive experiences for users (Bailenson et al., 2017). Immersive experiences can be achieved in different ways, such as virtual reality (VR), augmented reality (AR), mixed reality (MR), etc.

Immersive experience design can be applied to different fields, such as entertainment, education, and medicine. In the entertainment industry, immersive experiences can be used to create more realistic and exciting game or movie experiences. In the field of education, immersive experiences can be used to create more interactive and immersive learning environments. In the field of medicine, immersive experiences can be used to provide more realistic and effective treatment or training.

Immersive experience design is an emerging design field with broad application prospects. In the design of immersive sitting meditation experience, the advantages of immersive experience design can be utilized to provide users with a more immersive meditation experience and achieve a healing effect (Sterna, 2021).

Definition and Concepts of Immersive Virtual Reality

Immersive interaction is defined as an interactive method that allows users to feel surrounded by a virtual environment. Users can explore and experience the virtual environment through their senses and interact with virtual objects in it. Immersive interaction is mainly used with virtual reality (VR), augmented reality (AR), and mixed reality (MR) technologies to place users in a virtual environment and allow them to experience an immersive experience. Immersive interaction has a wide range of applications, including education, entertainment, medicine, and the military. In the field of education, immersive technology can be used for training (Liu, Yin, 2021); in the field of entertainment, immersive technology can be used for games, movies, TV, etc.; in the field of medicine, immersive technology can be used for treatment, rehabilitation, etc.; in the field of military, immersive technology can be used for training, simulation, etc. (Liu, Yin, 2021).

Technology and Applications of Immersive Virtual Reality

Immersive virtual reality technology provides a unique opportunity to introduce sitting meditation. As pointed out in the study by Meehan et al. (2002), high-quality audiovisual experiences can increase users' concentration, which is very important for achieving a meditative state. In addition, compared with traditional meditation guidance, virtual environments provide self-correction and personalized meditation scene selection. This can reduce anxiety in beginners and increase the attractiveness of meditation (Navarro-Haro et al., 2017).

Designing high-quality immersive virtual reality meditation experiences also faces challenges. For example, Riva (2007) pointed out that if there are too many details in the environment, it

will distract attention; if the scene is too abstract, it will not be immersive. Dillper (1999) warned that virtual content should avoid violence and negative emotions, which can cause anxiety. The most ideal virtual reality meditation content should guide mindfulness and regulate emotions (Valmaggia et al., 2016).

Potential Benefits of Immersive Virtual Reality

The introduction of immersive virtual reality into sitting meditation experiences has many potential benefits and advantages compared to traditional sitting meditation methods. Virtual reality technology can effectively simulate relaxing environmental scenes, such as beaches and forests, and match appropriate visual, auditory and other multi-sensory stimuli to guide users into a relaxed state and achieve the effect of stress reduction.

Virtual Reality Meditation Experience

In exploring the design principles of introducing immersive virtual reality into sitting meditation experiences, this study carefully selected four representative virtual reality meditation applications, Maloka, Nature Treks VR, Guided Meditation VR, and TRIPP, for in-depth analysis and evaluation. These cases cover a variety of experience styles and interaction modes, and can fully reflect the current status and development trends of virtual reality meditation experience design. Through a detailed analysis of these four cases, this study aims to It outlines five core design principles: guided attention, context design, interactive feedback, progressive sequencing, and personalized customization. These provide specific design directions and recommendations for optimizing future virtual reality meditation experiences.

Case Selection for the Analysis of Virtual Reality Applications in Meditation

In exploring the design principles of introducing immersive virtual reality into sitting meditation experiences, we carefully selected four representative cases, Maloka, Nature Treks VR, Guided Meditation VR, and TRIPP, for analysis and evaluation. The selection of these case projects is based on the following considerations and conditions:

- (1) They are all virtual reality meditation applications with a certain degree of popularity and influence in the current market, with a considerable user base and a certain market history.
- (2) These popular cases not only reflect the current development status of the virtual reality meditation field, but also reflect the expectations and needs of users for a good experience.
- (3) These four cases have different design concepts and functional features, presenting a diversified development. From focusing on the presentation of natural scenes to integrating AI interaction, teaching content, data analysis and other different elements, their respective development directions are different, and they can provide us with a wider perspective and design reference value.
- (4) And through continuous iteration of versions, the design has become increasingly mature and stable.

In addition, these four cases are also differentiated in terms of experience mode, interactivity, and visual style, which is conducive to our analysis and comparison from multiple angles and to summarize more comprehensive core design elements.

In general, Maloka, Nature Treks VR, Guided Meditation VR, and TRIPP, as representative cases in the field of virtual reality meditation, are the main considerations and conditions for our careful selection based on their maturity, diversity, differentiation, and representativeness, which are conducive to exploring excellent design principles that meet market and user needs.

Analysis of Virtual Reality Meditation Experiences

In the evaluation of relevant studies that incorporate meditation into virtual reality, the main application of literature reviews has explored four different virtual reality applications, namely Maloka, Nature Treks, Guided Meditation, and TRIPP. These applications have their own advantages and disadvantages in terms of visual presentation, interactivity, ease of use, and richness of content.

Program	Advantages	Disadvantages	Optimization Direction
Maloka	Rich visual presentation, strong immersion, diverse content to meet different needs, customizable meditation experience for more flexibility.	Overly strong style may cause discomfort for first-time users	Upon entering Maloka, one will grow with one's spiritual partner, and the flow of the meditation experience is relatively free to build one's own world.
Nature Treks VR	Simple operation, suitable for beginners, more acceptable vr devices, more convenient.	The interactive space is too small, and the map selection is relatively small, the interaction of animals and nature in the game also jumps out of the conventional understanding, resulting in an unnatural presentation.	Expand the explorable area so that users can freely explore more scenes. Suggest increasing the number of maps to provide a more diverse experience. Adjust the animal's behavior pattern to be more in line with the animal's habit.
Guided Meditation VR	It focuses more on the application of VR meditation, with realistic visual effect and strong sense of immersion, and the program can be used to change the screen style according to the user's preference, which is also closer to the user's preference.	Interactivity during play is relatively low, and the mode of play is relatively single.	Simple and intuitive. Bring peace, happiness and calmness back into your daily life through the meditation program.
TRIPP	Innovative experience with a strong sense of immersion, rich interactive content to meet the different needs of users, in addition to the application can track health conditions	The screen presentation tends to be sci-fi style, which takes some getting used to. Each time you experience a different scene, you need to wait for about 10 minutes to	Combines music, sight and touch to create an immersive meditation experience, multiple meditation programs, works with multiple VR devices.

Figure 1: Case Study Analysis Integration

Case Study Evaluation of Virtual Reality Meditation Experiences

In this study, a case study of four immersive VR meditation experience programs was conducted, and the results showed that all four programs provided good immersion, interactivity, and personalized experience. Among them, Maloka and Nature Treks VR have an advantage in terms of content richness.

Each of the four VR meditation programs has its own strengths and weaknesses: Maloka and TRIPP are richer in screen presentation and more immersive, but with stronger styles, which may make them uncomfortable for first-time users; Nature Treks VR and Guided Meditation VR are simpler to operate, which is suitable for beginners, but with lower interactivity and a relatively single mode of play.

After analyzing the above four virtual reality meditation programs, we have summarized the four aspects of focusing on guidance, contextual design, interactive feedback, gradual progression and personalized customization. In terms of focus guidance, the style of screen presentation should be moderate, friendly and calm, avoiding too strong and abrupt impacts on user concentration, and the operating interface should be kept simple and intuitive to reduce cognitive load. In terms of contextual design, the virtual environment should be rich in content to meet different needs and enhance immersion through realistic visual effects, while the simulation of the environment should be close to real nature. In terms of interactive feedback, appropriate interactive options can help increase participation, but the interactive content should be related to the meditation theme and be rich in multi-sensory stimulation to achieve relaxation. Gradual progression requires a well-paced flow of the meditation experience that is structured and avoids abrupt transitions that affect continuity, perhaps by designing a graded program. As for personalized customization, it is emphasized to provide users with the flexibility to customize the style of the experience, including the provision of personalized feedback suggestions based on the state of use, and the provision of multiple scenario options to meet individual needs, with the aim of maximizing the degree of personalization and flexibility of the experience. Overall, these five dimensions are designed to create an experience that is rich, immersive, interactive, engaging, logical, and tailored to the needs of the user.

Literature Summary

Stress is prevalent in modern society and affects people's mental health. Meditation has been proven to be effective in relieving stress and enhancing emotional regulation and sense of well-being, but traditional meditation methods are limited by the environment and time. Immersive virtual reality (IVR) technology can provide an undisturbed virtual environment to enhance the effects of meditation, and the environment and content of meditation can be adjusted according to individual needs.

The study begins with a review of the types, methods and benefits of meditation, including mindfulness, intuition, meditation and contemplation. These forms of meditation are designed to train attention, achieve physical and mental relaxation and emotional calmness, and alleviate the effects of negative emotions.

The study explored the definition, concept, technology and application of immersive virtual environments, and analyzed their potential benefits in meditation experiences, such as simulating relaxing environments, improving concentration, providing multiple scenarios,

providing personalized guidance, and building virtual communities. The study further analyzed four representative VR meditation apps, Maloka, Nature Treks VR, Guided Meditation VR, and TRIPP, which have their own strengths and weaknesses in terms of immersion, interactivity, personalization, and content richness.

From the literature review, it is clear that combining immersive VR technology with meditation has the potential to provide a more immersive and personalized meditation experience, which can help people to relieve stress and enhance their sense of well-being. Future research can further investigate the effects of different virtual reality technologies on meditation and how to design more effective and engaging meditation experiences.

Research Design

This study adopts a mixed research design consisting of two stages: literature review and expert interviews. The first stage was a literature review and analysis, which aimed to assess the current state of meditation and virtual reality applications in the field of healing and mental health. The researchers extensively collected and reviewed relevant academic journal articles, books, and other literature to explore the theoretical foundations, practical applications, and potentials and limitations of the combination of meditation and virtual reality. Through the results of the literature analysis, a set of potential design principles for virtual reality-assisted meditation was summarized. In the second stage, semi-structured interviews were conducted with experts and scholars with relevant professional backgrounds in meditation guidance, VR development and application to provide feedback on the preliminary design principles. The interviewees came from the academic, industrial and practical fields to ensure the diversity of research perspectives. During the interviews, open-ended questions were asked to guide the experts' views on the feasibility, practicality, and other potential design considerations of the principles, and the expert feedback was explored in depth. The interviews were audio-recorded and transcribed verbatim by the researchers. The research team used thematic coding analysis to extract key themes and design principles from the interviews through open coding and thematic summarization. The researcher will then review and revise the data with experts' opinions, and finally form a set of specific design principles for the virtual reality-assisted meditation system, which will serve as a guideline for the development and application of the system in the future.

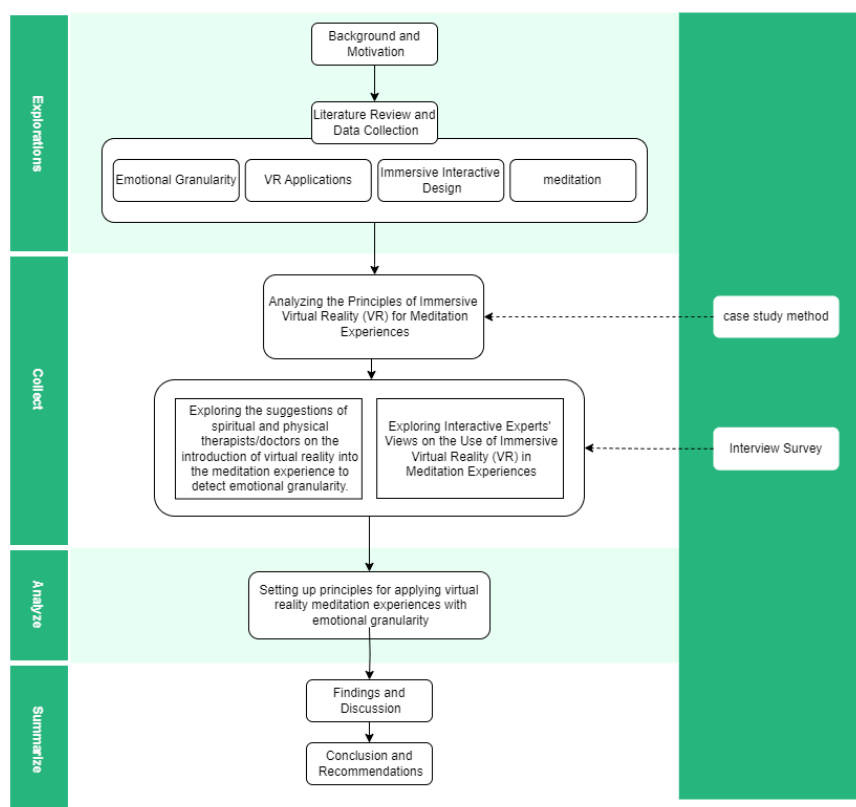


Figure 2: Research process

Semi-structured Interviews

Semi-structured interviews were conducted to collect experts' views and opinions. SIX experts with expertise in the fields of meditation and virtual reality were invited to conduct interviews covering the following topics:

- Perceptions of the integration of meditation and virtual reality
- Design recommendations for VR-assisted meditation systems
- Future perspectives on VR meditation solutions

Interviewees were required to have at least 3 years of research or practice experience and in-depth knowledge of the application of the integration of meditation and VR. The interview process included obtaining informed consent from the interviewed experts, conducting the interview, recording the interview, and analyzing the interview data.

Interview	Relevance	Target Field	Title
Expert A	Positively Relevant	Digital Immersion Technology	Digital Immersion Specialist
Expert B	Positively Relevant	Digital Immersion Technology	Digital Immersion Specialist
Expert C	Positively Relevant	Digital Immersion Technology	Digital Immersion Specialist
Expert D	Positively Relevant	Psychotherapy/Meditation	Meditation Specialist
Expert F	Positively Relevant	Meditation	Meditation
Expert E	Positively Relevant	Psychotherapy	Psychotherapist

Figure 3: Interviewee Information

Research Evidence

The interviews revealed that the psychotherapist interviewed found meditation very helpful and relaxing even for a short period of time. The type of meditation he practiced focused on breathing and relaxation training, which is different from religious meditation. This type of meditation, which is aimed at relaxation and awareness, helps to focus on the overlooked details of daily life. In the field of psychotherapy, meditation is often regarded as an effective stress reliever.

In his clinical practice, the interviewee would recommend meditation to his anxious patients for relaxation. He pointed out that he would adopt a step-by-step approach to lead the patients to meditate, gradually increasing the level of difficulty according to the condition of the case, and making use of factors such as different spaces and time duration to make adjustments in stages. This kind of systematic and tailor-made guided meditation helps patients to gradually build up a habit of meditation. However, respondents also found that patients in general encountered great difficulties in sustaining their meditation practice, mainly due to factors such as venue constraints and lack of instructors. To cope with this, he suggested patients to choose a place where they would not be disturbed; and reminded patients with anxiety to avoid choosing a quiet environment to avoid sudden noises that would aggravate their emotional fluctuations.

Interviews	Expert Opinion
Virtual Reality (VR) Technology Brings Innovative Possibilities for Sitting Meditation	<p>VR Meditation: Pros and Cons VR offers an immersive meditation experience through multi-sensory stimulation (sight, sound, etc.) and customizable environments, making meditation more accessible and engaging. Mobile VR increases flexibility.]</p> <p>Data tracking allows users to adjust their meditation in real-time and optimize long-term practice through data analysis. VR's programmability helps build meditation habits.</p> <p>Spiritual expert E cautions that VR might not fully replicate a traditional setting and could hinder real-life practice. He emphasizes meditation's focus on mind-body connection, not just visuals.</p> <p>Psychotherapist F sees VR's potential, especially for simulating natural environments and attracting newcomers. However, she emphasizes VR as a complementary tool, with inner awareness remaining key to achieving lasting peace.</p>
Suggestions for Introducing Virtual Reality (VR) Technology to Sitting Meditation	<p>Digital Immersion Expert A : VR meditation experience should be highly personalized with rich environment options and fine-tuning to meet user preferences. Utilize multi-sensory stimuli (visual, auditory, tactile) to enhance sense of presence and relaxation. Interactive elements can increase enjoyment and passion for meditation.</p> <p>Digital Immersion Expert B : Expects better physiological data tracking systems to <u>analyze user's</u> meditation state through brainwaves, heart rate, etc. and <u>adjust environment</u> accordingly for optimal experience. Long-term, combine AI algorithms for personalized virtual meditation scenes based on big data analysis.</p> <p>Mind Healing Expert D : Any technology must align with meditation's core purpose - self-awareness and natural mind-body connection. Incorporate traditional elements like pious atmosphere, natural scenery, quiet environments into virtual scenes to avoid overly visual stimulation detracting from essence. Consider combining real-life practice with VR to transfer virtual awareness to daily life.</p> <p>Psychotherapist F : Clinically, VR meditation should integrate into comprehensive psychotherapy, not standalone therapy. Use <u>as introductory</u> stage to help patients understand meditation and develop concentration, then gradually transition to traditional real-world practice applying learned awareness. Carefully evaluate program applicability as some patients may have adverse reactions.</p>

Figure 4: Highlights of the interview

Research Analysis and Findings

According to the interviews, digital immersion experts and spiritual healing experts have different views and considerations on the application of virtual reality to sitting meditation. The psychotherapists, on the other hand, put forward their views and suggestions on traditional meditation and virtual reality meditation from the perspective of clinical practice.

Digital immersion experts are optimistic that virtual reality technology can create an immersive and highly immersive experience for meditation, which can help improve concentration and relaxation. Virtual environments can be customized according to individual preferences, providing the ideal multi-sensory stimulation. The interactive design adds interest and attracts more people to develop a meditation habit. The lightweight device makes it easy to meditate anywhere, and the data tracking function optimizes the experience.

Spiritual healing experts question whether virtual reality can truly restore the atmosphere and energy of traditional meditation, worrying that prolonged use will affect the spiritual content of the practice and make it difficult to face the real environment after over-reliance. Therefore, they advocate that virtual reality meditation should be appropriately integrated into real-life practice, emphasizing the mind-body connection and guiding the awareness of inner breathing and energy rather than visual stimulation. They also pointed out the need for professional planning to integrate virtual design with habit formation.

The psychotherapist shared his practice of meditation aimed at breathing and relaxation, saying that meditation helps to focus on the overlooked details of daily life and is an effective way to relieve stress. In the clinic, he would adopt a step-by-step, tailor-made approach to lead anxious patients to meditate, but found that it was often difficult for patients to practice consistently due to factors such as venues and instructions.

As a result of the interviews, the psychotherapist believes that virtual reality meditation has a certain degree of applicability, allowing users to create a suitable environment on their own, helping those who find it difficult to relax, and serving as an introduction to learning. However, it is also necessary to consider how to realize what they have learned after leaving the virtual space. To enhance the experience, he suggested utilizing multi-sensory stimulation, establishing learning transfer between virtual and real worlds, and using technology to provide real-time feedback, which are worthy of in-depth study and implementation. Summarizing the views of the three parties, virtual reality technology does have the potential to enrich the meditation experience, but it needs to be designed in a way that weighs all considerations and takes into account both technological innovation and traditional spiritual connotations, with the pursuit of the overall enhancement of the body, mind and spirit as the ultimate goal.

Conclusion

Contemporary people are facing a lot of pressure in life, poor emotional regulation and accumulation of negative emotions. Meditation is an effective way to enhance mental health, but the traditional model has limitations. This study aims to explore the integration of virtual reality (VR) technology into the meditation experience, and to propose the principles of designing a VR-assisted meditation system in order to innovate the meditation experience. The study began with a literature review to assess the current status of meditation and VR in the field of healing mental health. Semi-structured expert interviews were conducted to understand practitioners' perceptions and recommendations on the use of VR technology in meditation.

The results of the study revealed that VR technology can significantly enhance the immersion of meditation and has high potential to be combined with traditional meditation techniques. Based on the results of this study, five core design principles for a virtual reality-assisted meditation system were proposed: (1) focus-guided principle, (2) contextual design principle, (3) interactive feedback principle, (4) gradual progression principle, and (5) personalization principle.

These principles aim to maximize the complementary effects of VR on the meditation experience and provide guidelines for system development and design applications in this area. The principle of focus-guidance emphasizes that the presentation style should be moderate and friendly, and the user interface should be simple and intuitive to avoid affecting

the user's focus or creating cognitive load. The Contextual Design Principle requires that virtual environments be rich, diverse, and realistic, providing a high degree of immersion and simulating real natural scenes. The Interactive Feedback Principle suggests that an appropriate level of interactive design can help increase engagement, but the content should be related to the meditation theme and be rich in sensory stimulation for relaxation. The principle of gradual progression requires a well-paced and organized flow of the meditation experience, or a graded program can be designed. Finally, the principle of personalized customization emphasizes the flexibility of providing users with the ability to customize the style of the content, including personalized feedback suggestions based on the state of use as well as a variety of scenario options, in order to make the experience highly personalized and flexible. These five design principles are intended to create a rich, immersive, interactive, engaging, logical, and customized virtual reality meditation experience for users. It is hoped that this set of principles will lead to innovative VR meditation solutions that will help the public to relieve emotional stress, develop good emotional regulation skills, and in turn promote overall mental health.

Contemporary research has shown that the integration of Virtual Reality (VR) technology into meditation has innovative potential, but also faces some challenges. In order to maximize the benefits of VR to the meditation experience, the researchers proposed a set of five design principles for VR-assisted meditation systems, which serve as guidelines for system development and design applications in this area.

These five principles are the principle of focused guidance, the principle of contextual design, the principle of interactive feedback, the principle of gradual progression, and the principle of personalized customization. The principle of focus and guidance requires a moderate and friendly style of screen presentation, a simple and intuitive interface, and the avoidance of sudden visual or operational disturbances that may affect the user's ability to concentrate. The contextual design principle emphasizes that virtual environments should have rich and diverse content options and highly restored visual effects to enhance the sense of immersion, while the environment simulation should be close to the real natural landscape. The Interactive Feedback Principle suggests designing appropriate interactive options that are related to the main theme of meditation and provide multi-sensory stimulation to enhance user participation. The principle of gradual progression requires that the flow of the meditation experience be designed with a good sense of rhythm, with a clear structure and avoiding abrupt transitions that affect the continuity of the experience, or a gradual progression of the course can be designed in different levels. Finally, the principle of personalization advocates that the system should be highly flexible, allowing users to freely adjust the content style, virtual scenery and other elements, and give personalized feedback suggestions based on the use of the situation, so that the overall experience has the maximum degree of personalization and flexibility.

This set of principles provides a clear guideline for the development of virtual reality meditation systems. On this basis, future research can explore in depth the impact of different design elements on the effect of meditation, and actively develop a better application system, which can only be promoted and applied to the general public after rigorous clinical trials to assess its effectiveness, helping more people to relieve stress, develop emotional regulation, and promote overall physical and mental health.

Acknowledgements

I would like to thank my advisor, Professor Wen-Shan Chang. He was always patient in answering my questions and encouraged me to explore boldly.

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Contact email: nianhao0906@gmail.com

Space Producing and Time: Spatiotemporal Concepts in Linear and Cavalier Perspectives

Nuo Cheng, University of Dundee, United Kingdom

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

It is known that the linear perspective was a significant invention of the European Renaissance, while the cavalier perspective which reverses the linear perspective vision has been applied in traditional Chinese painting for thousands of years. The divergence of perceiving spatiality between Chinese and European art formed in this age. Concerning the representation of space in images, the process of constructing different perspectives not only represents different spatial perception but also is inextricably linked to the correlation between space and time. The role that the cognition of 'time' and 'space' plays in culture formatting is a significant impetus for shaping different approaches to viewing the space of the world in Renaissance art and Chinese painting. The applications of linear and cavalier perspectives, therefore, appear as the artistic epitomes of the spatiotemporal conceptions in the Eastern and Western cultural contexts, which are affected by cosmology, epistemology, philosophy, religion, etc.

Keywords: Spatiotemporal Concepts, Linear Perspective, Cavalier Perspective, Space Production

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Introduction

Linear perspective was invented in the European Renaissance for creating and organizing spatiality geometrically in painting and architecture, based on the development of scientific technology, humanism, and rationalism. It makes one's vision converge on the fixed 'vanishing point' and 'distance point' with the aid of a nonary grid for fixing the eye focus and creating a three-dimensional space in painting composition and architectural construction. It is this single-point perspective vision that ushered in a linear and static viewing way.

The 'cavalier perspective', which reverses the foreshortening of linear perspective space and presents space in a two-dimensional planar form by using orthographic projection and panoramic composition, has been applied as a significant compositional format in Chinese painting for thousands of years. A dynamic viewing way is required for creating a continuous and infinite vision. Typically, the application of the cavalier perspective can be found in landscape, architectural, and narrative paintings.

For instance, the convergence of vision on a vanishing point exhibited in Masolino da Panicale's work *The Healing of the Cripple and Raising of Tabitha* (Figure 1) is a perfect exemplification of the linear perspective space. In comparison, in Qiu Ying's handscroll *Along the River During the Qingming Festival* (*Qingming Shanghe Tu*, Figure 2), the space is depicted as a sequence in which all scenes are displayed simultaneously despite different times and positions. Rectangular buildings in this painting are aligned toward the same parallel oblique angle of recession instead of convergent in a foreshortening trend. Thus, during the Renaissance, a striking divergence of notions of spatial perception derived from linear perspective appeared between Chinese and European art.

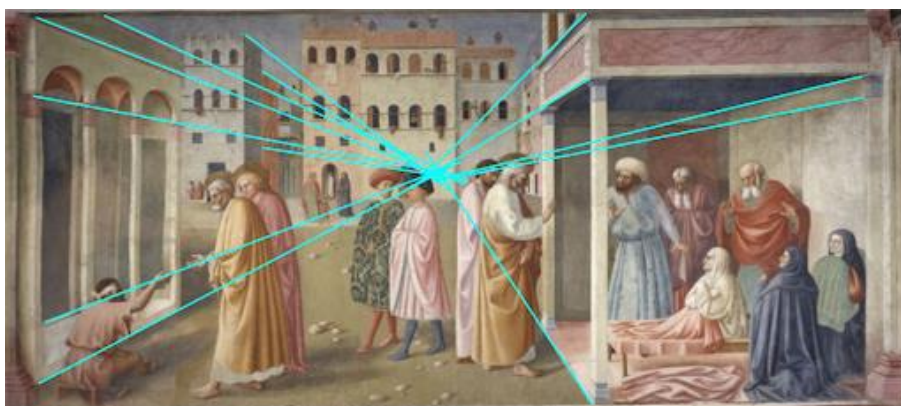


Figure 1. Masolino. (1426-27). *The Healing of the Cripple and Raising of Tabitha* [Fresco]. Cappella Brancacci, Santa Maria del Carmine, Florence, Italy.

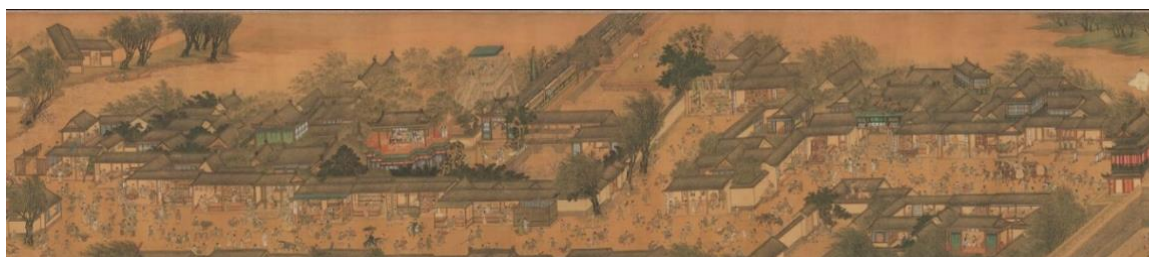


Figure 2. Qiu, Y. (Ming Dynasty). *Along the River During the Qingming Festival* [Handscroll painting]. Liaoning Provincial Museum, Shenyang, China.

Closely linked with space-producing, the process of managing different perspectives in image represents diverse patterns of spatial perception. The understanding of time, as engendered by cosmology, epistemology, religion, and science, also plays an important role in shaping the visual forms of spatiality. The conceptions of 'time' and 'space' contribute to culture formation. The applications of linear and cavalier perspectives appear as the artistic epitome of the spatiotemporal conceptions in the Eastern and Western cultural contexts.

This paper compares the spatiotemporal conceptions conducing to the formation of linear and cavalier perspectives in European Renaissance art and traditional Chinese painting. Exploring both the cultural-historical origin of the different spatiotemporal concepts in the East and West as well as the overlap between them. It discusses the roles linear, cyclical, and spiral temporal conceptions play in the European and Chinese ways of perceiving and producing perspectival space, as influenced by cosmological, religious, epistemological, and scientific factors. This particular focus will additionally extend to the Western and Chinese linguistic structures that contribute to their different cognitions of time and space.

1. Linear Temporality in the Linear Perspective

From ancient Greece to the late Renaissance, time and space in traditional Western interpretations were theologically associated with the existence of God who created the universe with time incidental. This can be firstly traced back to the Aristotelian definition of time as a continuous 'quantity' which exists as an 'accident' of reality. Inspired by Aristotle, the Medieval theologist Saint Augustine then defined time as a creation of God who is the 'divine eternity' existing as a 'never-ending present' in his *Confessions*. This idea also implies his inclination towards linearity and irreversibility of time with his accentuation of 'present'. The Augustinian temporal concept laid a theological foundation for the Renaissance linear thought on time and space. Time and space were also quantified in the physical and mathematical realms, as in Galileo Galilei's theory of free fall, the test of gravity fulfils the quantification of space and time. More notably, time and space were ontologically separated as two independent objects with material and spiritual regards. This explicit demarcation was established by Cartesian dualism, according to which space refers to the objective outer world while time belongs to the realm of thinking that is opposed to the objective realm. The space-time separation later reappeared in Isaac Newton's physics of the relative and absolute time and space as split into a quantifiable and humanly perceivable aspect and an imperceptible aspect of the mathematic realm.

The scientific and theological factors were the most remarkable impetuses for forming the concept of linear time in the West. In the early Medieval period when the cathedral bell had not been replaced by the town clock, time was announced via sound which shaped our life into a daily round. However, the advent of the mechanical clock in the later Middle Ages made time a visible matter measured by the eye. It is the visibility imposed on time that drives time to progress in a linear way as a line, since the eye, as a measurement of the world entitled by physicists and geometricians, is able to transform the world into 'a piece of visibility' from a measurable horizontal viewpoint (Romanyshyn, 1989, p 99). Moreover, the clock was also bonded with Christianity as the clock embodies the cosmic system, thus the clockmaker epitomizes God who creates the world, and the Christian idea of time is that of, as claimed in Judeo-Christianity, a 'continuous linear redemptive time-process, the plan of redemption is a divine drama enacted on a single stage without repeat performance' (Needham, 1965, p 47). The concept of visible time engendered by the invention of clock and the invasion of scientific technology paved the way for the quantitation of time and space.

As a product of science and technology and rationalism, linear perspective realized a transformation from a qualitative dimension to a quantitative dimension regarding not only space but also time. In the early time of linear perspective, a physical grid was needed for fixing the painter's eye focus and organizing geometrical space, termed a "window" by the Italian Renaissance artist Leon Battista Alberti (Figure 3). This 'window' established a static viewing way by fixing one's vision on a certain viewpoint. It also set up a demarcation between the viewer and the world, as what Descartes did, defining the world as an objective and quantifiable object that is looked at by the subjective viewer. Seeing through this window, all existences in the world are homogeneously geometricized and reduced to the horizontal depth.

Akin to the visualization of time caused by the mechanical clock, linear perspective is an invention that led the space of the world to be a matter of the eye. The horizon preestablished in the linear perspective vision implies the distant end of the horizontal vision and space. Meanwhile, the fixed vanishing point becomes the endpoint of an event or a piece of landscape. Time, which here is regarded as a linear single path with clear beginning and end points, freezes and reaches its culmination at the vanishing point.

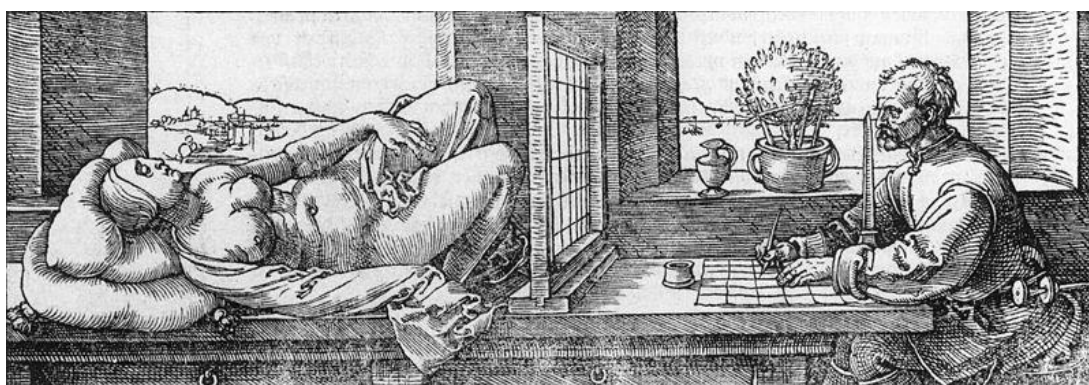


Figure 3. Dürer, A. (1600). *Draughtsman Drawing a Recumbent Woman* [Woodcut print]. The Metropolitan Museum of Art, New York, United States.

2. Spatiotemporal Concepts in the Cavalier Perspective

Unlike traditional Western understandings, time and space in traditional Chinese thought are inseparably bonded as a unified whole instead of two separate objects. For instance, the Chinese characters *yu* (宇) and *zhou* (宙) respectively denoting space and time constitute the word *Yu Zhou* (宇宙) that corresponds to the English word 'universe' or 'cosmos'. From the formation of characters, we can notice that Chinese cosmology is an embodiment of the unification of space and time. Based on the space-time correlation in cosmology, astronomical systems were designed with the correlation of heaven and earth, time and space, since ancient Chinese astronomers believed that the change of celestial phenomena foretold the fortune and misfortune of the corresponding earthly places. In addition, the ancient Chinese seasonal rules also followed the inseparable connection between spatial and temporal cognition where each of the five directions corresponds to a season.

Influenced by the deeply rooted spatiotemporal concepts, the cavalier perspective was generated and used in representing spatiality in traditional Chinese painting, which took dominance in visual art for thousands of years. Typically, the successive compositional form created by the cavalier perspective manifests the connection of time and space. Landscapes, architectural complexes, and figures situated at different locations and times are represented simultaneously in a successive long scene. This spatial arrangement downplays the specificity

and distinction of time and space, while stressing equality and unification between space-time and humans.

The cavalier perspective applied in traditional Chinese painting is inclined to convey the circular and spiral trajectory of space-time and change. This understanding of spatiotemporal motion can be traced back to the thoughts in the *Book of Changes*, Taoism, and the variant of Buddhism. According to the *Book of Changes*, everything in the world follows successive temporal orders and changes according to their corresponding hexagrams, circularly repeating and renewing themselves, such as the alteration of sunrise and sunset, the four seasons, the death and rebirth, and so on. However, this cycle contains waxing and waning, discontinuity, retreating, and final returning, implying a cumulative advancing progress. Inspired by the *Book of Changes*, the Taoist attitudes toward time and change also deliver the concept of circularity with the connotation of a spiral trend, which can be detected from Chuang Tzu's statement, saying that 'The succession of decline, growth, fullness, and emptiness go in a cycle, each end becoming a new beginning' (Chan, trans., 1969, p 206). In Sino-Buddhism, it is believed that life is endlessly circular and recycled via reincarnation, everything in the world renews itself repeatedly by replacing the decayed and dead version of itself. The above schools of thought provided a theoretical basement for the visualisation of space which is formed via the cavalier perspective.

The cavalier perspective space, typically represented in landscape painting, becomes the artistic embodiment of circular-spiral temporality. Regardless of the changing seasons, times, and distinct locations, the natural landscape is always depicted as its general state without specificity. It is the absence of specificity of differences and changes that conveys the law of nature as a cycle, within which everything in the world is repeating and eventually going back to the starting state. Moreover, in landscape painting, the mountain is the main body of the painting, the process of appreciation drives the viewer's vision to move from the distance to the near scenery and then back to the distance, that is, the main object turns to the secondary scenery and then returns to the main body (Figure 4). This back-and-forth viewing way implies the correlation between spatial and temporal perceptions and suggests the transcendence from the natural landscape to the artist's spiritual contemplation. Viewing from the far to the near and then back to the far is a circular return, while within which a changeable upward spiral trace is included, testifying to a circular-spiral spatiotemporal trajectory in traditional Chinese landscape thought.

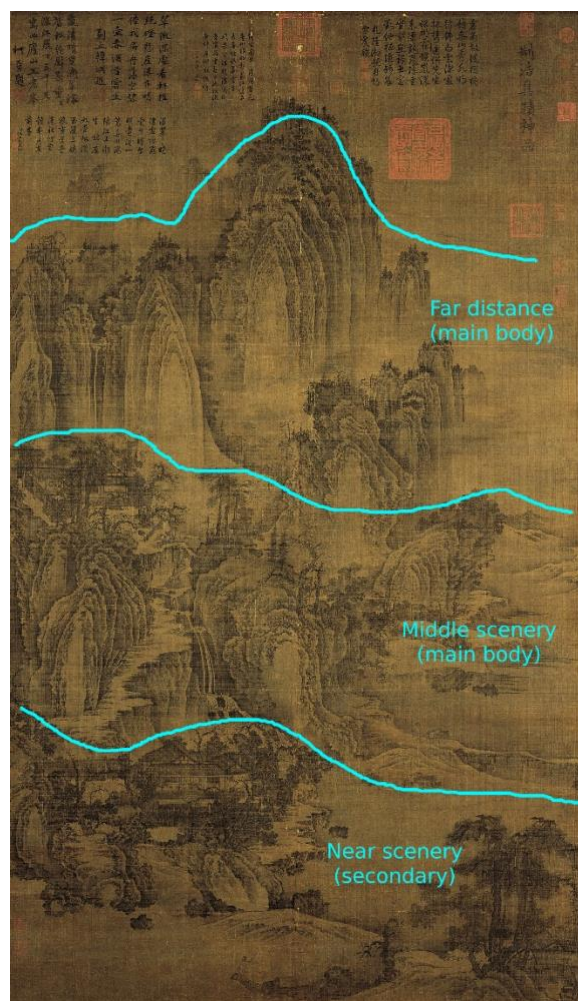


Figure 4. Jing, H. (Five Dynasties and Ten Kingdoms). Mt. Kuanglu [Handscroll painting].
Palace Museum, Taipei, China.

3. Spatiotemporal Concepts in Linguistic Expressions

In addition to the epistemological, cosmological, and religious notions, linguistic expressions also play an important role in moulding different spatiotemporal concepts in the East and the West. Describing time from the linguistic point of view with the participation of spatial metaphors ‘encourages structural alignment between the two domains and may cause relational structure to be imported from space to time’ (Boroditsky, 2001). This comparison is typically manifested in English and Mandarin linguistic systems.

In the English language, horizontal terms, such as “forward” and “behind”, “last” and “next”, appear more frequently for spatial-temporal description. For example, we say “look forward”, and “last/next week”, this speech conveys a horizontal linear temporal progress. In comparison, vertical metaphors, such as “up” and “down”, in Mandarin we say “shàng” and “xià”, are more frequently employed in the description of space-time in Mandarin to describe the temporal order of weeks, months, and events. For instance, “last/next week” in Mandarin is “shàng/xià zhōu”, that is “up/down week”. Therefore, English speakers show a horizontal bias in conceiving time, while Mandarin speakers are inclined to think about time in a vertical way.

One of the properties of linear perspective shows that diverse dimensions of depth are homogenized and quantified by geometrical measurement and eventually reduced to a

horizontal depth. This trait is analogous to the horizontal way English speakers understand space and time, while the cavalier perspective in Chinese landscape painting which accentuates multiple perspectives and back-and-forth dynamic vision is consistent with the vertical-biased Chinese linguistic system.

Conclusion

In conclusion, time and space bear inseparability and correlation in both Western and traditional Chinese thought when it comes to constructing spatiality in visual art. The different perspectival representations do not merely hinge on the retinal nature and spatial perception, but also on the different concepts of time as well as linguistic systems. All these factors that shape different spatiotemporal cognitions are essentially attributed to the diverse conceptual apparatus shaped by cultural-historical distinction.

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Contact email: chengnuo113@gmail.com

***Exploring the Adaptability of Older Adults to Virtual Reality (VR) Through
Experiential Teaching Courses***

Cheng-Jia Chuang, National Yunlin University of Science and Technology, Taiwan
Chang-Franw Lee, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

As the global population of older adults continues to grow, the use of technology products by older adults has become a trend. Virtual Reality (VR) technology, as an innovative tool for learning and entertainment, may present certain challenges for older adults. The purpose of this study is to explore the adaptability of older adults in operating VR games, including the problems encountered in operation, the level of understanding of game mechanics, and the experience of wearing the device. Through the design of a VR experiential teaching courses for older adults, which breaks down game movements and uses props for practice, this study aims to help older adults become more familiar with and accepting of VR, thereby enhancing their interest and enjoyment in VR. This research employs methods such as literature review, participant background surveys, observation method, post-course group interviews, and community manager interviews to gain an in-depth understanding of older adults' specific experiences with VR in the course. The findings of this study reveal the adaptability issues older adults face when using VR for gaming and propose suitable VR teaching courses designs and teaching methods for older adults, with the goal of promoting their learning and acceptance of new technologies.

Keywords: Older Adults, Virtual Reality, Teaching Courses

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Introduction

With advancements in medical care and public health, human life expectancy has significantly increased. According to the United Nations, the global population of older adults is projected to reach 1.6 billion by 2050 (United Nations, Department of Economic and Social Affairs, Population Division, 2022). As the aging population accelerates, society will face numerous challenges such as labor shortages, healthcare, long-term care, and social security. The physical and mental health, social participation, and quality of life of older adults require targeted solutions.

In response, the government of our country has adopted the WHO's framework for a healthy aging society (1. Adapt health systems to the aging population they now serve, 2. Develop long-term care systems, 3. Create age-friendly environments, 4. Improve measurement, monitoring) by formulating five countermeasures for a super-aged society: 1. Enhance health and care, 2. Promote participation and vitality, 3. Foster digital literacy and joyful learning, 4. Ensure accessibility and independence, 5. Stimulate industries and secure financial resources. Among these, the concepts of digital literacy and joyful learning are included in the policy framework, aiming to promote social participation and quality of life for older adults through technology and learning activities. Digital literacy and joyful learning are seen as key elements in promoting social connections (National Development Council, 2022).

The application of digital technology can expand the social circles of older adults, providing new avenues for learning and entertainment, thereby fostering connections and exchanges within and outside the community. Learning new things is considered one of the factors towards successful aging (Sayago, 2012). Through continuous learning, older adults can continually expand their skills and knowledge, enhancing their adaptability and mental resilience, thus adapting to social and technological changes. Learning new things is not only about keeping up with societal changes but also a process of self-actualization. According to Maslow's hierarchy of needs theory (1943), through learning new things, older adults can fulfill needs for self-esteem, achievement, and self-worth, contributing to a richer and more meaningful later life.

With the advancement of technology, products that assist with learning, living, and healthcare have emerged. Among technology-assisted learning products, VR technology offers new channels for learning, socializing, and entertainment for older adults. VR allows older adults to focus more on learning situations and benefit from them. VR-assisted learning activities are expected to become one of the effective means to promote learning, enhance social interactions, and improve the quality of life for older adults (Syed-Abdul et al., 2019). Despite the potential benefits of VR technology in providing new learning, social, and entertainment channels for older adults, they may face many difficulties and challenges when learning something new for the first time, especially with the novel VR technology. Therefore, this study aims to observe and record the problems and difficulties encountered by older adults in the process of learning to use VR through a VR experiential teaching courses, as well as the changes in their emotional and psychological states such as confidence during the process.

Existing VR systems are mostly not designed to meet the needs of older adults' population, and there may be adaptability issues in their use by older adults. Therefore, the purpose of this study is to explore the adaptability of older adults in operating VR games, including the problems encountered in operation, the level of understanding of game mechanics, and the

experience of wearing the device. Through methods such as experimental VR experiential teaching courses, observation, group interviews, and expert interviews, this study aims to understand the situations and reasons for problems encountered by older adults when using VR in the experiential courses. By summarizing, integrating, and analyzing the data, the study proposes suggestions for the content and methods of future VR introductory courses for older adults.

Older Adults and Technology

With the rapid development of technology, older adults face the challenge of learning and adapting to new technologies. Many older adults feel psychological burdens such as anxiety and fear when using smartphones, tablets, computers, and other technological products due to a lack of confidence or knowledge and fear of causing damage. Compared to complex technological products, older adults find simplified technology products easier to use (Vaportzis, Clausen, & Gow, 2017). Additionally, age-related cognitive declines, such as slower information processing speeds, reduced working memory capacity, and decreased attention capabilities, are often considered factors that affect older adults' ability to learn new technologies (Isabelle, 2022). However, older adults generally hold an open attitude towards learning new technologies, believing it is necessary to stay connected with societal developments and to fully utilize the benefits brought by technology (Pihlainen et al., 2022).

VR and Older Adults

The development of VR technology provides older adults with a novel way of learning and entertainment. Research indicates that VR technology can serve as a tool for older adults to engage in physical exercise, encouraging them to participate in daily activities and offering a positive new experience (Syed-Abdul et al., 2019). However, a common issue with VR use is the occurrence of motion sickness, which can cause dizziness and nausea during prolonged use. Although the incidence is low among older adults, it can severely impact their experience and may lead to a greater reluctance to use this technology. Therefore, it is crucial to develop highly immersive VR environments with integrated sensory synchronization to reduce this risk (Liu, Cai, & Wei, 2021). Past studies have used relatively outdated equipment, which may have contributed to a higher incidence of motion sickness due to issues with user experience, comfort, and wearability. By adopting newer VR equipment, the occurrence of motion sickness during use may be reduced (Appel et al., 2019).

Educators should rethink the design of experiential teaching courses to meet the learning needs and preferences of older adults. Knowles' (1990) theory of adult learning suggests that adult learners (including older adults) want to take responsibility for their learning, have a rich experience base, and prefer problem-centered learning approaches (Boulton-Lewis, 2010). When learning new skills, older adults may require more time and practice, and their practical life needs drive their motivation to learn (Syed-Abdul et al., 2019). Therefore, teaching activities should connect with learners' real-life situations and provide opportunities for social interaction (Sayago, 2012). Additionally, engaging in enjoyable and relaxing activities has been identified as a factor that promotes health among older adults. Therefore, instructional design should consider incorporating fun, stress-free, and step-by-step activities to enhance older adults' interest, learning motivation, and efficiency (Jeng, Pai, & Yeh, 2016).

Methodology

This study explores the impact of VR on older adults by understanding through literature review how VR can provide immersive experiences, increase enjoyment and interest, and thereby enhance learning willingness and motivation, leading to improved learning efficiency. The purpose of this study is to investigate the adaptability of older adults in operating VR games through experiential teaching courses, employing experimental methods, group interviews, and expert interviews.

Participants

This study recruited 20 community-dwelling older adults aged 65 and above with normal physical functions, no severe myopia or hyperopia, and no severe motion sickness.

Equipment Platform and Courses Tools

This study used the Meta Quest Pro as the experimental equipment platform. Based on literature review, a music rhythm game, Beat Saber, was selected for the courses content due to its intuitive game and lack of complex operational processes. The game parameters were adjusted to not restrict swing direction, to prevent failure from missed swings, and to reduce block speed, thereby lowering the learning threshold. The courses used instructional aids to help older adults understand game concepts. The aids included: 1. Controller Handle Prop: Simulates the grip, click, and swing operations of the controller. Produced using 3D printing (FDM). 2. Game Interface Prop: Simulates the game interface by demonstrating the blue buttons (interface) to be clicked, helping older adults understand the interface operation. The game interface was captured and printed on cardboard. 3. Red and Blue Lightsaber Props: Simulates the way to swing the lightsaber in the game, helping older adults understand how to hit the incoming blocks. Made by printing and rolling paper into stick shapes. 4. Red and Blue Block Props: Simulates the way to swing the lightsaber in the game, used with the red and blue lightsaber props. Game images were captured and printed on cardboard. 5. 21.5-inch Portable Monitor: Displays the Games screen inside the VR headset during teaching, helping other older adults intuitively understand the game progress and the Games of other participants. The monitor also allows researchers to grasp the actual operation status of the older adults through the screen.

Design of Experiential Teaching Courses

The courses activities span two weeks, with lessons held once a week, each lasting two hours. Each lessons includes a courses introduction, VR equipment and game operation instructions, VR experience, group interviews, and courses process (Figure 1). To understand the learning and teaching status of the older adults, "Group Interviews and Expert Interviews" are conducted after the "VR Game Experience". The interviews cover five aspects: teaching methods, equipment experience, game experience, psychological emotions, and courses recommendations. (Table 1). To optimize and adjust the courses for better adaptation by older adults, expert interviews are conducted after the first lessons.

First Lessons: The learning objective of the first lessons is to introduce older adults to VR and help them gradually become familiar with it. Therefore, the game difficulty is adjusted by reducing the game speed to 30%.

Second Lessons: The learning objective of the second lessons is to allow older adults to experience the enjoyment of VR. Thus, the game difficulty is adjusted by reducing the game speed to 70%. Additionally, competitive games and a lottery segment are included to enhance the fun and incentive of the game, thereby increasing the learning motivation and interest of older adults.

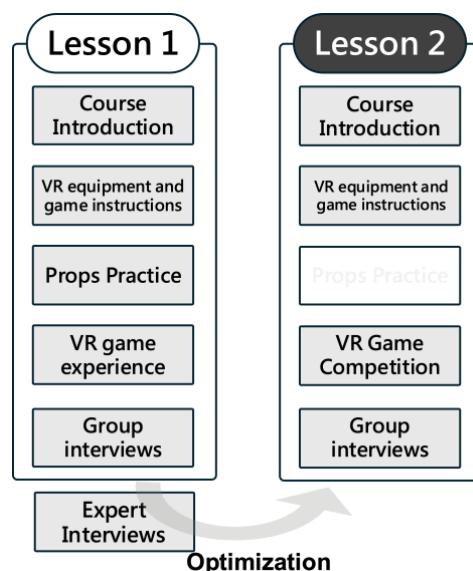


Figure 1: Courses process.

First lessons	Second lessons
1. How do you feel about the teaching method and the experience of using the equipment?	1. How do you feel about using the VR headset and handlebar after the last lessons?
2. How do you feel about the screen and teaching aids?	2. Compared with last week, do you feel more powerful or changed in playing VR games?
3. How do you feel about the VR headset?	3. How do you feel about the operation experience compared to last week?
4. How do you feel about the VR handlebar?	4. How do you feel about the difficulty of the game?
5. How do you feel about the game experience (playing)?	5. How did you feel during the game? How did you feel during the game? How did you feel during the game?
6. What conditions affected your mood during the experience?	6. How did you feel after adding the competition component?
7. What do you think could be improved to help you learn or enhance the experience?	7. How do you feel about the more props and the adjustments to the narration this time?
	8. If you are an older person who has never played VR before, what do you think will be the effect of learning through this course?
	9. What are the shortcomings or deficiencies of this courses and what do you think can be improved?

Table 1: Group interviews.

Results

This study focused on 20 community-dwelling older adults aged between 68 and 90 years, with an average age of 80.6 years. Through two lessons of experiential teaching courses, the study explored the adaptability issues faced by older adults when using VR for game operation (physical movements, device wearing). The following results were obtained through induction and analysis.

First Lessons

Using a presentation to assist with VR equipment and game operation instructions, the courses covered the game flow (Figure 2). The instructor demonstrated the VR game flow and guided older adults in practicing with controller handle props. After practicing, the older adults began their VR experience. During the game process, it was found that: 1. Most participants could identify whether the device was worn correctly and felt comfortable, although some reported initial discomfort and fear, with one experiencing mild dizziness. 2. Participants generally could not immediately find the white guiding line, but with reminders to turn their heads down and lift their hands, they could correctly locate it. 3. Participants found it challenging to use wrist movements to aim the controller at the interface start button accurately. 4. Participants found it difficult to avoid accidental button presses on the controller, leading to unintentional actions outside the interface buttons. 5. Participants had trouble understanding the swinging action but gradually improved with prompts and guidance.



Figure 2: The course covered the games flow.

Second Lessons

Analyzing the issues and conditions from the first lessons, three key points were identified: 1. Lack of understanding of the game process concept. 2. The vocabulary used in teaching did not match the older adults' usual language habits, such as interface button colors and swinging actions. 3. The meaning and interaction concepts between objects were unclear.

In response, the courses process for the second lessons was adjusted (Figure 3) to help older adults better understand VR games. Due to competition (two rounds) and time constraints, there was no practice game operation in the second lessons. After adjusting the courses process, it was found that: 1. Participants felt more accustomed to the device, with no discomfort or dizziness. 2. Participants better understood turning their heads down and lifting their hands to find the white guiding line, quickly locating it in the second round of the competition. 3. Participants better understood the need to aim before clicking, with most achieving more accurate actions. Those requiring assistance were able to operate independently by the second round. 4. Accidental button presses decreased, although some

older adults still experienced this issue, which improved in the second round. 5. Most participants could perform the swinging action, with all mastering it by the second round and continuously improving.

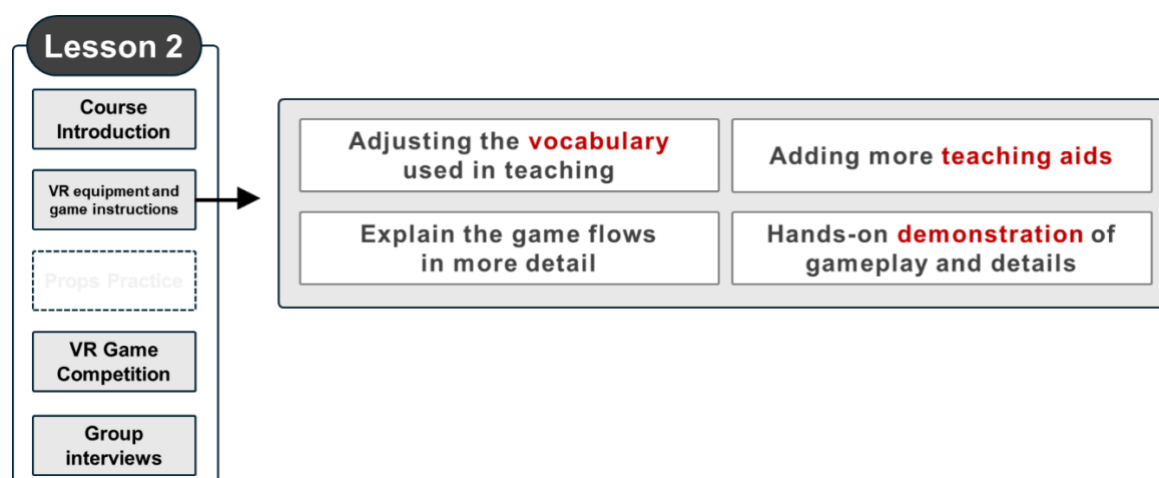


Figure 3: The courses process for the second lessons was adjusted.

To explore the learning effectiveness and adaptability of older adults, a paired-sample t-test was conducted on the scores from the first and second rounds of the competition (Table 2). There was a significant difference in score improvement ($p=0.002<0.05$). The scores represent the number of hits, with a maximum score of 42 for all hits. The first round ($M=29.85$, $SD=10.55$) had a 71% hit rate, and the second round ($M=35.25$, $SD=6.88$) had an 84% hit rate, significantly higher than the first round. Through group interviews, expert interviews, and observation, it was found that using physical props to demonstrate the game process and adjusting the vocabulary for swinging actions effectively helped older adults understand the game flow and actions, reducing the negative impact of unfamiliarity, and shortening the VR adaptation period.

Paired Sample T-Test			
M (SD)		Test Results	
First	Second	t	p
29.85 (10.55)	35.25 (6.88)	-3.44	0.002

Table 2: Paired Samples T-Test of Scores between the First and Second Rounds.

Conclusion

This study found that older adults often experience fear and anxiety due to unfamiliarity and lack of understanding when first encountering VR, leading to negative emotions. These negative emotions result in stiff and tense hand movements, affecting their ability to operate the controller and thus impacting game progress and learning motivation. Through group interviews, expert interviews, and observation, researchers identified three main difficulties faced by older adults: 1. Lack of understanding of the game process concept. 2. The vocabulary used in teaching did not match the older adults' usual language habits. 3. The meaning and interaction concepts between objects were unclear.

To address these issues, researchers adjusted the courses content to include familiar everyday language, explanations linked to life experiences, and the use of physical props to demonstrate game processes and actions. These adjustments effectively reduced cognitive load, helped older adults understand VR games, minimized negative emotions, and increased enjoyment and interest. The adjustments align with previous research findings. Sergio Sayago et al. (2013) emphasized that learning activities should connect with learners' real-life situations; Eleftheria Vaportzis et al. (2017) noted that a lack of knowledge and confidence causes psychological burdens; Jeng et al. (2017) suggested that instructional design should adopt a fun, step-by-step approach to enhance motivation and efficiency. This study's adjustments reflect these principles, helping to stimulate older adults' learning interest and motivation. However, other factors such as skill proficiency, mutual learning, and courses attractiveness may also influence the improvement of learning effectiveness. Future research could consider including more variables to comprehensively evaluate the effectiveness of teaching strategies and further optimize instructional design.

This study explored the use of VR technology as a new method for learning and entertainment among older adults, investigating the adaptability issues faced by older adults during their initial use of VR for game operation through experiential teaching courses. The research found that courses and teaching methods designed specifically for older adults significantly enhanced their adaptability to VR technology.

During the initial experience, older adults commonly faced operational difficulties and psychological burdens. However, through three courses adjustments—using familiar everyday language, explaining game concepts with life experiences, and utilizing physical props for demonstrations—their proficiency and understanding of VR game operation improved, enabling them to grasp VR games more quickly. In the second lessons, older adults demonstrated higher hit rates and fewer operational errors. Additionally, the social elements and competitive design of the courses increased motivation and enjoyment, proving that a teaching model combining physical and virtual interactions effectively reduces the adaptation period for beginners in VR learning among older adults.

Future research could further explore the relationship between different types of VR content and the learning efficiency of older adults, as well as how to expand these teaching methods within broader social and cultural contexts to meet the growing learning needs of older adults. This study confirms the importance of designing teaching methods that address the specific needs of older adults and provides recommendations for experiential teaching courses. These findings have significant implications for promoting technology education for healthy aging societies.

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Contact email: alexandra881112@gmail.com

***Specular Space Expansion: Yayoi Kusama's Infinity Mirror Rooms Through
Hermann Schmitz's Atmospheres***

Melissa Gallego Quiroz, Shanghai University, China

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Since the debut of her first infinite room, "Floor Show," in 1965, Yayoi Kusama has used specular space to extend light, shapes, and the viewer's presence, leaving a sense that the perceptual field is transformed. This article analyses Kusama's infinite rooms within the framework of the concrete phenomenon of Atmospheres, developed by the German philosopher Hermann Schmitz. The concept is explored within the emotional space as part of the theory of perception, presented in Schmitz's monograph titled "The Sphere of Emotion" [Der Gefühlsraum], wherein feelings are located in atmospheres. First is describe it the difference between the concept of bodies - *Körpe* and *Leib* - as the atmosphere of feelings needs to be reviewed from the felt body (Leib), secondly we examine Yayoi Kusama's statement of self-obliteration, as she proclaimed with her work "Forget yourself, become part of the environment" and relate it to the felt body, reviewing two of Kusama's rooms, *Souls of Millions of Light Years Away* and *Let's Survive Forever* showing that the infinite rooms as atmospheric spaces allow the visitor to reflect on what is perceived as the perceptual field is transformed and implies a re-evaluation of the experience of the body.

Keywords: Atmosphere, Felt Body, Hermann Schmitz, Space, Yayoi Kusama

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Introduction

When talking about atmospheres, the most common place would be to think in the space of the layers of gases that cover our earth, that thin layer that keeps us alive and allows us to have oxygen that protects the earth from meteors and solar radiation. One could also think of a cold morning or a sunny day in the park, the sense of temperature of cold or heat that a space can have. The etymological roots of the term – from the Greek ἀτμός [atmos] 'vapor' and σφαῖρα [sphaira] 'sphere' is the space where sensory and affective qualities are. These qualities affect us whether we are aware of it or not. Every environment has some particular characteristics, and those modes dictate how we relate to the environment on many levels. The atmosphere is studied for its affective properties in contemporary studies as widespread sensory and emotional characteristics in an area without surfaces (Schmitz, 2014). This characteristic defines a unique tone that shapes the experience of the environment and is understood as a sensorial place, therefore, tangible to perception through bodily affectations and is mainly the space of feelings.

The term atmosphere has been used as a metaphor in European languages since Goethe (Böhme, 2019) and gained strength in philosophical thought through the philosophical system of Hermann Schmitz¹, who introduces it in his monograph entitled *The Sphere of Emotion* (1969) [Der Gefühlsraum], mainly because of an interest in taking the introjection of the self out of the division and objectification in which the whole process of introspection takes place in the mind of the subject², where the person divides his world into two, the outer world and the inner world, the division of the outside and the inside. Schmitz likens the inner world to the house, a house with walls and floors, which contains and the psychologism as this house encloses the experience of the person in this inner world (Schmitz, 2007, p. 14). In his quest to overcome the dogma of the inner world, he works on the theory of space, the philosophy of the body and new phenomenology, and the term atmosphere works as an epistemological as well as methodological concept.

Schmitz defines the atmosphere as an occupation of space without surface in the area of what is experienced as present and is the place where affective quality and emotions remain (Schmitz, 2014); this concept has implied a marked acceptance as a new approach to relate to spaces in the last decades. Gernot Böhme, since the mid-90s, has highlighted the importance of atmospheres as a fundamental element for new aesthetics (1993) and these not only from numinous (proposal of Rodolph Otto) but the approach towards the production and creation of atmospheres, an idea welcomed by architects and designers, such as the renowned architect Peter Zumthor, winner of the Pritzker Prize in 2009, who creates his projects focused on the generation of atmospheres, which he considers essential for their emotional characteristics (Zumthor, 2006), as well as Olafur Eliasson, the world-famous artist for his large-scale installations, who sees the atmosphere as an active agent in the creation of artistic works.

In the so-called "atmospheric turn" it is claimed that feelings are in atmospheres, which have affective qualities that imply the experience of emotion. The atmospheres theory has been

¹ *System of Philosophy* his work between 1964 and 1980 consist of 5 vol. in 10 books (1964, 1965, 1966, 1967, 1969, 1973, 1977, 1978, 1980a, 1980b)

² According to the author, this anthropological paradigm emerged in Greece in the second half of the 5th century B.C with Democritus and Plato. It is characterized by reductionism, psychologism and the paradigm which Schmitz calls "dogma of the inner world". [Innenweltdogma] (Schmitz 2009, p. 14)

embraced in architecture, arts, and disciplines such as psychology, sociology, and nursing (Uzarewicz & Uzarewicz, 2005) to make visible involuntary life experiences and the characteristics and states that imply emotional effects. At one time or another, we have all entered a room or visited a landscape and have felt something about that place, a sensation of that space, which has left us with an emotional response through immediate involvement.

In this pursuit to discover a space's emotional involvement, this research paper relates the concept of atmosphere in Herman Schmitz's philosophy to the work of the renowned artist Yayoi Kusama, and it seeks to understand the series "Infinite Rooms". Kusama is the world's most influential female artist and the first woman to enter the top 10 best-selling artists at auction. The artwork of Kusama is complex, and her aesthetic character is compelling. To answer the question "How can Yayoi Kusama's infinite rooms be understood through the concept of atmospheres?", we first describe the difference between the concept of bodies - Körper and Leib - as the atmosphere of feelings needs to be reviewed from the felt body (Leib); secondly we examine Yayoi Kusama's statement of self-obliteration, as she proclaimed with her work "Forget yourself, become part of the environment" and relate it to the felt body (Leib).

The Atmosphere Through the Felt Body (Leib)

This philosophical analysis is based on the way we find ourselves in an environment; from the phenomenological perspective, there are two ways in which the body can be experienced, felt and been as an existing entity in the present moment; one is the body (Körper) as a solid object element, that we can measure, weigh, quantify with different instruments, it is this physical body that we feel owning and controlling through intentional actions. This physical body is at a distance in relation to its surrounding space. The word Körper in German is linked to physical qualities. The body, as an object, that has associations more related to things, with connotations of being an instrument; the word Körper can be found when referring to the body of a mechanical piece, or in physics, you can say "zwei Körper kollidieren", two bodies collide, this word is used to describe mathematical objects, as well as to describe the physical body, what we know as the physical body itself, which can be touched, perceive the surface of the skin, feel the hair and so on.

There is a second way of understanding the body and comprehending that we are here and now, and it is through the felt body (Leib); the German word Leib comes from the etymology of Leben, to live, and Erleben, to experience, refers to the body as experienced the lived body, from the German to the English can be translated as "sensitive body", "living body" and in the majority as "felt body". The spatiotemporal framework of order does not yield the same level (Schmitz, 2011); this body as the experience of life, which is not subordinated to the limits of the physical body, not purely referred to the physical properties of feeling constituted in the solid body but in the experience of feeling itself, and which inhabits through living in the present, in the instant of experience.

Let's think as an example, when a specific sound is heard, such as the passing of a train, the attention is drawn towards the sound of the machinery moving on the tracks. The body of experience is not confined to the physical body but instead expands to the location of the sound, in this case, the train tracks. The kinesthetic properties of sound through touch and movement convey characteristics and actions of one's own while perceiving this sound. The felt body expands to the place of sound, and attention and perception lead to knowledge of that moment through the felt body, which is not just limited to the internal organs.

In the experience of the felt body, the objects of reference are perceived without any apparent physical distance, as there is no distance at the moment they are perceived. This is because the attention serves as the reference point for recognizing their presence. Similarly, in perceiving emotions such as astonishment, that instant remains through the affective implication; there is no need to look at the physical body to recognize that we are present through the affective implication of astonishment (Schmitz, 2011). The felt body is not bound by the house or the limiting walls of the physical body but expands in space through the emotions and affective quality embedded in the atmospheres as a lived and non-geometrical space (Griffero, 2019; Schmitz, 1969, 2007, 2014). In this way, Schmitz considers the felt bodily affective qualities as the primary determinant of understanding the atmosphere, eliminating the boundary between sensory perception and the separation between inside and outside.

Physical bodily emotions are accompanied by a gesture, by a bodily communication, and it is in this bodily immediacy of physical impact that we consider that we have or that we possess a feeling when we are physically affected by an atmosphere with certain characteristics and in which the emotional experience, our physical bodily affect, is involved. Throughout life, we encounter involuntary life experiences; we do not recognize the moment when the physical communication of the effect is given, simply and sometimes with dangerous triggers, we find a person reacting to something, not knowing that this feeling does not belong to himself, but was captured in the reaction of the emotion through his physical bodily connection. In the last years of his academic life, Schmitz highlighted the importance of atmospheres and involuntary life experiences in our everyday life. He stressed the importance of being aware of these affectations and developing and capturing them, the art of capturing and developing atmospheres, which are feelings so people can relate to their physical well-being (Schmitz, 2014, p.27).

“Forget Yourself, Become Part of the Environment” – Dissolution and Felt Body

Yayoi Kusama has used different media for her art; these have varied over the years among these paintings, installations, performances, and sculptures; these media show the expression of patterns that remain through the years, the multiplication and the need for repetition of dot shapes, and "polka dots net" networks through interconnected lines, intertwined lines that create a pattern without any apparent focal point as seen in his paintings in the series Infinity Nets or the repetition with thousands of projections of points of light that expand into the virtual image of the reflection with her series Infinity mirror rooms, is multiplication in the name of infinity.

Yayoi has mentioned on several occasions that she uses the dots as an element to help create a dissolution, "I paint polka dots on the bodies of people, and with those polka dots, the people will self-obliterate and return to the nature of the universe" (Kusama, 2011). The constant repetition of the same figure in a permanent succession in which the physical body is forgotten or tries to subtract itself through the pattern by covering the body with the dots, as a way of detaching the body as a unit, with an intention declared by Kusama to fade this and to integrate us with the environment. "When we obliterate nature and our bodies with polka dots, we become part of the unity of our environment. I become part of the eternal, and we obliterate ourselves in Love."³

³ Kusama, quoted in Jud Yalkut, "Polka Dot Way of Life (Conversations with Yayoi Kusama)" in New York Free Press 1, no. 8 (Yalkut, 1968).

Yayoi was sometimes so abstracted in her creative process that she continued to paint outside the canvas:

"I would cover a canvas with nets, then continue painting them on the table, on the floor, and finally on my own body. As I repeated this process over and over again, the nets began to expand to infinity. I forgot about myself as they enveloped me, clinging to my arms and legs and clothes and filling the entire room." (Kusama, 2021)

The painting is literally spread out of the frame, something that we see in the Infinity mirror rooms; the artwork is not subordinated to the dimensions of a canvas; all the space surrounding the physical body is part of the work; it is an immersive installation art on a large scale and as we can relate to what she expressed in her autobiography, the way of the painting process, she was in a state of presence, and at the same time, presumably abstraction of thoughts, only the continuation of the movement of the painting process, maybe, working as an act of meditation in the sense of stillness and agitation of movement.

Infinity mirror rooms are a series of installations in which Kusama uses specular space to reflect environmental elements; these are large-scale catoptric boxes.⁴ The series has had more than 20 versions since the mid-1960s, starting with "Floor Sow", which was exhibited in Castellane Gallery, New York, in 1965, the first exhibition in which she uses the mirror as a material, covering the walls with it, founding in the catoptric box an appropriate system for replication; with the properties of reflection, her figures and dots expand beyond the tangible physical forms located on-site and are transferred to virtual space.

Let's examine two of her rooms, *Souls of Millions of Light Years Away* and *Let's Survive Forever*, reviewing how she uses the pattern of the dots, supported by the physical properties of mirrors and what type of atmosphere is created in those. The work *Souls of Millions of Light Years Away* (2013) is a room filled with thousands of small lights hanging from the ceiling at different heights. One step inside and you are welcomed by the reflection of the lights; those lights are reflected on the water floor and mirrored walls, creating an immersive environment of intimacy and a sense of suspension, without any doubt, the iconic image of resemblance "Milky Way Bulge" taken by the Hubble were the sparkling lights of the galaxy come in mind, the pattern of the dots is seen in the replication of the thinnest point of different colour LEDs.

If we think that the atmosphere represents a perception of reality that more to relate to any concrete sensory perception, what really matters is the way the body feels in the environment (Moraveji et al., 2022), we need to ask what is the felt-body of this experiences. The Smithsonian's Hirshhorn Museum described this room as "an immersive environment that fosters an out-of-body experience,"⁵ from a technical approach to the construction of the space, the given visual effect is made by the properties of reflection of the points of light; the image folds on the floor and covers the whole environment, which generates the effect that unifies the space; this implies that one cannot identified clearly where one is, without a clear distinction of the surface as a surface, a wide horizon in extension is observed, and the lights are magnified as a virtual image of the mirrors, where the end of this horizon cannot be

⁴ Heron of Alexandria in the first century A.D. in his catoptric work, he mentions the catoptric machine composed of many flat mirrors see Baltrušaitis, 1988. Also the theatrum catoptricum of Athanasius Kircher in the 17th century exploring the properties of mirrors in different catoptric boxes see Kircher, 1646.

⁵ Hirsh Horn Museum, Infinity Mirror Rooms, <https://hirshhorn.si.edu/kusama/infinity-rooms/#souls>

clearly perceived. The body of experience is affective involvement, which implies intimacy with the resemblance of the point of light as starts in the vast sky; only the feeling remains.

So Why out-of-body? When examining the work, the visitor becomes part of it firstly the image of his or her physical body gets replicated in the mirror walls many times and intermingles with the figures of points of light, as again Yayoi uses the replication of forms to subtract, in this case the body of the viewer, the mirror are working as an utopia existing outside of physical reality, a "placeless place" and also as an heterotopia in Foucault sense, this alterity place, a "sort of counteraction on the position that I occupy" (Foucault, 1984) in a way of transcending ourselves, we see our own body there in the space behind the mirror, and thought our own absence from the place where we are, and from that point come back the gaze of ourselves and reconstitute us. Secondly, the body of experience is the present experimented in expanding the perceived space via the atmosphere of suspension and stillness that occupies the whole experience. For a few seconds, we can feel what Yayoi invites in her art statement: "We become part of the unity of our environment".

The second of these immersive artwork is call *Let's Survive Forever*, created in 2017, which generates an optical perspective with multiple layers, levels of projection. The first level is the projection generated in space through the face-to-face effect of the mirrors. Yayoi implements elements directly embedded in the vertical glass walls; aluminium spheres have been meticulously assembled in the mirrored walls, creating a circular reflection that gives the observer the sensation that they are suspended in the air, floating, suspended spheres. In convex reflections, the reflecting surface is curved outwards; when the light hits this surface, the light rays are curved and reflected in a divergent way; as the focal point and center of curvature are inside the mirror, the rays of the object are always creating virtual images, being a convex surface it generates an image with great amplitude, covering a large part of the space.

The second layer is achieved with a second catoptric box located in the center of the space; this is a smaller rectangular structure that does not allow the visitor to go through it with his whole physical body. One must look through some small circular openings to enter and discover its interior. When looking inside, one discovers a thousand reflections of spheres, projected one on top of the other. The reflection of all the spheres is in one; the image of all the small spheres is, in turn, projected into each of them, resembling the story of the pearl necklace of Hindu philosophy in the net of Indra.⁶

The Memorial Art Gallery University of Rochester interviewed visitors who had just experienced this artwork, asking them about their first impressions of this installation. These are some of the viewers' answers: "I was very shocked," "kind of a sense of oneness," "you incorporate your own body into the art," "empowering," "it told such a big story in the sense of how infinite space is," "it's like limitless feeling."

Conclusion

The atmosphere is the space where sensory and affective qualities are, an emotional place experienced through the felt body that allows us to understand the emotional space of Yayoi

⁶ The metaphor of Indra's Net metaphor originates from the Atharva Veda, and it mean the interconnection between all things in the universe, referring to the fact that all phenomena emerge together in an interdependent network of cause and effect.

Kusama's infinite rooms and to understand the artist's call to "forget yourself...become part of the environment" to transcend *Körper* and become *Leib*.

These atmospheric perceptual spaces allow the visitor to reflect on what is perceived as the perceptual field is transformed. This implies a re-evaluation of the experience of the body, which is the basis of the relationship to the environment, through the felt body as a substratum of the interaction with emotional atmospheres. Heraclitus, quoted by Schmitz, "You will never find the limits of your soul as you wander, even if you walk on all sides", speaks of unlimited space, infinite in the sense that it is not pigeonholed in the introspection of the soul, corporeal subject. On the contrary, it invites expansion, atmospheres as transubjective and shared feelings; it invites us to this.

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***Emotional Fluctuation Expression of Participants in Virtual Interactive Environments
Color Composition and Harmony***

Chia-Hung Lin, National Yunlin University of Science and Technology, Taiwan
Wen-Shan Chang, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In today's fast-paced society, individuals often grapple with immense work stress and a high-pressure lifestyle, making it harder to alleviate anxiety. This not only affects work efficiency and life quality but also may delay seeking timely medical assistance. Many struggle to understand and analyze their emotions, finding traditional emotional scales complex and confusing. Consequently, most people tend to ignore their emotional issues, with only a few seeking psychological or medical help. This study introduces an innovative method using an Arduino connected to a Galvanic Skin Response (GSR) sensor. This device analyzes participants' resistance fluctuations, indicative of emotional intensity. High skin resistance signals significant emotional changes. These are then visually interpreted and represented in a virtual interactive space using Touch Designer, transforming emotions into visual elements like colors, shapes, and waveforms for effective categorization. Additionally, the CIEL*a*b* color space can be matched to Russell's circumplex model of affect. This approach enables participants to intuitively perceive and comprehend their emotional shifts, simplifying the complexity of conventional scales. It offers a rapid self-assessment tool, providing others insights into the participant's emotional state. The study has successfully developed a prototype for simple emotional fluctuation analysis, allowing real-time monitoring and regulation of emotions. This tool represents a significant advancement in emotional analysis and adjustment in our high-pressure society, facilitating better emotional understanding and management.

Keywords: Interactive Design, Emotional Analysis, Emotional Granularity

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Introduction

According to research conducted by the Institute of Labor, Occupational Safety and Health under the Executive Yuan, the work pressure on male workers increased from 7.6% in 1994 to 13.8% in 2008, while for female workers, it rose from 6.5% to 13.5%. On average, there are 13 out of every hundred workers experiencing significant work pressure. This figure is approximately twice as high as that of 1994, indicating a growing trend of severe work pressure among domestic workers. Workplace stress not only affects individual employees but also has a significant impact on organizational development. Currently, stress management in domestic workplaces focuses more on changes in employees' behaviors, with less emphasis on organizational change initiatives (Chen et al., 2010).

In light of the high-pressure environment in contemporary society, appropriately establishing healing environments in workplace settings can induce self-healing of the body and facilitate positive transformation to enhance the holistic well-being of space users (Wu, 2011). Traditionally, the design of workplace break areas seldom considers individual emotions. Through the translation of design elements such as spatial colors, sounds, and images in virtual interactive spaces, it is hoped that the conventional and unchanging nature of workplace break areas can be disrupted, enabling the quick assessment and analysis of individual emotions.

Objectives of the Study

Based on the research motivation outlined above, the utilization of Arduino connected to Galvanic Skin Response (GSR) sensors and interactive visual design software such as Touch Designer facilitates the construction of digital content and environments. This enables the visualization of emotional granularity and the correlation with the CIELab* color space and emotional experience models, as well as the emotional labeling of audiovisual elements. Through this approach, participants can visually observe their own emotional granularity, allowing users to monitor and adjust their emotions in real-time.

Emotion Definition

Emotion refers to the physiological or psychological response generated by internal or external stimuli in the human body. It is a subjective perceptual experience, whereby observers can infer but cannot fully empathize with it through facial expressions and behavior. Emotion is not easily controlled by self-awareness and is related to the concept of motivation; emotions can influence motives, and motives can trigger emotions. Mehrabian & Russell (1974) proposed a framework for human emotional responses to environmental stimuli, describing them along three independent dimensions: arousal/nonarousal, pleasure/displeasure, and dominance/submissiveness. This framework is used to predict behavioral responses to environmental stimuli, as depicted in Figure 1 (Mehrabian & Russell, 1974).

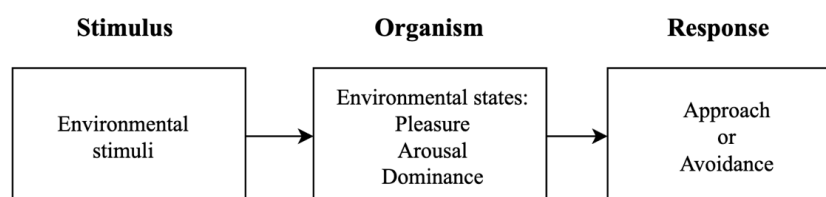


Figure 1: Mehrabian-Russell Model (Mehrabian & Russell, 1974)

Pleasure reflects the degree of happiness and satisfaction experienced by the human body in response to environmental stimuli, arousal refers to the vigor and alertness with which the body responds to environmental stimuli, and dominance indicates the sense of control over the situation. Mehrabian & Russell (1974) developed a set of bipolar scales of emotion, consisting of opposite adjectives, which can serve as effective indicators of emotional feedback in response to environmental stimuli (Mehrabian & Russell, 1974).

1. High arousal + pleasure + high dominance: Excited emotion.
2. High arousal + pleasure + submissiveness: Anxious emotion.
3. Low arousal + pleasure + high dominance: Exciting emotion.
4. Low arousal + pleasure + submissiveness: Relaxed emotion.
5. High arousal + displeasure + high dominance: Worried emotion.
6. High arousal + displeasure + submissiveness: Irritated emotion.
7. Low arousal + displeasure + high dominance: Melancholic emotion.
8. Low arousal + displeasure + submissiveness: Depressed emotion.

Table 1: Bipolar Scales of Emotion with Opposite Adjectives
(Source: Data compiled by this study)

Classification of Emotions

The types of emotions are quite diverse, with several different emotions derived from basic ones. Scholars such as Phillip Shaver et al. categorized 135 different emotional terms in 1987, identifying six basic categories of emotions: Love, Joy, Surprise, Anger, Sadness, and Fear. Among them, the first three belong to positive emotions, while the latter three belong to negative emotions (Cindy & Phillip, 1986). Osgood et al. and subsequent psychological studies conceptualized the classification of emotions mainly into two components: Arousal and Valence (Osgood, 1969).

1. Arousal: high or low, represents the intensity of emotions, ranging from no emotional response or calmness to excitement.
2. Valence: pleasure or evaluation, indicates the positivity or negativity of emotions, determining whether the emotional state is positive or negative.

Russell and Pratt, along with other scholars, proposed the "Emotion Structure Model" in 1980 (Russel, 2003), which identified two primary dimensions of human emotion: "Arousal" and "Pleasure" (Russel, 2003). They suggested that all emotions can be represented on this two-dimensional coordinate system. In 1981, Russell and other researchers found that "Dominance" belongs to a cognitive dimension and is not as crucial as "Arousal" and "Pleasure". Therefore, they advocated for using only "Arousal" and "Pleasure" to explain the characteristics of environmental emotions (Ward & Russell, 1981). This classification standard has since been widely adopted by scholars, as depicted in Figure 2.

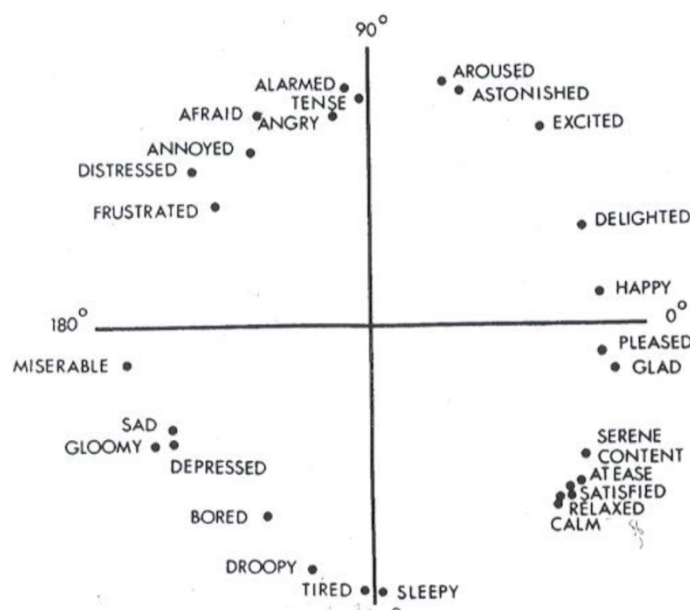


Figure 2: Circumplex Model of Emotion (Ward & Russell, 1981)

Emotional Granularity and Affect Labeling

Individuals vary in their ability to create precise and context-specific instances of emotions, a skill known as emotional granularity (Tugade et al., 2004) or emotional differentiation (Barrett et al., 2001). Emotional granularity emphasizes the ability to differentiate emotional experiences based on current or anticipated circumstances. This ability allows us to more accurately understand and express our emotions, thereby better managing our emotional responses. For example, a person with high emotional granularity may differentiate between being "angry" or "sad" rather than just "unhappy". This differentiation can help them find more effective coping strategies, as dealing with anger and sadness may require different approaches. Over time, emotional granularity not only varies between individuals but also within individuals (Tomko et al., 2015; Erbas et al., 2018, 2021), suggesting that emotional granularity may be shaped or even improved. Moreover, an increasing body of research demonstrates that high emotional granularity is typically associated with positive and healthy coping attitudes. Therefore, the manifestation of emotional granularity is crucial for mental and emotional well-being, as different levels of emotional granularity determine one's emotional state.

Emotional Expression

Internal emotional states can be conveyed outwardly through both verbal and non-verbal forms of communication. In terms of communication channels, these can be divided into verbal and non-verbal categories. Non-verbal modes of communication include body language, facial expressions, and physiological responses. Additionally, personal thoughts, feelings, and intentions can be conveyed through written text and verbal communication during interactions with others. Therefore, to interpret people's emotions, one can assess their emotional state through written and non-written messages, physiological responses, and body language. Researchers have identified three main avenues through which humans express emotions: physiological responses, expressive behavior, and cognitive expressions of emotion.

- "Physiological responses": Changes in respiration, heart rate, blood pressure, blood volume in muscles, pupil dilation, and electrodermal activity caused by sweating. However, current research suggests that physiological responses alone cannot serve as a single indicator for detecting and categorizing emotions.
- "Expressive behavior": Facial expressions, body posture, tone of voice, and gestures, with facial expressions being a cross-cultural means of emotional expression. Compared to involuntary physiological responses, expressive behavior can be controlled and concealed.
- "Cognitive expressions": Involves the recognition and description of emotions. When individuals perceive their emotional states, they classify them into emotion terms within the language system or express them through metaphors using language or writing.

Therefore, the carriers of "cognitive expressions" are words and language. While linguistic expression may appear varied and ambiguous through metaphors, compared to physiological responses and expressive behavior, cognitive expressions are relatively easier to record, write, disseminate, and perpetuate over time, affecting broader aspects and having a longer-lasting impact.

Galvanic Skin Response (GSR)

The Grove-GSR (Galvanic Skin Response) sensor, developed by Seeed Studio, is a modular kit designed to measure skin conductance. It can be connected to Arduino or Raspberry Pi to collect data. Its operation principle lies in the fact that different emotions stimulate the sympathetic nervous system, leading to varying degrees of sweat secretion from the body's sweat glands. The Grove-GSR detects and identifies intense emotions by using two simple and non-invasive electrodes attached to two fingers on one hand. This electronic device can be used for academic research on emotion recognition or related equipment, such as sleep quality monitoring or lie detectors (IOT, 2018). The theoretical basis of GSR is that when a person is tense or anxious, the body's sweat glands naturally secrete sweat. As we pass a small electrical current through the skin surface, the resistance value measured by the device decreases. The higher the tension level, the stronger the skin's conductivity. The setup and wearing method of the GSR device are illustrated in Figure 3.

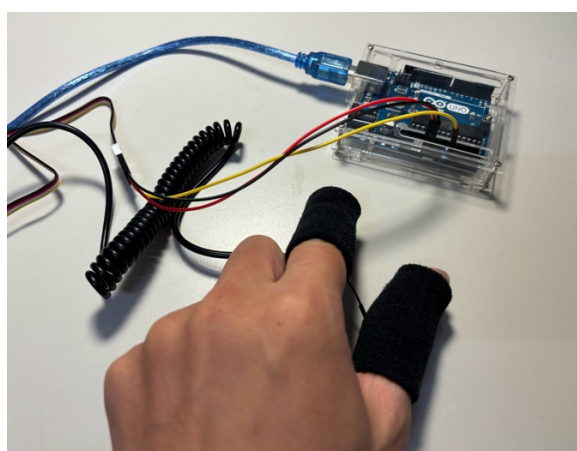


Figure 3: Grove-GSR wearing configuration

Typical GSR emotional responses are illustrated in Figures 4, 5, 6, and 7, representing four different emotional states: emotional fluctuation (emotion regulation), relaxation, anxiety, and tension. Early psychologists primarily used observational analysis methods with GSR to analyze emotional changes, and this intuitive measurement method has been able to provide initial insights into the emotional changes revealed by the body's sweat glands.

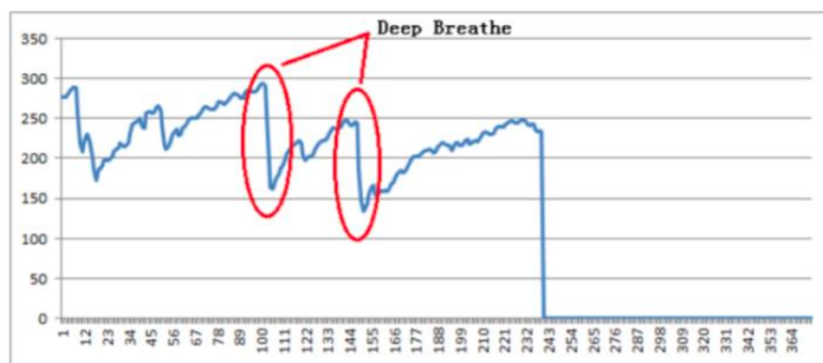


Figure 4: GSR curve of emotion regulation (IOT, 2018)

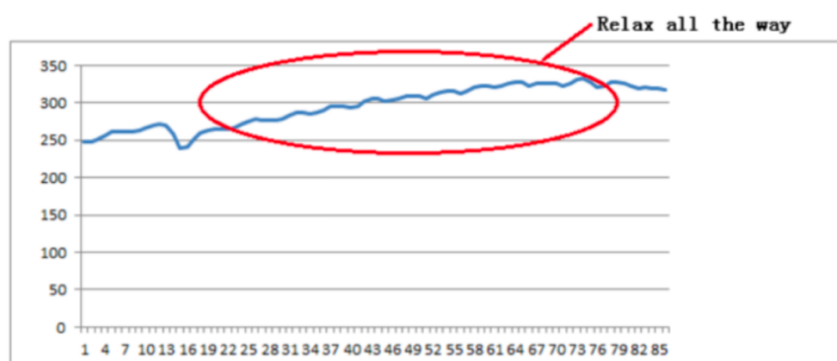


Figure 5: GSR curve of relaxation state (IOT, 2018)

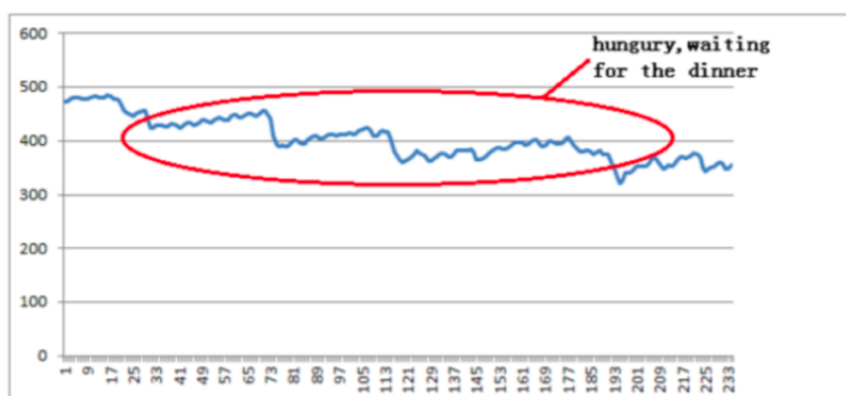


Figure 6: GSR curve of anxiety state (IOT, 2018)

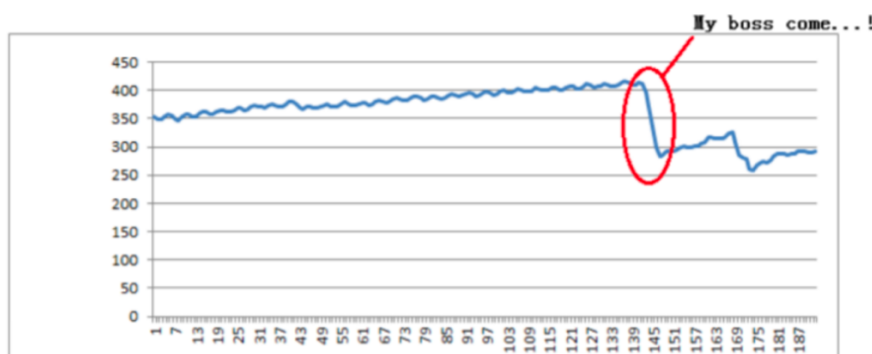


Figure 7: GSR curve of tension state (IOT, 2018)

Color Composition

The perception of color by the eyes results from the stimulation of different wavelengths of light. The components of color include hue, brightness, and saturation, among other fundamental attributes. The following will be described separately (Dazhi Hao, 1969 / translated by Xiaojiong Chen, 1983; Yihui Lai, 1993; Jieying Zhu, 1998).

1. Hue

Hue refers to the appearance of color and is used to distinguish the names of various colors, such as red, orange, yellow, green, blue, and purple, which describe the appearance of colors. The differences in hue are mainly due to the different wavelengths of light. Light with longer wavelengths will evoke colors such as red, orange, and yellow, while light with medium wavelengths will evoke green, and light with shorter wavelengths will evoke colors like blue and purple. Depending on the different wavelengths, six main hues can be distinguished from the continuous spectrum from purple to red. The range of hues is quite extensive, and based on the positions of the primary colors in the hue circle, hundreds of colors can be derived. Generally, for ease of understanding and explanation, the 12-hue circle is most commonly used, with the 12 basic hues being yellow, yellow-orange, orange, red-orange, red, red-purple, purple, purple-blue, blue, blue-green, green, and yellow-green.

2. Brightness

Brightness refers to the lightness or darkness of a color. Each color reflects variations in brightness due to the intensity of light. The difference in brightness of colors of the same hue is mainly related to the amplitude of light or the reflectance of the object's surface. In short, when the incident light is bright, we perceive brightness, indicating a higher brightness, whereas when the incident light is dim, we perceive lower brightness.

3. Saturation

Saturation, also known as color intensity or purity, refers to the vividness or richness of a color. In color systems, saturation is measured from the achromatic axis (with a saturation of 0) towards the outer circumference of the circle. The farther away from the achromatic axis, the higher the saturation, and thus, the more vibrant the color. Pure colors on the spectrum have the highest saturation, but when mixed with other colors, the saturation decreases.

Color Space

CIELab Color Model*

The CIELab* color model translates light wavelengths into brightness and color, based on the characteristics of the human eye. It is commonly used to describe all colors visible to the human eye and is considered the most comprehensive color model. In the Lab* space, colors are represented using three basic coordinates. The L* value represents brightness, ranging from black to white. The a* value represents the relationship between green and red, ranging from -a* to +a*. The b* value represents the relationship between blue and yellow, ranging from -b* to +b*. Because the CIELab* color space is constructed based on the visible spectrum of the human eye, it encompasses the colors generated by screens and printing, making it the closest representation to human vision. Additionally, the L* component closely matches human brightness perception, allowing for the correction of a* and b* values to achieve more accurate colors. As CIELab* describes color appearance rather than specifying proportions of colorants needed to produce a particular color on a specific device, it can be considered a device-independent color model.

Color Harmony

Past research on color harmony has identified three major factors influencing color harmony: psychological effects, physiological effects, and physical effects. Psychological effects include color association and attitude; physiological effects include color order, configuration, area, interaction, and similarity; physical effects include color tone (Burchett, 1991, 2002).

Determining color harmony involves not only using traditional color wheels but also analyzing differences in hue, brightness, and saturation between two or more colors to gauge the degree of harmony (Chuang & Ou, 2001; Ou et al., 2004c; Ou & Luo, 2006; Solli & Lenz, 2009). The interaction between colors in color harmony is a complex process, often investigated by combining pairs or groups of color chips. Generally, the more colors involved, the greater the interaction between them, making predictions more challenging. Additionally, colors can have multiplicative effects on each other, which researchers have utilized to independently analyze and compute color harmony (Ou & Luo, 2006; Solli & Lenz, 2009; Ou, Chong, Luo, & Minchew, 2011). However, there are various methods for calculating color harmony, with current studies often using uniform and easily controllable color chips as a medium. Nevertheless, color exists in heterogeneous ways in our living spaces, and using only homogeneous color chips may not comprehensively discuss the overall color composition of the environment. Therefore, this study returns to the basic concept, exploring the overall color composition of images using differences in color perceived by humans and physical quantities.

Color harmony can indeed be influenced by the color preferences of the subjects themselves. Some studies have shown that although colors may be harmonious, subjects may dislike them, and vice versa. This contradiction may be due to the individual characteristics of the subjects, but it cannot be denied that there is a strong correlation between preference and harmony. Gender, age, and whether one has received professional training can also lead to different perceptions of color harmony. Studies investigating color psychological factors, such as preferences, across different types of images, such as landscapes, portraits, and food, have found that color harmony is the most important psychological factor influencing image

preferences (Chuang & Ou, 2001; Ou et al., 2004c; Ou & Luo, 2006; Solli & Lenz, 2009; Schloss & Palmer, 2011; Guan & Hung, 2010).

Color and Emotional Experience

The process of generating color emotions and emotional experiences involves receiving physiological stimuli through the eyes from the external environment, which then connect to the brain to produce psychological responses. In this complex sequence of events, various individual characteristics come into play, such as past memories and experiences, cultural background, and living environment. Therefore, we perceive emotions as independent and unique symbols. Through literature review, the difference between color emotions and emotional experiences lies in the fact that color emotions mainly target an individual's singular perception of color, whereas emotional experiences are feelings generated through stimulation and experiences in spatial environments. The former is generated through the stimulation of color chips, combined with past experiences and associations, while the latter involves a crucial concept of "experience."

This study references the experimental results of Hsu and Lin (2014), which demonstrate that emotional experiences are indeed influenced by the composition of colors, consistent with previous research on emotional perception (Ou et al., 2004a, 2004b, 2004c; Xin et al., 2004; Gao & Xin, 2006; Solli & Lenz, 2011). Mapping the CIELab* color space onto the environmental mood experience proposed by Russell (1980) Figure 8, it is found that there is a high correspondence between color space and certain emotional experiences. For example, participants stimulated by natural landscapes with a predominant red color domain are more likely to experience tension and fear; in environments with a predominance of green color domains, feelings of relaxation and tranquility are relatively enhanced; conversely, in natural environments with a predominance of blue color domains, feelings of melancholy are more likely to occur.

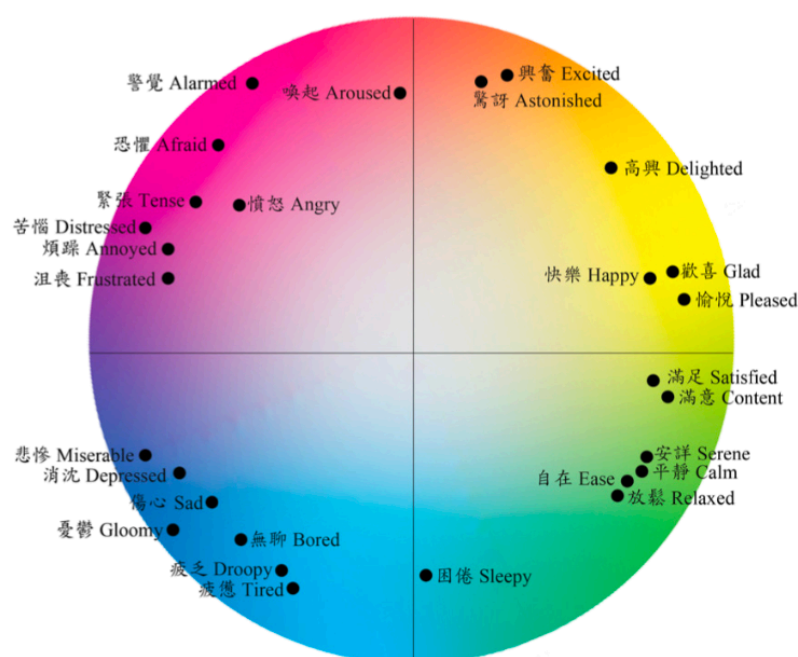


Figure 8: Relationship between CIEL*a*b* color space and Russell's emotional experience

Geometric Shapes and Emotional Experience

"Form is the perception of visual objects" (Yang, 1997). Through vision, the external world's visual forms are transformed into meaningful structural entities (Qiu, 2001). According to the research of British visual psychologist Dr. M.D. Vernon, our visual recognition of the existence of objects depends on the differences in "form," "color," and "brightness" of the object compared to those of surrounding objects (Wang, 1999). Form and color often influence perceptual judgments (Leyssen et al., 2012). The combination of all objects is related to form and achieves visual balance and aesthetic beauty (McManus et al., 2011).

According to the principles of perception, the perception of form requires confirmation from "past experiences." As Arnheim pointed out: "Form is not determined solely by the stimuli received by the eyes at that moment" (Arnheim, 2001). Proponents of direct perception theory believe that perceptual information alone is sufficient for an individual to perceive the world correctly. This concept is sometimes referred to as the "ecological validity" theory, with Gibson being its most representative figure. This school of thought holds that research on perception must be conducted in real-world situations, where people can accurately perceive real objects. Indirect perception theory, proposed by Helmholtz and others, is related to the indirect perception and top-down processing of visual stimuli, which drive our perception. Both of these theories are plausible because our brains are highly complex thinking tools, filled with interconnected memories, and accustomed to using reasoning and imagination to solve problems (Solso, 2004).

In the exploration of emotional representation in form, domestic scholars mostly focus on color as the main axis of research. Scholars believe that visual stimuli include both color vocabulary and image form elements, and that the sensation of color is greatly influenced by image form (Leyssen et al., 2012), with some kind of objective balance relationship between them (McManus et al., 2011). For example, when presenting the same color vocabulary with different geometric images, there is a noticeable difference in the perception of the color vocabulary. The perspectives of various scholars are summarized as follows:

Color Vocabulary	Image Shaping	Characteristic
red color words	Square	It has strong, solid, distinct, weighty, opaque, and stable characteristics, with right angles corresponding to the feeling of red.
orange color words	Rectangle, Trapezoid	Orange is toned from yellow and red; in terms of visual form, it compromises between squares and triangles to form rectangles and trapezoids, lacking the sharpness of red and the vividness of yellow, corresponding to the feeling of orange.
yellow color words	Equilateral Triangle	Possessing sharp, energetic, expansive, keen, and vibrant characteristics, it corresponds to the feeling of yellow.
green color words	Hexagon, Curvilinear Triangle	Providing a calm, natural feeling, green is created by blending yellow and blue. In terms of visual form, it is a compromise between a equilateral triangle and a circle, resulting in a hexagon and arc triangle, which aligns with the sensation of green.

blue color words	Circle	Having smooth, light, soft, and flowing characteristics, it corresponds to the sensation of blue.
purple color words	Ellipse	Having soft, feminine, and non-sharp characteristics. Purple is toned from blue and red; in terms of image formation, it is a compromise between circular and square shapes, forming an ellipse that corresponds to the sensation of purple.

Table 2: Exploration of Relevant Studies (Source: Wang, L.T., & Huang, S.P., 2016)

Positive and Negative Affect Schedule (PANAS)

The Positive and Negative Affect Schedule (PANAS), developed by Watson et al. in 1988, is a scale that measures positive and negative emotions. It consists of two subscales, one for positive affect and the other for negative affect, each containing 10 items. The PANAS is primarily used to assess individuals' emotional states or general tendencies at different time points. The positive affect subscale measures experiences such as excitement and joy, while the negative affect subscale measures experiences such as tension and fear. Responses are scored on a Likert scale ranging from "0" (not at all) to "4" (extremely), with higher total scores indicating stronger positive or negative emotional traits. This scale is widely used in research in the field.

		Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
1	Interested	1	2	3	4	5
2	Distressed	1	2	3	4	5
3	Excited	1	2	3	4	5
4	Upset	1	2	3	4	5
5	Strong	1	2	3	4	5
6	Guilt	1	2	3	4	5
7	Scared	1	2	3	4	5
8	Hostile	1	2	3	4	5
9	Enthusiastic	1	2	3	4	5
10	Proud	1	2	3	4	5
11	Irritable	1	2	3	4	5
12	Alert	1	2	3	4	5
13	Ashamed	1	2	3	4	5
14	Inspired	1	2	3	4	5
15	Nervous	1	2	3	4	5
16	Determined	1	2	3	4	5
17	Attentive	1	2	3	4	5
18	Jittery	1	2	3	4	5
19	Active	1	2	3	4	5
20	Afraid	1	2	3	4	5

Table 3: Positive and Negative Affect Schedule (PANAS) (Watson, 1988)

Research Structure

Based on the literature, it is evident that the proportion of workplace stress is increasing annually. Understanding one's own emotions and regulating them is considered essential in modern times. The prototype of the "Virtual Interactive Environment for Emotional Fluctuations" device allows users to intuitively experience their own emotional changes and fluctuation frequencies. This study is divided into three main stages. The first stage involves investigating the granularity and expressive ability of emotional expression among users. This is done through literature review and interviews to identify potential users. The second stage focuses on the design and production of the virtual interactive environment prototype. Drawing from the findings of the first stage, the use of Galvanic Skin Response (GSR) sensors and the Positive and Negative Affect Schedule (PANAS) for emotional fluctuation detection is identified. The data is then interpreted and visually presented using the TouchDesigner software. The third stage involves evaluating the prototype of the virtual interactive environment and providing subsequent recommendations. Expert interviews are conducted to gather insights into the prototype's operation and to gather suggestions for further development, serving as a reference for future iterations of the "Virtual Interactive Environment for Emotional Fluctuations" device prototype.

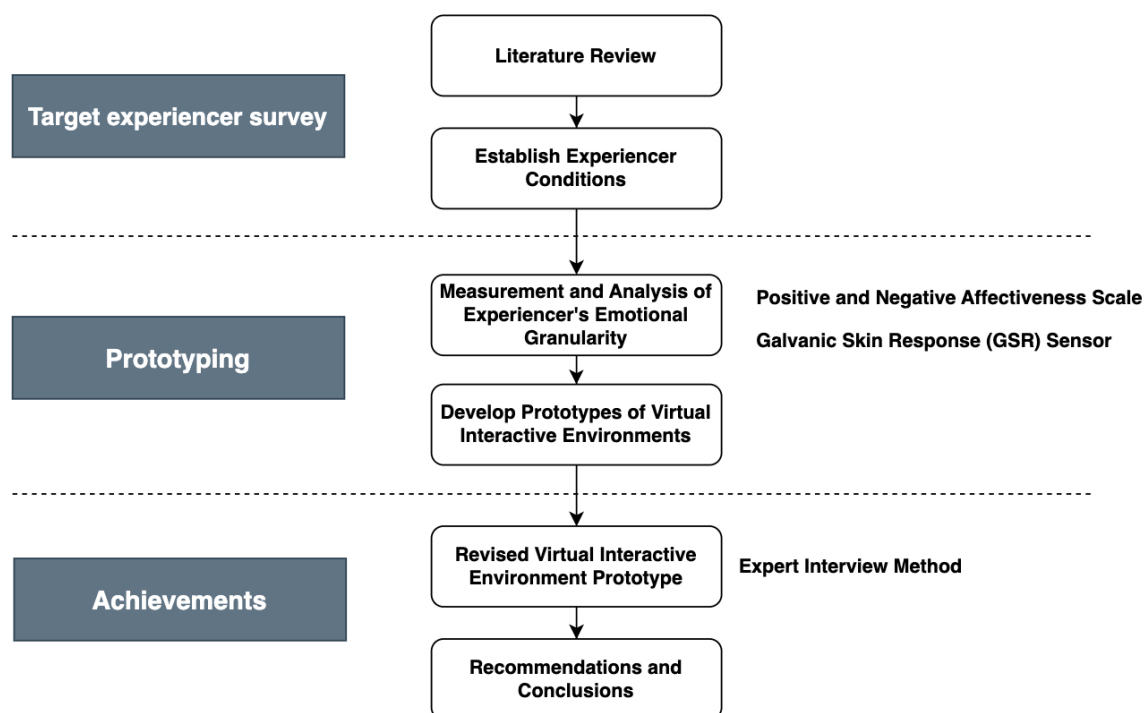


Figure 9: Research Framework Flowchart (Source: Prepared by the present study)

"Prototype Architecture of Virtual Interactive Environment for Emotional Fluctuation Representation"

In this phase, Arduino is used to connect to the Galvanic Skin Response (GSR) sensor, establishing communication with the TouchDesigner software. The physiological data collected by the GSR sensor is then transmitted to the TouchDesigner software for interpretation and visual representation. Subsequently, expert interviews are conducted to assess and optimize the credibility and validity of the interactive experience.

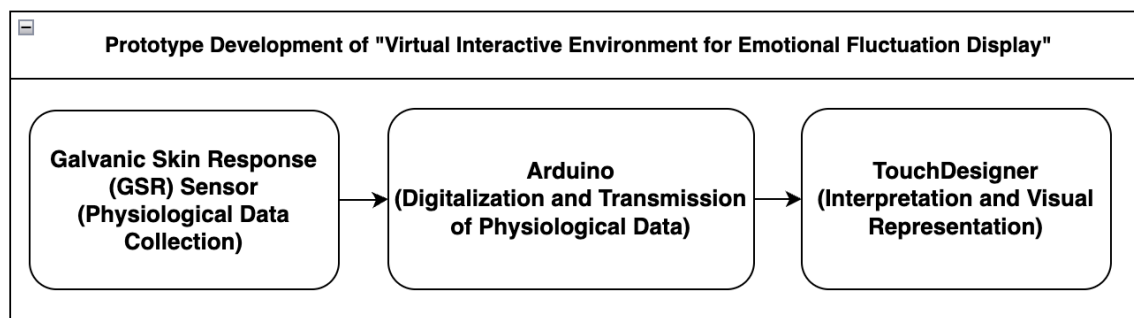


Figure 10: Schematic Diagram of Prototype Architecture
(Data Source: Created by this study)

Expert Interview Method

In this stage, the expert interview method is utilized to conduct in-depth interviews with experts and scholars from various fields, including psychologists, long-term care center managers, and associate professors in digital media design departments at universities. The interviews cover a range of topics from basic interactive design concepts to deeper analyses of emotional granularity, providing diverse recommendations for the prototype and future development. The main focus of the interviews includes identifying target audiences, understanding user needs, evaluating the prototype architecture, and planning for future development.

Interviewee	Interaction Design	Emotion Analysis	Expertise/ Experience	Date	Location/ Format
Mr. Weng	Shallow	Deep	Psychologist	2023/12/5	Online interview
Ms. Huang	Shallow	Medium	Long-term Care Base Manager	2023/12/9	Online interview
Mr. Zhang	Deep	Medium	Digital Media Design	2023/12/19	Face-to-face interview

Table 4: Expert Interview List
(Data Source: Created by this study)

Research Analysis

According to literature, Russell and other scholars believe that the characteristics of environmental emotions can be explained using only Arousal / Nonarousal and Pleasure / Displeasure. By mapping the CIELab* color space to the environmental emotional experience circle proposed by Russell (1980), a simple emotional indicator can be created

with the Pleasure / Displeasure axis as the X-axis and the Arousal / Nonarousal axis as the Y-axis.

In Figure 12, the level of resistance in the Grove-GSR skin conductance sensor is used to determine the degree of Arousal / Nonarousal (Y-axis). The positive and negative scores on the positive and negative emotional scales are each divided by 5 to correspond to the scale on the X-axis, determining the degree of Pleasure / Displeasure. Based on the distribution of points on the X-axis and Y-axis, the corresponding representation in TouchDesigner is derived.

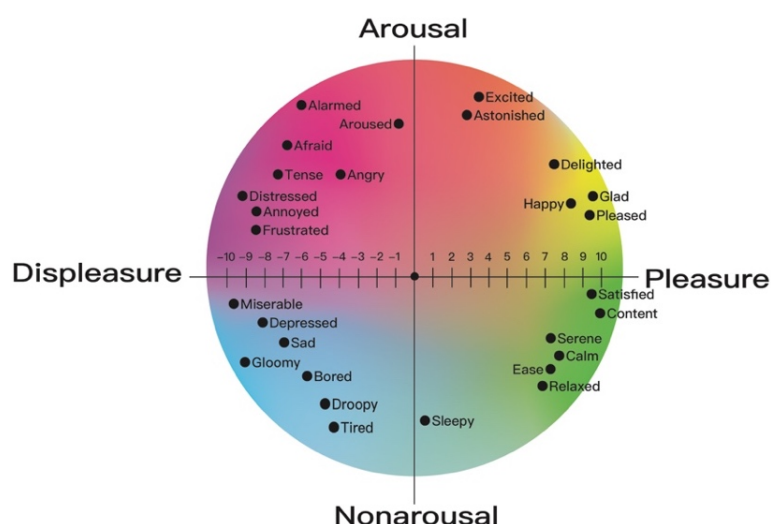


Figure 11 Relationship between CIEL*a*b* color space, PANAS and Russell's emotional experience

The resistance level sensed by the Grove-GSR skin conductance sensor determines the color variation in the CIELab* color space, where higher resistance values indicate relative relaxation by the participant. In Figure 13, during the testing process, the participant's deep breathing caused a sudden rise in the waveform of the Grove-GSR on the Arduino, affecting the performance of the Touch Designer interactive visual software. This allows the participants to observe their own emotional expressions visually.



Figure 12: The waveform presented by Grove-GSR on Arduino

In this stage, based on the previous phases' integration of emotional color, form definitions, and participant processes, the "Virtual Interactive Environment for Emotional Fluctuations" participant flow and prototype are designed. Participants undergo measurements using positive and negative affect schedules and wear Grove-GSR skin conductance sensors on their fingers. The waveform frequency presented on Arduino determines the size, shape, and color changes in Touch Designer software. This allows for the assessment of the current emotional fluctuations, frequency, and stability.

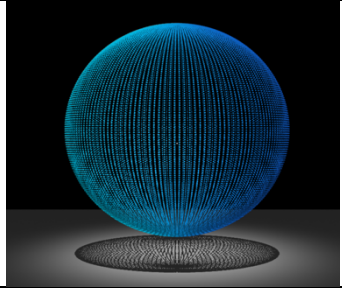
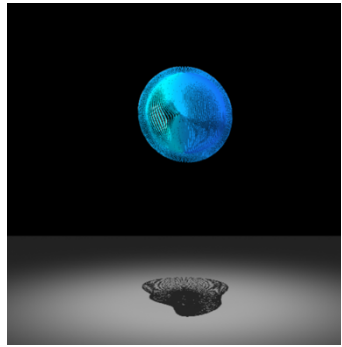
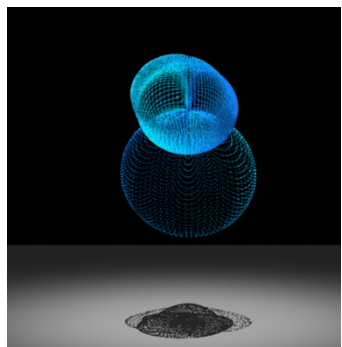
Arousal	Model Size	Magnitude of Fluctuation	Emotional Description	Prototype Screen
Low arousal	Large	Small	The resistance value is high, indicating a mild level of tension, while maintaining normal breathing.	
Moderate arousal	Medium	Medium	The resistance value decreases, indicating a moderate level of tension, with an increase in skin conductivity. The model shrinks, and there is a slight increase in the amplitude of fluctuation.	
High arousal	Small	Large	The resistance value is extremely low, indicating a high level of tension, with a significant increase in skin conductivity. The model shrinks, and there is a large amplitude of fluctuation.	

Table 5: Prototype Waveform Variations in the "Virtual Interactive Environment for Emotional Fluctuations"
(Data Source: Created by this study)

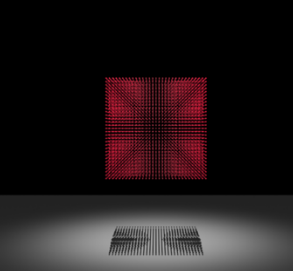
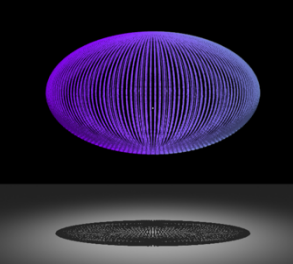
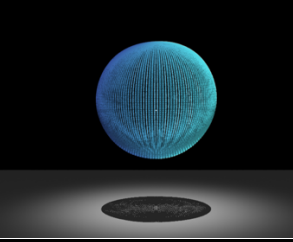
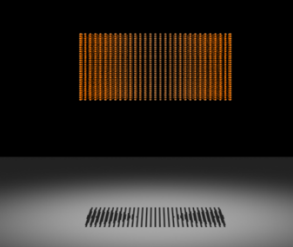
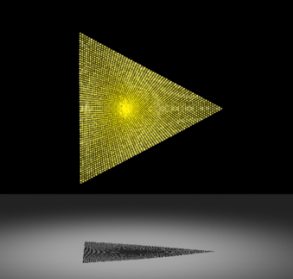
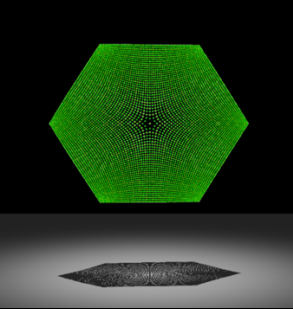
Emotion Identification	Color Variation	Shape Variation	Emotional Description	Prototype Screen
Alarmed Afraid	Red	Square	Based on the results from the Positive and Negative Affect Schedule, the pleasure score ranges from negative 0 to negative 3.	
Distressed Frustrated	Purple	Ellipse	Based on the results from the Positive and Negative Affect Schedule, the pleasure score ranges from negative 4 to negative 6.	
Miserable Depressed	Blue	Circle	Based on the results from the Positive and Negative Affect Schedule, the pleasure score ranges from negative 7 to negative 10.	
Excited Astonished	Orange	Rectangle	Based on the results from the Positive and Negative Affect Schedule, the pleasure score ranges from 0 to 3.	
Glad Happy	Yellow	Triangle	Based on the results from the Positive and Negative Affect Schedule, the pleasure score ranges from 4 to 6.	
Content Serene	Green	Hexagon	Based on the results from the Positive and Negative Affect Schedule, the pleasure score ranges from 7 to 10.	

Table 6: Prototype Model and Color Changes in the "Virtual Interactive Environment for Emotional Fluctuations"
(Data Source: Created by this study)

Research Findings and Recommendations

The research analysis reveals that the majority of participants provided positive feedback regarding the association between emotions and color changes in the prototype of the "Virtual Interactive Environment for Emotional Fluctuations." Additionally, they also responded positively to the correlation between color and shape variations. However, the correlation between emotional fluctuations and shape changes appeared less evident. Participants intuitively responded positively to the presentation of fluctuations and emotional dynamics.

The current study findings indicate that the association between emotions and shape changes did not evoke corresponding associations in participants. Future research will focus on improving and expanding this aspect.

Results and Conclusion

This study explores emotional expression through the "Virtual Interactive Environment for Emotional Fluctuations" with the goals of self-healing and creativity. The research outcomes include:

1. Creating a novel emotional interpretation space to facilitate self-reflection and regulation of emotions, thereby enhancing work efficiency.
2. Meeting the psychological needs of specific groups, encouraging emotional expression, and boosting confidence.
3. Providing new insights into virtual interactive spaces, emphasizing their immersive nature, interactivity, and imaginative potential, while reducing design and development costs.

The anticipated research value of this study, conducted through the "Virtual Interactive Environment for Emotional Fluctuations," aims to provide the following academic references:

1. Creation of a novel emotional interpretation space: This space facilitates self-reflection and emotion regulation, ultimately enhancing work efficiency.
2. Meeting the psychological needs of specific groups: The device's openness and inclusivity encourage individuals to express their emotions without the constraints of fixed standards. This aspect is particularly beneficial for individuals with unique psychological needs, fostering self-expression and boosting confidence.
3. Providing new insights into virtual interactive spaces: Virtual interactive spaces, which mimic real-world environments, are defined from the subjective experience of users. The elements of immersion, interactivity, and imagination in virtual spaces can significantly reduce time and spatial costs for designers and developers.

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Contact email: f200541005@gmail.com

***Exploring the Impact of VR Nostalgic Sandbag Game Experience on
the Happiness of the Elderly***

Yu-Chi Chen, National Yunlin University of Science and Technology, Taiwan
Chang-Franw Lee, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

With the trend of aging population in China, the well-being of the elderly has become the focus of social concern, and the rapid development of digital technology has provided a new way of life for the elderly, and Barsasella et al. (2021) showed that Virtual Reality (VR) has a positive effect on the well-being of the elderly. The purpose of this study was to investigate the effect of elderly people's participation in VR nostalgic sandbag game experience on their well-being. Through the VR nostalgic sandbag game (ForeVR Cornhole), elderly people can revisit their childhood memories and understand the effect of nostalgic games on their well-being. In this study, we used questionnaires to collect the happiness level of the participants, and recorded the behaviors and reactions of the elderly during the experience of the VR nostalgic sandbag game through observation, and finally conducted semi-structured interviews to understand the subjective feelings and experiences of the participants on the VR nostalgic sandbag game. As a result of this study, it was found that (1) to understand the subjective feelings of the elderly when using VR and their acceptance of new technology; (2) to record the behaviors of the elderly in the VR nostalgic sandbag game through the observation method, which can enhance and satisfy the quality of life and sense of well-being of the individuals.

Keywords: Virtual Reality (VR), Nostalgia, Gaming Experience, Elderly, Happiness

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1. Introduction

1.1 Background and Motivation

According to the National Development Council, Taiwan will enter a super-aged society by 2025 due to the aging population (National Development Council, 2023).

As the population ages, the happiness of the elderly becomes a major concern because it affects their quality of life and health. (Veenhoven, 2008).

Recent advancements in digital technology offer new ways of living for the elderly. Most older adults have a positive attitude towards new technologies, believing that technological progress will improve their quality of life and society as a whole (Li & Perkins, 2007).

A study by Barsasella et al. (2021) found that just 15 minutes of VR sessions per week over six weeks improved the happiness of elderly participants. The immersive experience of VR can boost mood and concentration and can also be used as a tool for nostalgia therapy. Nostalgia therapy helps improve the emotions and cognitive functions of the elderly by recalling childhood and past experiences, thus enhancing their happiness (Chaze et al., 2022).

1.2 Purpose

This study explores the impact of elderly participation in VR nostalgic sandbag game experiences on their happiness. Through the ForeVR Cornhole virtual reality nostalgic sandbag game, older adults can relive and enjoy childhood memories in a virtual environment. This helps understand their acceptance and feelings toward new technology, ultimately enhancing their happiness and quality of life. There is two point in the main purposes of this study:

1. Exploring how VR nostalgia sandbag games impact the happiness of older adults.
2. Understand the technology acceptance and personal feelings of older adults towards VR sandbag games.

2. Literature Review

This study focuses on how experiencing VR nostalgic sandbag games affects the happiness of elderly people. By playing these nostalgic games, seniors can relive their childhood memories, which brings them joy and happiness. The study also aims to understand how willing elderly people are to accept new technology, which could encourage them to try more tech-based activities. This could lead to more entertainment and learning opportunities, ultimately improving their quality of life and happiness. The research will explore three main areas:

2.1 Virtual Reality (VR)

Virtual environments, first proposed by Jaron Lanier in 1987, can create realistic settings that feel like the real world. Users can interact with these environments through sound, sight, and other senses, offering a fully immersive experience. Initially used mostly in the entertainment industry, VR technology has advanced and is now widely applied in various fields, such as medical treatment, travel, cuisine, and films.

Recently, due to an aging population, this technology has also been applied to senior care. A 2019 study by Tsinghua University in Beijing found that among six activities normal situations, watching TV, playing cards, interacting with pets, using VR, and visits from children, using VR had the highest emotional scores. The immersive VR experience provides sensory stimulation that helps seniors relax and feel happier.

2.2 Nostalgia Games

Nostalgia originally referred to the feeling of longing for one's homeland but now means longing for the good things from the past. The nostalgic effect of games, like nostalgia in other areas, has been theorized and proven by academics to positively impact an individual's subjective and psychological well-being. This includes self-assessment of life satisfaction and psychological flourishing (Wulf et al., 2018).

Here are some key points about how nostalgia affects happiness:

1. Nostalgia has a direct impact on entertainment outcomes, such as enjoyment and appreciation.
2. Nostalgia directly affects happiness through self-direction, existential, and social functions.
3. Nostalgia also has indirect effects on happiness, which are results of its impact on entertainment.

2.3 Happiness

It refers to feeling happy and satisfied emotionally, and experiencing things that stimulate happiness through our senses. Other studies have found that getting into the "Flow state" and being fully in activities can boost happiness and quality of life (Csikszentmihalyi, 1975).

International Society of Gerontechnology: "Gerontechnology is an interdisciplinary research that enables technology to provide more opportunities for the elderly. Its purpose is to provide the elderly with a healthier life and fuller social participation through product development, design and services to improve the quality of life of the elderly."

2.4 Literature Review Summary

With the aging population, there's growing interest in using VR tech for older adults. VR can affect older adults emotions and mental happiness, and nostalgic games can bring back childhood memories. We hope these games and VR can offer older adults folks fun immersive experiences, boost connections with family and community, enhance their happiness, willingness to use tech, and improve their quality of life and mental health.

3. Research Method

3.1 Method

This study used surveys, observation, and semi-structured interviews to understand the impact of VR nostalgic sandbag games on the well-being of elderly people. We focused on the behaviors and reactions during the experience. The final interviews aimed to understand the elderly's acceptance of technology and their personal feelings.

1. Questionnaire Survey

The Chinese Happiness Inventory (CHI) evaluates the differences before and after experiencing the VR nostalgic sandbag game.

Flow experience to measure whether seniors are immersed in the nostalgic state of the VR sandbag game, we use a 5-point Likert scale for evaluation.

2. Observation Method

In the experiment, observe and record the behaviors and reactions of the elderly during their VR experience.

3. Semi-structured Interviews

To further understand the subjective feelings of six elderly people and their acceptance of new technology, the interview content is divided into five main aspects, as follows:

- (1) Personal Information, Life and Activities
- (2) Reminiscence game to recall childhood (Entity and VR)
- (3) Experiencing VR after the heart flow experience feelings
- (4) Experience of VR operation feelings
- (5) Feelings towards new technology

3.2 Objects & Tools

This study was conducted at a community center in Yunlin, Taiwan, where 25 elderly participants experienced a VR nostalgia group activity game. From these, 6 elderly participants, aged between 74 and 88, who were more skilled in the game, were selected for further one-on-one experiments.

In this research using Meta Quest Pro VR for experimental tools (Figure 1) and ForeVR Cornhole for experimental games (Figure 2).



Figure 1: Meta Quest Pro VR.



Figure 2: ForeVR Cornhole.

3.3 Research Process

Our research is a one-on-one experiment, the process is about 30-40 mins. In the research we used before and after test of CHI, to know about their happiness, 6 of the older adults had completed their Pre-test two months before the VR game. After experiencing the VR sandbag game course, they will finish their Post-test.

Process Step following (Figure 3):

1. Introduction content & operations
2. Experience ForeVR Cornhole, record the behavior and reactions during the VR experience
3. Flow experience
4. Semi-structured Interviews
5. Give a gift

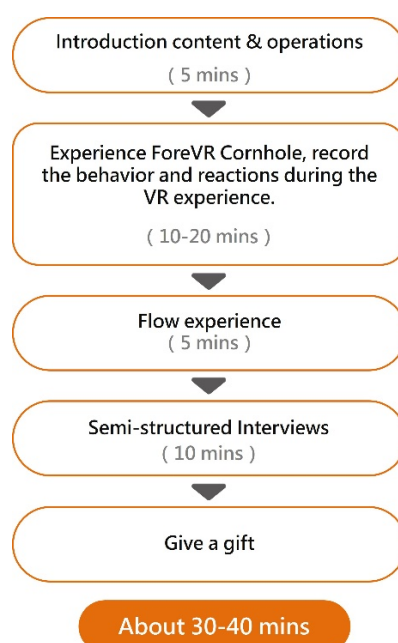


Figure 3: Research Process

4. Result

4.1 The Chinese Happiness Inventory (CHI)

In the result of CHI test before and after experiencing VR nostalgic gaming, we choose 6 older adults who were more skilled at operating the game for a happiness survey.

The paired samples t-test analysis in SPSS shows that there is a significant difference between the pre-test and post-test scores on the happiness scale ($t=-3.64$, $p=0.015<0.05$).

		(n)	(M)	(Sd)	<i>t</i>	<i>p</i>
CHI	Pre-tests	6	13.17	2.23	-3.64	.015*
	Post-tests	6	18.00	3.63		

Note: * $p < 0.05$, there is a significant difference

Table 1: CHI Pre- and Post-tests Paired Sample t test

4.2 Flow Experience

The average score for flow experience is 4.32, and which hitting 4 means ($M=4.32$, $SD=0.23$) the participants were really immerse into the VR experience. The average experience time was 912 seconds (15.2 minutes).

	Time	Flow experience	
(n)	(s)	(M)	(Sd)
P1	970	4.38	0.23
P2	803	4.25	
P3	1076	4.50	
P4	952	4.38	
P5	1053	4.50	
P6	618	3.88	
Total	912	4.32	

Table 2: Flow experience & Time

4.3 Observation Method

Here are some observed behaviors of elderly people recorded through observation methods:

1. They explore the virtual environment and interact with virtual objects because they find it novel.
2. They express enjoyment and interest in the virtual experience, wanting to keep playing. With more playtime, they find it easier and smoother (Figure 4). They show excitement and curiosity when using VR, feeling amazed by the scenes and games in the virtual environment.
3. If they miss the target while throwing the beanbag, most elderly people feel disappointed.
4. Some participants actively teach others how to use the controllers and play the game, which promotes social interaction and helps each other learn (Figure 5).

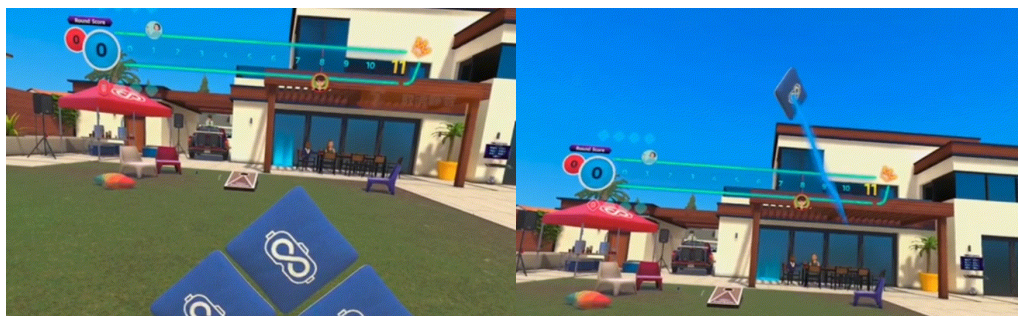


Figure 4: Elderly people playing a nostalgic VR beanbag game.



Figure 5: Actively teaching other elderly how to use controllers.

4.4 Semi-structured Interviews

(1) Personal Information, Life and Activities

From interviews and surveys, we found that six elderly women, aged 74 to 88, participated. Two did not use technology, while four used their phones daily for socializing, entertainment, and learning. They were active in community activities like volunteering and cleaning, interacted with neighbors and family, and often played board games. Most believed that learning new things helps keep them feeling active.

Based on the analysis, we understand that the elderly participants have different experiences with technology. However, they are all active in community activities, maintain a lively attitude through interaction and learning, value their community and social connections, and continuously seek learning and growth.

(2) Nostalgic Game to Recall Childhood (Entity and VR)

Through the interviews, we found that most people had played the traditional sandbag game. P6 mentioned that they often had to take care of children when they were young, so they had very little playtime. As a result, P6's flow experience average was lower compared to other participants.

Participants found the VR nostalgic sandbag game interesting. P4 mentioned that playing with technology and family helps keep the mind active and improves hand-eye coordination.

Some recalled tough times or childhood fun, but some felt the VR environment didn't match their childhood, so they couldn't fully recall their past.

From the analysis, we found that participants had different past gaming experiences and childhood memories, but they all felt satisfied and happy experiencing the VR nostalgic sandbag game. Some recalled memories from nostalgic games, while others felt the VR environment was different from their childhood. However, everyone was open to the new technology experience and enjoyed the fun and challenges it brought.

(3) Experiencing VR After the Flow Experience Feelings

Through interviews, we found that older adults get so into playing games that they lose track of time. Older adults enjoy experiencing VR and find playing nostalgic sandbags games in VR fun and satisfying.

(4) Experience of VR Operation Feelings

Participants did not experience any physical discomfort during the game. They found it easy to use and watch the VR scenes. Some felt nervous at first, but it got easier with practice. A few mentioned having difficulty throwing the sandbag and wished for simpler controls, but overall, they did not find the process difficult.

(5) Feelings Towards New Technology

Participants felt that playing nostalgic games improved their quality of life and mental health, making them happy and helping them forget their worries. It was especially beneficial for keeping older adults' minds active. Most older adults believe that continuing to use technology or taking experience courses would increase their happiness because these activities not only teach new knowledge but also bring more joy and challenges.

5. Conclusion

This study found that older adults felt significantly happier after participating in VR games. The games had a positive impact on their happiness. Despite differences in their past gaming experiences and childhood memories, they enjoyed the VR nostalgic beanbag game. They felt it helped keep their minds active, slowed cognitive decline, and improved their quality of life.

Elderly individuals show a positive attitude towards new technology during gaming, which not only offers them a new form of entertainment but also enhances their physical and mental health, as well as social engagement. The study observed that seniors interacted socially, helping each other with game skills and enjoying the experience together. Most found no difficulty in operating the games and believed this experience positively impacts their mental well-being and happiness. They are willing to continue participating in similar technological activities or experiences to maintain an active lifestyle.

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Contact email: a0928815259@gmail.com

***Unravelling Social Narratives in Advertisements on
India's Sustainable Development Goals***

Manvi Goel, Indian Institute of Technology Roorkee, India
Vinay Sharma, Indian Institute of Technology Roorkee, India

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This study explores the linguistic representation of environmental, social and governance issues (ESG) within advertisements, employing the Corporate Social Responsibility (CSR) theory as its theoretical framework. In the context of India's dynamic growth and its pledge towards accomplishing the 17 Sustainable Development Goals (SDGs), marketers stand at the intersection of societal responsibility and brand communication. Through an examination of 84 commercials that address a spectrum of social concerns, this study seeks to identify and illuminate the prevailing societal issues that necessitate attention. In navigating this inquiry, we conducted text analysis to examine the linguistic features and intricacies of these advertisements. The prominence of themes such as "Good Health and Well-being" and "Gender Equality" underscores their significance in the discourse. Additionally, the distinct linguistic patterns between different SDG themes shed light on the nuanced communication strategies employed to the social communication. This academic exploration contributes valuable insights into the intersection of marketing, societal responsibility, and the linguistic strategies employed in addressing critical issues.

Keywords: Social Advertising, Sustainable Development Goals, Language

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Introduction

Language serves as a powerful mechanism which subtly influences one's nature of thoughts (Carnevale et al., 2017), therefore it is also important to study the linguistic portrayal of environmental, social and governance issues (ESG) within advertisement as advertising plays a pivotal role in shaping societal perceptions and behaviours. Research indicates that ads not only influence brand personality, credibility and attitude towards a brand (Sander et al., 2021) but also reflect and impact societal norms and values (Wakefield et al., 2009). Advertising can shape attitudes and perceptions, especially among younger demographics who are more vulnerable to media influence (Wakefield et al., 2009). Advertisements portraying specific lifestyles or behaviours as desirable can contribute to the normalization of these behaviours within society. For example, the efficacy of social communication in influencing societal issues is underscored by its impact on memory for pro-nutritional messages, drawing on theories rooted in advertising, information processing, and cognitive psychology (Samson, Nanne & Buijzen, 2021). This emphasizes the motivational significance of appeals embedded in social communication. Consequently, it is crucial to analyse advertisements and how they are communicated (their communicative language), particularly those that raise awareness about social and environmental issues.

Marketing communicators bear a dual responsibility, not merely confined to the enhancement of corporate image, motivation of stakeholders, and the fortification of brand loyalty but extending towards the exhibition ESG issues in consonance with Corporate Social Responsibility (Lantos 2002). This multifaceted approach aims to elevate awareness about societal issues while cultivating a positive brand perception, reflecting a broader commitment to societal welfare (Chandy et al. 2021). This strategic duality aligns with the overarching narrative of contributing to a better world through conscientious marketing practices. A tangible example of this is the collaborative study conducted by management consulting companies, McKinsey and NielsenIQ, investigate the sales growth of products (over 28%) that are marketed and communicated as environmentally and socially responsible as compared to the ones who took no such approach (McKinsey & Company, 2023).

Corporate Social Responsibility

Corporate Social Responsibility (CSR) signifies a strategic approach focused on upholding by ethical standards and proactively contribute to societal and environmental welfare. Departing from viewing CSR merely as a marketing tactic, it embodies a commitment to acting as responsible citizens within the social ecosystem. The term "corporate social responsibility," or "CSR," refers to a company's commitment to generating financial and economic benefits to the shareholders and conduct business ethically and enhancing societal welfare. It involves initiatives across various domains, including philanthropy and sustainability which benefit the financial interest of the organisation (Lantos, 2002). Marketing communication concepts such as cause-related marketing, environmental marketing, social responsible buying, and sustainable consumption are intricately woven within the CSR framework, reflecting a shift from business-centric to society-centric perspectives (Pagel & Gierl, 2010). In the contemporary globalized and socially conscious environment, advertisers bear the responsibility of extending beyond product promotion, focusing on the communication of social issues. This heightened responsibility aligns with the United Nations' call for businesses to play a central role in achieving the Sustainable Development Goals (SDGs) (Jones, Comfort & Hillier, 2016).

Numerous studies have demonstrated the tangible benefits of CSR for businesses, including enhancing brand reputation and driving long-term profitability while also contributing positively to society. For instance, ESG ads initiatives gained prominence among brands such as Nike, Dove, and Gillette. For example, in 2018, Nike launched the ad “Dream Crazy” addressing issues of racial equality and social justice. The campaign sparked a significant amount of media attention and public discourse. Despite some backlash, Nike saw a 31% increase in sales (Sweeny, 2018) and revenue of 6 billion (Linnane, 2018) following the campaign launch. Dove’s ‘Real Beauty’ campaign attracted audience with their body positivity and self-esteem message. Consumers appreciated the authentic representation and the positive messaging about beauty and self-esteem. Sales of Dove products increased, and the campaign became a long-term brand strategy (Bold, 2015). Gillette recognized that ‘the best a man can get’ campaign required a new dimension to emotionally connect with consumers. The brand took a leading role in shaping attitudes and male perspectives on toxic masculinity and gender equality and changed stereotypes (ETBrandEquity, 2023). Such initiatives underscore the strategic role of ESG advertisements in aligning business objectives with societal welfare, demonstrating its potential to foster sustainable development and enhance corporate credibility.

Language of ESG Advertisements

Effective communication of ESG initiatives must be culturally and linguistically attuned to effectively connect with diverse audiences. Advertisements in different languages can have varying impacts due to the nuanced levels of expression each language offers. Some languages have multiple terms for concepts that others express with a single word (Boroditsky, 2001), influencing the specificity and detail of ESG messages. Additionally, the emotional resonance of words can differ across languages; terms that carry deep emotional weight in one language may not evoke the same feelings when translated. Understanding these nuances is crucial for crafting impactful ESG communications (Pavlenko, 2005). Furthermore, different cultures have different communication styles; some favour clear, direct communication, while others tend to take a more deceptive approach. Aligning the communication style with the audience's preferences can significantly enhance the effectiveness of ESG advertisements (Hall, 1976). Another important factor in determining how reliable and trustworthy individuals find a communication is the set of words selected. In order to effectively communicate ESG messaging and increase awareness among their target audiences, marketers require meticulously evaluate the language and terms they choose.

While prior research has delved into sustainability in advertising (Claro & Esteves 2021; Anwar & El-Bassiouny 2019; Jones, Comfort & Hillier 2016), the examination of language in advertisements, particularly the choice of words, remains a pertinent and underexplored area of study. Despite studies exploring linguistic features in conveying corporate values (Rajandran 2016; Fuoli 2012; Livesey & Kearins 2002), a significant gap persists. The present study addresses this gap through text analysis specifically centred on SDG-themed Indian advertising communication. This analytical approach seeks to unveil nuanced linguistic strategies employed across different languages, providing insights into the communication dynamics related to SDGs in advertising. The study's academic pursuit is rooted in the recognition of the pivotal role language plays in shaping perceptions and influencing societal engagement.

We examined 84 Indian advertisements to study how ESG (Environmental, Social, and Governance) practices and awareness are depicted, and to analyse the language utilized by

advertisers. This examination provides insights into how corporations perceive and address social issues, enabling us to assess whether their ESG advertisements align with broader societal objectives. Several factors motivated the choice to concentrate on India for this study. Firstly, India's vast array of cultures, languages, and traditions provides a distinct backdrop for examining advertising and its portrayal of social issues such as poverty, inequality, and environmental matters. Understanding the corporate social responsibility (CSR) policies and ESG communication of Indian corporations has become increasingly important, especially considering India's growing influence as a major player in the global economy. As stakeholders emphasize greater transparency and responsibility, Indian companies face growing pressure to demonstrate their commitment to social and environmental causes. Thirdly, India's status as the world's fifth-largest economy, actively pursuing the Sustainable Development Goals (SDGs) and making significant strides, underscores its relevance in global sustainability efforts as reflected in its six-point ascent in the Sustainable Development Goals Index (NITI Aayog, 2021). Lastly, India's expansive and expanding consumer market presents substantial opportunities for CSR initiatives and ESR advertisements to drive impactful change and contribute to sustainable development by aligning business objectives with the SDGs.

This study seeks to address two key inquiries:

- a) What societal issues take precedence in social advertisements addressing India's Sustainable Development Goals?
- b) Does the use of words and terminologies significantly differ between Hindi and English language social advertisements?

By examining how advertising, societal demands, and CSR overlap, we promote ethical business behaviours that support long-term growth. This is in line with the increasing worldwide shift towards ethical consumerism and corporate responsibility.

Research Methodology

Our methodology involved a comprehensive exploration of social advertisements drawn from the expansive repository of Ad forum website. To ensure relevance and alignment with the evolving landscape of Sustainable Development Goals (SDGs), we specifically curated a dataset spanning from 2015 to the April 2024.

The first phase of our methodology encompassed meticulous coding, whereby each social advertisement (84) was systematically categorized according to prevalent social themes. This categorization was then aligned with the corresponding Sustainable Development Goals (SDGs). For instance, an advertisement advocating for women rights has been coded under the theme "Empowerment" and aligned with SDG Gender Equality. Another example could be an advertisement promoting environmental sustainability, coded under "Environment" and associated with SDG Climate Action.

Subsequently, we employed text analysis technique, such as generating word clouds, to unravel the linguistic nuances within each identified theme. This process facilitated a granular understanding of the terminologies and language constructs commonly utilized in social advertisements. By deciphering word clouds, we aimed to discern patterns indicative of effective audience engagement and potential catalysts for societal change. As a final step, our methodology involved analysis of Hindi and English language advertisements. We sought to ascertain whether there were discernible differences in the choice of terminologies and

linguistic approaches when addressing social issues. This comparative study delved into the linguistic intricacies that contribute to the cultural resonance and societal impact of advertisements in different languages.

Result and Discussion

A. Theme-Based Result

1. Highly Represented Themes

- a. Good Health and Well-being (26.2%): The discernible prevalence of advertisements addressing health-related issues underscores a substantial societal commitment to well-being. Marketers strategically prioritize messaging that contributes meaningfully to public health awareness.
- b. Gender Equality (19%): The commendable emphasis on gender equality signifies a concerted effort to address deeply rooted gender-based challenges. Advertisements, in this context, manifest a dedicated commitment to fostering inclusivity.

2. Moderately Represented Themes

- a. Reduced Inequalities (16.7%): The considerable representation of advertisements addressing societal inequalities suggests a conscientious societal commitment to the principles of social justice. Advertisers, in turn, recognize and respond to the imperative of addressing disparities.
- b. Climate Action (7.1%): The moderate representation of climate action themes indicates a growing societal awareness of environmental sustainability. Advertisements, in this realm, reflect a commendable willingness to engage with ecological concerns.

3. Low or No Representation

Partnership for the Goals (4.8%), while not the highest, indicates some acknowledgment of the importance of collaborative efforts to achieve sustainable development. The absence of ads associated with Decent Work and Economic Growth, Industry, Innovation and Infrastructure, Sustainable Cities and Communities, and Life Below Water prompts reflection on potential areas for strengthening or diversifying messaging strategies. Pictorial presentation of the result can be seen in Fig. 1.

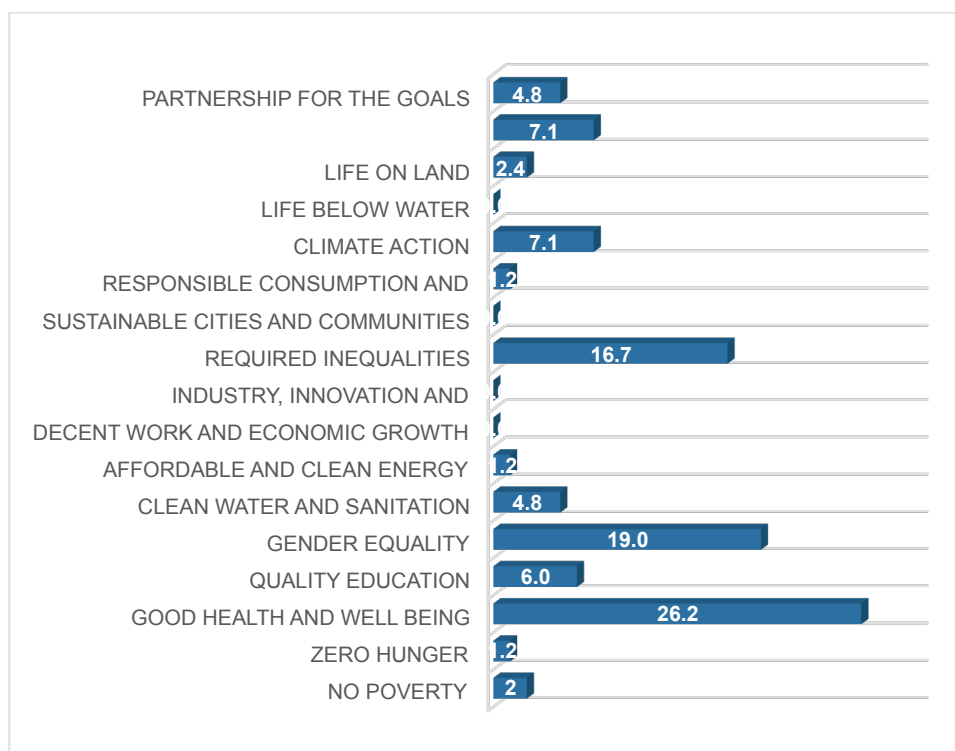


Fig. 1 Proportion of SDG themes in Indian social advertisements

B. Terminologies-Based Result

For practical purposes, we have two major addressed SDG theme of advertisements; Good health and wellbeing (26.2%) and Gender equality (19%). We have observed linguistic nuances in words and terminologies used in social advertisements. For example, Fig. 2 shows Gender equality (English) concentrates on nuanced societal issues, encompassing violence, movement, and challenges faced by gender, reflecting themes of strength and independence. In contrast, Gender equality (Hindi) addresses broader facets of daily life, job, family, body characteristics, and events in one's life as shown in Fig. 3.



Fig. 2: Word cloud of SDG Gender equality (English language ad)



Fig. 3: Word cloud of SDG Gender equality (Hindi language ad)

Similarly, Good Health and Well-being (English) prioritizes societal and environmental aspects, emphasizing community well-being, hygiene practices, and larger-scale problem-solving (Fig. 4). Conversely, Good Health and Well-being (Hindi) accentuates personal well-being, individual experiences, and emotions. The English version addresses broader societal concerns, while the Hindi counterpart focuses on individual well-being (Fig. 5).



Fig. 4: Word cloud of SDG Good Health and Well-being (English language ad)



Fig. 5: Word cloud of SDG Good Health and Well-being (Hindi language ad)

The linguistic disparity observed between English and Hindi language social advertisements underscores a strategic choice in communication. English ads leverage more scientific terminologies and disease-related vocabulary, catering to a broader understanding of social issues with a potential medical and formal inclination. This choice aligns with the objective of conveying societal concerns effectively. In contrast, Hindi, being a native language, resonates with the daily lives and personal experiences of the Indian audience. The preference for Hindi in ads reflects a deliberate effort to connect with individuals on a more personal and relatable level, emphasizing the significance of cultural and linguistic nuances in shaping effective social communication strategies.

Conclusion

This research provides valuable insights into the interplay between marketing, societal responsibility, and linguistic strategies. The significant presence of themes such as "Good Health and Well-being" and "Gender Equality" within these advertisements indicates a strong societal focus on these critical areas. This trend underscores the alignment of marketing messages with public health objectives, reinforcing the role of advertisements in promoting community health and hygiene practices. The theme of "Gender Equality" reflects a societal acknowledgment of the importance of equal opportunities and rights for all genders, illustrating the commitment of advertisers to foster a more inclusive society. It emphasizes the critical role of language in shaping societal perceptions and advancing sustainable development. The study also reveals notable linguistic differences between English and Hindi advertisements. English-language ads frequently use scientific terms and disease-related vocabulary, aiming for a broader and more formal understanding of social issues. In contrast, Hindi advertisements emphasize personal well-being and individual experiences, highlighting an effort to connect with the audience on a more personal and relatable level. This strategic choice in communication underscores the importance of cultural and linguistic nuances in crafting effective social messages. Marketers are encouraged to adopt linguistically sensitive approaches in their ESG communication to resonate their messages more effectively. As India progresses in its dynamic growth and dedication to the SDGs, the influence of advertisements in addressing societal and environmental issues will continue to be crucial in driving positive change.

Implications

This study contributes to the existing CSR and advertising literature by examining the complex linguistic aspects associated with the Sustainable Development Goals (SDGs). On an applied level, the insights gained from this study offer significant recommendations for advertisers, marketing professionals, and state agencies. A comprehensive understanding of linguistic preferences and resonances in distinct languages, with a specific focus on Hindi and English within the Indian context, facilitates more efficacious and culturally sensitive communication strategies. Our study delivers valuable insights for marketers seeking to create and design campaigns that drive substantial social influence. By understanding which SDG themes resonate most with Indian audiences, marketers can tailor their messaging to align with societal values and priorities. By identifying common themes and terminologies in advertisements, corporations can better understand societal expectations and preferences. This knowledge informs CSR strategies, enabling companies to address relevant social issues authentically. Our findings contribute to policy discussions aimed at promoting responsible advertising practices and corporate accountability. Encouraging cooperation among government, private sector, and civil society, policymakers can develop a robust environment

for CSR endeavours aimed at fostering social improvement. This practical application aligns with the evolving landscape of responsible business practices, emphasizing the pivotal role of effective communication in fostering positive societal change.

Limitations and Future Scope

This study's exclusive focus on English and native language content may limit insights from regional language speakers. A recommendation is to incorporate visual analysis for a comprehensive understanding, recognizing the potential impact of visual elements. Future research should conduct detailed content analyses within each SDG theme and explore cultural nuances globally. Additionally, sentiment analysis on textual content could unveil emotional tones, enhancing comprehension of advertiser-audience connections. In conclusion, this research initiates comprehension of linguistic nuances in SDG-themed ads, providing a foundation for subsequent studies to delve into cultural variations and the evolving landscape of sustainable development messaging in advertising.

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It Can Exist, but Not in My Backyard!
Discussing the Diffusion Effect of Neighbor Nimby From the Relationship Between
Community Park Green Space and Ground Floor Entrance and Exit Section

Shu-Li Huang, National Yunlin University of Science and Technology, Taiwan

Szu-Yu Tzeng, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The aim of this study is to explore the impact of the Not In My Backyard (NIMBY) effect on the ground floor entrance and exit section and community park green space in urban design. Through the analysis of various community park cases, this study found that the diffusion of NIMBY effects has a significant impact on the design of the ground floor entrance and exit section, especially in high-density, large-scale residential redevelopment areas after urban expansion. In these areas, the territoriality and distance significantly influence the openness and comfort enhancement of the ground floor entrance and exit section, aiming to mitigate the negative impacts brought about by the NIMBY effect. Meanwhile, as part of the YIMBY system, community park green spaces also need to consider the diffusion of their informal, diverse by the NIMBY effects. This article use case analysis (environmental behavior) and semi-structured interviews (grounded theory) as research methods. Focusing on issues such as optimizing the layout and facilities configuration of the ground floor entrance and exit section and accessibility of community park green spaces. The final research contribution lies in two aspects. Firstly, it examines how the NIMBY generated by territoriality and distance influence civic awareness. Secondly, considering the structural conflict stemming from spatial imbalance and benefit distribution issues generated by community public green spaces.

Keywords: Not in My Backyard (NIMBY), Ground Floor Entrance and Exit Section, Community Park Green Space (Public Green Space), Territoriality, Distance

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Introduction

Due to the impact of colonization, Taiwan's urban development history can be divided into two distinct periods, with the Japanese colonial period as the demarcation point. Prior to this period, urban development focused on the organic growth of traditional Chinese settlements, and public green spaces such as parks were relatively underdeveloped. It was not until the Japanese colonial period that the concept of "public green spaces" began to emerge clearly, influenced by Western ideas. With the progress of urbanization, people's concern for the quality of the urban environment and living conditions increased, prompting urban planners to emphasize the construction of various scales of public spaces within cities. These included Central Parks, Regional Parks, Community Parks, and Pocket Parks. However, the specific timing of their emergence varied by region, with different cities beginning to plan and build community neighborhood parks at different points in time.

In traditional Western urban planning strategies, "public green spaces" are a quintessential example of "Yes In My Backyard" (YIMBY) facilities, conveying an undoubtedly positive environmental atmosphere. However, when considering these facilities from the perspective of stakeholders, ranging from local government and the broader community to the immediate neighbors and secondary surrounding residents affected by the park, the fundamental debate lies in whether the environmental behavior generated is inevitable. If so, the crux of managing strategies with the goal of maximizing public benefit is not merely about the YIMBY facility itself, but rather whether the information conveyed by the facility is accurate, complete, limited, transparent, and meets the basic criteria of symmetry.

Based on the above, this paper examines how the NIMBY (Not In My Backyard) effect influences the design and use of community parks and green spaces in large suburban communities. Specifically, it explores how the openness and comfort of ground-floor residential courtyard spaces are affected by the community environment. Finally, the discussion focuses on how the relationship between community parks and residents can transform from that of NIMBY facilities to YIMBY facilities.

Literature Review

1. Boundary and Territory

The "boundary" is a noun specifically used to delineate borders and limits, often employed in the context of national borders, county lines, community divisions, residential boundaries, and the like. On the other hand, "territory", in the field of ethology, refers to a specific area occupied by an individual within a particular species, used to resist the intrusion of conspecific or heterospecific individuals. In the study of 'residential territories,' previous research in indigenous traditional territory surveys has focused on discussions related to land management. The text describes changes in the territories of specific groups, land rights relationships, and subsequent investigation and assessment recommendations.

In contrast to this, the field of design psychology proposes a more in-depth discussion focused on 'identity' and the 'residential effect,' beyond memory, ideals, comfort, and happiness. The field of study posits that the individual characteristics of residents and their living conditions, encompassing both material and psychological aspects, serve to accentuate the territoriality inherent in biological individuals or groups within specific spatial configurations, such as single-entrance detached residences or gated communities. On the

other hand, it ensures safety within the domain of daily life and the establishment of defensive spaces externally. However, a stance extending from individual residences to communities has not been observed. In light of this, the present study conducts an in-depth investigation into the adjacent and internal facets of ground floor entrance and exit section of a detached house in single-entrance residential units and their external facades.

2. Openness/Closure and Security

The concept of 'security' is a fundamental requirement for residential environments. In the fields of architecture and civil engineering, it is intricately linked to factors such as residential satisfaction, community layout, spatial openness, and smart living. The research findings underscore the significance of external environmental threats and evolving societal dynamics as pivotal contributors to the perceptual variations in residential environments. Furthermore, research primarily centered on the elderly demographic is constrained to strategies for mitigating risk factors following age-related functional decline and post-space adaptation (remodeling).

Based on this research review, it is evident that the establishment of " security " in living environments necessitates a close integration of the residential and community spaces at both the psychological (internal) and environmental (external) levels, achieved through the active participation of residents or community members. This study focuses on the delineation forms and materials of ground floor entrance facades, elucidating the characteristics and issues related to safety that they manifest.

3. “Not in My Back Yard, Nimby” Effect

"NIMBY facilities" refer to facilities that the local population does not want to accept. However, from the standpoint of ensuring urban quality and the proper functioning of social public welfare, these facilities are unavoidable. Since the Industrial Revolution, with the expansion of urban populations and residential areas, these NIMBY facilities have gradually fomented negative sentiments among nearby residents due to the tangible or potential adverse effects on their daily lives (such as air pollution, noise pollution, and environmental filth). This sentiment has led to the firm articulation of slogans like "Not in my back yard," "Not on our street," "Locally unwanted land use," and "Not on planet earth" to express dissatisfaction with the perceived risks (Lee, Y. J., Chen, B. T., 1996).

This study aims to challenge the concept of NIMBY facilities by exploring the opposite—YIMBY (Yes In My Back Yard) facilities. YIMBY facilities contribute positively to the living environment and convenience of surrounding residents. However, the literature review also reveals that positive facilities may still have negative impacts. In other words, a YIMBY facility might still generate NIMBY sentiments. This study will examine the facilities and activities in community parks, their impact on the spatial form of nearby residents' first-floor entrances, and conduct interviews to discuss this causal relationship.

Materials and Methods

This study centers on the "NIMBY facility" effect, aiming to explore the impact of the design of Lǐ-siǎng Park and Jǐ'-an Park on user behavior and overall usage patterns. The research is divided into two stages according to its objectives. First, a literature review will be conducted to define and challenge the concept of NIMBY facilities and discuss various trade-offs

related to the construction of public spaces. The second stage involves semi-structured interviews and field surveys to analyze and discuss the trade-offs faced by designers and users in the planning and practice of public spaces. By analyzing the two sampled parks within the community, this study will compile the design features and user experiences, providing insights for future urban public space planning.

1. Framework Design of the Study

This study identifies the width of the roads adjacent to community park boundaries and the front, back, and side views of surrounding buildings as key influencing variables. The study employs purposive sampling in the areas of Ideal Park and Jian Park. The research framework comprises three main aspects: (1) Organize the forms and considerations of community park boundaries adjacent to roads. (2) Explore the orientation and reasoning behind the community park's relationship with surrounding single-family homes. (3) Understand the impact of internal configurations and activities within the community parks on residents. The research framework is illustrated in Figure 1.

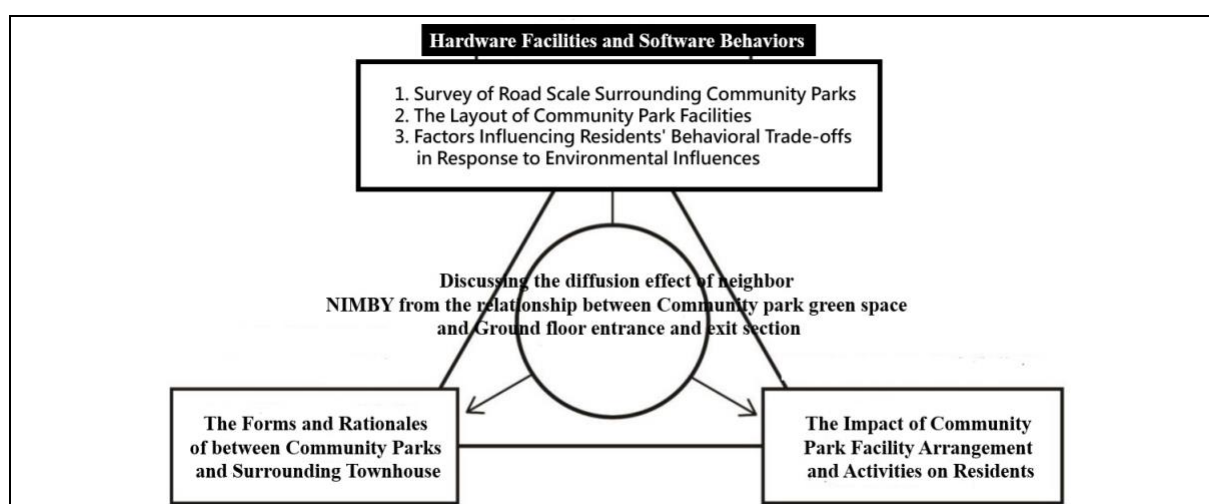


Figure 1: Research Framework Diagram.

2. Basic Information and Survey of Research Samples

The 'Lǐ-siǎng Community,' comprising Lǐ-siǎng Village and Da'an Village, is located in the Anping District of Tainan City, Taiwan (formerly known as Anshun), bordered by the Yan Shui River, Anping District, Zhongxi District, and Beiqu. Prior to the 1970s, it consisted of fish ponds and agricultural land adjacent to the drainage branch of the Jiannan Canal, but later evolved into a large-scale new town planning base to accommodate urban expansion. The research site is located in Lǐ-siǎng Village (1,784 households, population 5,212) and Da'an Village (1,538 households, population 4,220). Both villages have been developed by the Ideal Construction Company for over 40 years, and residents (either buyers or renters) mostly come from the laboring class migrating from outside the urban area. Various public facilities within the Ideal Village community, such as Lǐ-siǎng Park, Lǐ-siǎng Activity Center, designated market areas, and parking lots, have been gradually constructed over the past decade. In Da'an Village, public facilities like Ji'an Park, Yi'an Park, and parking lots have been developed in response to new construction projects, with Ji'an Park being established within the last two years.

The research scope involves sampling at Ideal Park and Ji'-an Park. The study focuses on the road width and internal facilities within the park area as significant variables. Each of the two villages within the Ideal Community has two parks, with Lǐ-siǎng Park being established earlier and Ji'-an Park later. In this study, Lǐ-siǎng Park is coded as Area A (A-1 side, A-2 side, A-3 side, A-4 side), and Ji'-an Park is coded as Area B (B-1 side, B-2 side, B-3 side, B-4 side). A purposive sampling of residential forms on all four sides of the parks in these two zones is conducted, with 25 cases in Area A and 20 cases in Area B, totaling 45 cases. Field surveys were conducted from November 2023 to May 2024 (Figure 2, Table 1).



Figure 2: Study Area and Sample: -siǎng Park and Ji'-an Park.

Research Samples for Area A (Residential Area around Lǐ-siǎng Park)				
Regional Location	Road Names	Width	Sample Number	Quantity
A-1 Side	Ln. 117, Da-an Street	6m	A-1.1/ A-1.2/ A-1.3/ A-1.4/ A-1.5/ A-1.6/ A-1.7	7
A-2 Side	Aly. 54, Ln. 150, Sec. 2, Hai-dian Road	9m	A-2.1/ A-2.2/ A-2.3	3
A-3 Side	Ln. 145, Da-an Street	6m	A-3.1/ A-3.2/ A-3.3/ A-3.4/ A-3.5/ A-3.6/ A-3.7 / A-3.8/ A-3.9	9
A-4 Side	Da-an Street	9m	A-4.1/ A-4.2/ A-4.3/ A-4.4/ A-4.5/ A-4.6	6
Research Samples for Area B (Residential Area around Ji'-an Park)				
Regional Location	Road Names	Width	Sample Number	Quantity
B-1 Side	Ln. 70, Yi-ji Street	9m	B-1.1/ B-1.2/ B-1.3/ B-1.4	4
B-2 Side	Yi-ji Street	9m	B-2.1/ B-2.2	2
B-3 Side	Ln. 86, Yi-ji Street	12m	B-3.1/ B-3.2/ B-3.3/ B-3.4/ B-3.5/ B-3.6/ B-3.7 / B-3.8	8
B-4 Side	No	No	B-4.1/ B-4.2/ B-4.3/ A-B.4/ B-4.5/ B-4.6	6

Table 1: Area of research: A and B

Survey Results

1. The Relationship Between Community Parks and Adjacent Road Width

The survey results found that the community park in Area A covers 44 square meters. Based on the surrounding environment survey and mapping results, the following observations were made: Side A-1 and Side A-3 have adjacent road widths of 6 meters. Side A-1 is mainly planned for an outer walkway (3 meters) around the park and temporary roadside car parking. Side A-3 is planned for a 6-meter outer walkway around the park, a strip of planted area, temporary roadside car parking, a public bicycle parking area, and an activity center entrance. Side A-2 and Side A-4 have adjacent road widths of 9 meters. Side A-2 is planned for an outer walkway (3 meters) around the park, temporary roadside parking, and a park entrance. Side A-4 is planned for an outer walkway (3 meters) around the park, temporary roadside car parking, a public bicycle parking area, and an activity center entrance.

The community park in Area B covers 71 square meters. Based on the surrounding environment survey and mapping results, the following observations were made: Side B-1 and Side B-2 have adjacent road widths of 9 meters. Side B-1 is mainly planned for an outer walkway around the park, double strip plantings (6 meters), and a park entrance. Side B-2 is mainly planned for an outer walkway around the park, single strip plantings (5 meters), temporary roadside car parking, and a public bicycle parking area. Side B-3 has an adjacent road width of 12 meters and is mainly planned for an outer walkway around the park and the playground entrance. Side B-4 is mainly planned for an outer walkway (3 meters) around the park.

In the survey samples from Areas A and B, objective observations indicate that the community park and adjacent road widths range from 6 to 12 meters. The road widths in Area A are smaller than those in Area B, primarily due to the age of the communities. The survey results show that 75% of the spaces are used for "temporary parking" and 25% for "public bicycle parking," indicating that residents' private domain behaviors extend significantly into the public domain. The main facilities of the community parks, along with the park walkways, are designed to maintain a certain distance from traffic roads for safety and comfort. However, on sides A-4 and B-4, only the outer park walkways separate the parks from the residences, resulting in a close proximity, especially near the basketball court facilities, which leads to a NIMBY (Not In My Backyard) effect due to the noise from activities. The relationship between the road widths adjacent to the community parks and the residents is crucial in terms of public domain awareness. Residents expect to maintain a proper distance from park facilities to avoid noise but also wish to use the ample road width for temporary parking.

The comparison between Areas A and B reveals that Area A is an older developed community with narrower roads between the street parks and residences compared to Area B. However, residents in Area A extend their private domain into the public space more than those in Area B. This results in a vibrant neighborhood social circle on one hand, but on the other hand, it is detrimental to the residents living adjacent to the park, creating a NIMBY (Not In My Backyard) effect. In contrast, Area B is a newly developed community within the past three years. The road dimensions are influenced by urban planning and land reorganization regulations, resulting in wider roads. In this survey, residents noted that while the wider roads enhance traffic convenience, they also increase the likelihood of accidents. Additionally, respondents pointed out that the greater road width in Area B is less favorable

for the surrounding residents' use, rendering the park merely a "green space" without effective utilization (Table 2).

Surveyed Locations	Usage Status of Park Adjacent Roads	Noise Presence or Absence	Proximity to Park Facilities	Residential Orientation
Side A-1 Road width of 6 meters	1. Perimeter walkway of the park (3M)	V	1. playground 2. outdoor gym equipment	Façade / 6 Side / 1
	2. Temporary car parking on the road			
Side A-2 Road width of 9 meters	1. Perimeter walkway of the park (3M)	V	1. outdoor gym equipment 2. outdoor gym equipment 3. playground	Side / 3
	2. Temporary car parking on the road			
	3. Park entrance			
Side A-2 Road width of 9 meters	1. Perimeter walkway of the park (3M)	V	1. outdoor gym equipment 2. outdoor gym equipment 3. playground	Side / 3
	2. Temporary car parking on the road			
	3. Park entrance			
Side A-3 Road width of 6 meters	1. Perimeter walkway of the park (3M)	V	1. community active center 2. public bicycle parking area	Façade / 8 Side / 1
	2. Double-sided strip planting area (3M)			
	3. Temporary car parking on the road			
	4. Public bicycle parking area			
Side A-4 Left road width of 9M No road width on the right	1. Perimeter walkway of the park (3M)	V	1. community active center 2. basketball court 3. public bicycle parking area	Back / 6
	2. Temporary car parking on the road			
	3. Public bicycle parking area			
	4. Activity center and park entrance			

Side B-1 Road width of 9 meters	1. Perimeter walkway of the park (3M)		1. badminton court 2. public bicycle parking area	Façade / 4
	2. Bilateral strip planting (3M)			
	3. Park entrance			
Side B-2 Road width of 9 meters	1. Perimeter walkway of the park (3M)		1. badminton court 2. public bicycle parking area 3. pavilion	Side / 2
	2. Unilateral strip planting (1.5M)			
	3. Temporary car parking on the road			
	4. Public bicycle parking area	V		
Side B-3 Road width of 12 meters	1. Perimeter walkway of the park (3M)		1. pavilion 2. playground	Façade / 8
	2. Entrance to the playground area			

Table 2: Park Adjacent Road Width and Usage Record

2. Trade-Off Between the Interface and Form of the Ground Floor Entrance and Exit Section of a Detached House and Adjacent Roads

According to the perspective on "trade-offs" proposed by Nickel, J., Duimering, P. R., & Hurst, A. (2022), this article adopts this viewpoint to analyze the choices made by residents/designers when faced with residential/design issues. It uses this perspective to predict the "static space mechanism" among the three trade-off mechanisms, where residents do not change parameters or clearly defined living spaces. Residents will try to determine feasible solutions within the original framework. This can mainly be divided into "Surrendering," "Satisficing," and "Optimizing" to interpret how the ground floor facades of residences around the community park adapt to community park activities through trade-offs.

The survey and interview results indicate that among the four sides of the community park in Area A, residents' trade-off choices in response to the discomfort caused by park activities through changing the form of their ground floor doorways are as follows: 14 out of 25 cases expressed "surrendering," 8 out of 25 cases expressed "satisficing," and 3 out of 25 cases expressed "optimizing." The study found that the "surrendering" option accounted for as high as 56% in areas A-1, A-3, and A-4. Comparing this with the layout of the park facilities, it was found that the basketball court, outdoor fitness equipment area, and outdoor play area are closer to these three sides. The ground floor doorways in these areas tend to be old and patchwork in materials, both closed off and unable to completely block external disturbances, thus preventing residents from fully enjoying the benefits of the community park. Ultimately, it was discovered that these three sides not only exhibit the most significant NIMBY (Not In My Back Yard) sentiments but also show a passive approach to trade-offs. The three cases expressing "optimizing" (A-1.2, A-1.3, A-3.8) feature function-oriented ground floor doorway designs. These houses have been renovated and designed to better mitigate external

disturbances, and their locations are not in the core areas of interference, resulting in lower negative sentiments in the trade-off performance evaluation.

The survey results for the four sides of Area B indicate that the facades of the new community residents are heavily influenced by the construction company. The trade-off choices are as follows: 9 out of 20 cases expressed "surrendering," 11 out of 20 cases expressed "satisficing," and none expressed "optimizing." So far, in areas B-1, B-3, and B-4, there have been no instances of residents independently making modifications, yet there are still residents who express being affected by park activities and are currently in the "surrendering" category, gradually shifting towards "optimizing." This is particularly notable in the B-3.3, B-3.4, and B-4 study areas, which account for 36% of the cases. According to the community park's planning layout, these sample areas are very close to high-activity facilities (such as the basketball court and play area). Additionally, there is no road in front of area B-4 to provide a buffer between the park and the residences.

In summary, the statistical discussion on the relationship between ground floor doorway forms and park activities reveals that Area A exhibits more diverse forms (single door, two-door split, three-door split). These doorways have lower thresholds, fostering neighborhood social relationships and even aiding the tacit mutual aid system within the community. In contrast, the forms in Area B are primarily determined by the construction company, typically featuring a fixed two-door split type, with doorways at a higher threshold compared to Area A. Only the B-3 side, being part of an older community, exhibits a more conservative and generic form. The proportion of the "optimizing" trade-off option is the lowest in this study. It is estimated that in Area A, this is due to the economic constraints of the old community residents. In Area B, the lower willingness to "optimize" is because most buildings in the community have been constructed within the last three years (Table 3).


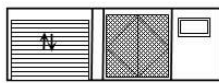
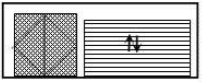
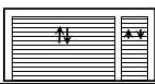
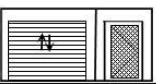
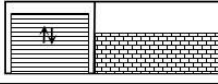
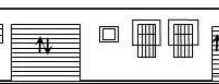

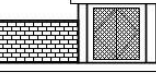
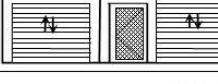
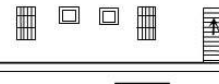




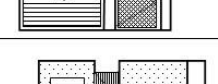
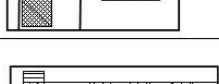


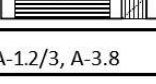
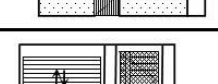
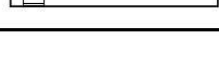
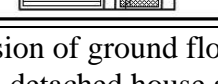
Static Space Mechanism	Study Sample Number	The division of ground floor entrance and exit section of a detached house			
Surrendering	A-1.1/4/5,A-2.1/2/3,A-3.1/2/4/5/7/9,A-4.1/2/4/5/6 B-2.1,B-3.3/4,B-4.1-6				
					
					
					
Satisficing	A-1.6/7,A-3.3/6 A-4.3,B-1.1/2/3/4,B-2.2,B-3.1/2/5-8				
					
Optimizing	A-1.2/3,A-3.8				

Table 3: The division of ground floor entrance and exit section of a detached house and Trade-off

Discussion and Conclusion

This study focuses on the "NIMBY (Not In My Back Yard) effect" and explores the impact of the planning of Ideal Park (Area A) and Ji'an Park (Area B) on the ground floor doorway forms of surrounding residents (users), as well as the various trade-offs faced in constructing public spaces. Through field surveys and semi-structured interviews, the research methods analyzed the design features of the parks and user experiences, aiming to provide insights into the design trade-offs for future urban public spaces.

Firstly, the field survey data reveals that in both the A and B research samples, although the NIMBY sentiments were taken into consideration during the park configuration planning phase to minimize adverse factors and enhance user comfort and safety in public spaces, there were indeed uncontrollable factors in the implementation outcomes. Area A primarily serves residents of the surrounding old communities on all four sides, with the park being quite closely situated to residential areas. In contrast, Area B primarily serves residents from distant old communities rather than the new community developments on all four sides, with the park being farther away from residential areas except on one side, and road dimensions being larger compared to Area A. This resulted in additional considerations regarding directing pedestrian and vehicular traffic flow and temporary parking. However, both areas feature open landscapes and multifunctional recreational areas, providing residents with spaces for relaxation and social interaction.

Furthermore, through semi-structured interviews, differences were found in user evaluations of the two parks. In Area A, users generally appreciated the lively social atmosphere and well-equipped facilities, but they found the environment to be unfriendly to the peace and quiet of surrounding residents. In Area B, users emphasized the social functions and convenience of transportation, but expressed concerns about the safety of the park environment. Empirical research has found that when communities allocate green resources (parks), unless they reduce the impact on surrounding residents' lives, it is not possible to effectively improve residents' quality of life. In simple terms, when the ratio of community park allocation has reached an optimal urban planning status, unless the NIMBY effect caused by activities is effectively controlled, there cannot be further improvement in environmental quality.

In conclusion, this study highlights the importance of trade-offs in public space design and calls for urban design to pay more attention to the real needs of residents while balancing functionality and comfort. Future research could further explore community public space planning with high degrees of background diversity, examining the correlation between residents' quality of life and community public resources.

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Contact email: zizi0815@ms51.hinet.net

The 2020 Election in Myanmar: The NLD Supporters and Facebook

Khin Nway Nway Hlaing, Chiang Mai University, Thailand

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

This article explored how the National League for Democracy (NLD) supporters used Facebook to conduct their campaigns in the 2020 election. I argue that the NLD supporters used Facebook to excite people's sentiment to support the NLD and to resent the Union the Solidarity and Development Party (USDP), backed by the Myanmar military Tatmadaw. I employ securitization to examine the issue. The theory of securitization shapes the NLD supporters as a securitizing actor and people in Myanmar as audience. Through Facebook, the NLD supporters securitized political development in Myanmar, which was handled by the military junta for over 30 years, triggering the USDP supporters' pushback. I examined the data on Facebook throughout the election campaign period from September to November 2020. I used Facebook's own CrowdTangle system to collect the digital data and conducted online interviews to collect first-hand data. This research found that the NLD supporters' digital modus operandi created an echo chamber, making constructive conversations between different political supporters strenuous and political polarization intensified.

Keywords: NLD, Facebook, Securitization

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Introduction

Before the political transition in 2011, Myanmar's government tightly controlled technology and telecommunications, making devices like televisions, fax machines, and computers scarce (Krebs, 2001). SIM cards cost up to \$300, resulting in one of the world's lowest mobile penetration rates, just above North Korea. However, post-2011, the government eased these restrictions to re-engage with the global market (Schulman, 2019). This shift allowed more people to access the internet, and international telecom companies like Telenor and Ooredoo entered the market, rapidly advancing Myanmar's ICT sector (Tønnesson et al., 2021). Consequently, by 2018, Myanmar had one of the fastest-growing mobile phone markets globally.

Despite these advancements, repression continues, such as the 2019 internet shutdowns in Rakhine and Chin states, the longest in the world, which hampered communication and information dissemination during political violence (Human Rights Watch). The liberalization of the telecommunications sector also created a market where social media, particularly Facebook, became dominant. For many in Myanmar, Facebook essentially is the internet (Schulman, 2019). By 2017, 35% of the population primarily relied on Facebook for news (IRI, 2017).

Myanmar's digital transformation has had mixed outcomes. On the positive side, the public gained more access to information and communication tools. However, digital literacy remains low, and Facebook's dominance poses challenges, including spreading misinformation and hate speech (Smith & Smith, 2022). Despite these issues, Facebook has become integral to Myanmar's information ecosystem and political landscape, as seen when major news, like President Htin Kyaw's resignation, was first announced on Facebook (Rio, 2021).

The digitization of political bureaucracy has notably impacted Myanmar's democracy and elections. McCarthy (2018) explores how new technologies have altered social networks and communication practices, fostering activism and reshaping civil-military relations. The 2015 general election, Myanmar's first multiparty democratic election, saw extensive use of Facebook for voter education and campaigning, driven by the availability of cheap SIM cards and smartphones (Than, 2016). By 2020, the COVID-19 pandemic had transformed election campaigns, forcing candidates and their supporters to rely heavily on online platforms like Facebook to reach voters. This period highlighted Facebook's crucial role in political communication, between candidates and supporters using the platform to share information, engage in discussions, and promote political views (García-Perdomo et al., 2017; Trilling et al., 2017).

The 2020 election, contested primarily between the NLD and the USDP, intensified political polarization in Myanmar. The NLD supporter's digital campaigns pushed polarization, exacerbating existing tensions in a country already struggling with military rule, civil conflict, and poor governance (Maizland, 2022; Rogers, 2019). This thesis explores how NLD supporters utilized Facebook during the 2020 election, analyzing its impact on political polarization and the broader political landscape in Myanmar.

Research Questions

1. How did the NLD party's supporters conduct political campaigns on Facebook in the 2020 election?

2. How did the NLD supporters influence political polarization in the 2020 election?

Research Objective

1. To understand how NLD party supporters conducted political campaigns on Facebook during the 2020 election.
2. To understand the role of NLD supporters in political polarization in Myanmar.

Literature Review

The internet, especially social media, has revolutionized how we access information and communicate. However, it can also be weaponized, as seen in studies by Conway (2017) and Rio (2021), who explored how extremist groups and political elites used social media for propaganda and inciting violence. Bossetta (2018) emphasized that political communication on social media is shaped by digital architectures that influence user behavior. Politicians increasingly use social media to reach voters during elections, often resulting in higher advertising costs and a fragmented media landscape. However, these studies often need to pay more attention to the role of the audience in digital propaganda.

Facebook is a particularly influential platform in Myanmar, and it is used extensively for communication and information during elections. Beam et al. (2018) found that Facebook news consumption can lead to depolarization by exposing users to diverse perspectives, though its role in the US elections raised concerns about filter bubbles and echo chambers.

Than (2016) highlighted Facebook's role in Myanmar's 2015 election, but more research is needed on its impact on political polarization, particularly during the 2020 election. This study seeks to fill that gap by examining how NLD supporters used Facebook to securitize the election and democracy, potentially fueling political polarization.

Theories

In this paper, I employ Securitization Theory and Political Polarization to delve deeper into the dynamics of the 2020 election and political polarization in Myanmar. Securitization Theory, originating from the Copenhagen School, explains how issues are framed as existential threats by securitizing actors to prompt extraordinary measures, involving an interaction between actors and their audience (Buzan et al., 1998; Balzacq, 2011: 321). Successful securitization necessitates convincing the audience of the threat's severity and the urgency of action (Buzan et al., 1998; Balzacq, 2011: 321). Three key concepts in Securitization Theory are particularly relevant: counter-securitization, which refers to resistance against securitizing moves; (Buzan et al., 1998: 206; Vuori, 2008: 93, 2011: 190–193, 200–204; Charrett, 2009: 25–37; Watson, 2009: 90–96; Hansen, 2011a: 61, 2011b: 364) de-securitization, which involves shifting issues out of emergency mode into normal political processes; (Hansen, 2012: 531). and the role of the audience, whose acceptance or rejection of securitization efforts is crucial. (Côté, 2016) In the context of Myanmar's 2020 election, NLD supporters acted as both securitizing actors and audience members, using Facebook to highlight perceived threats to democracy and rally support, illustrating the interplay between securitization and political polarization in a contested electoral environment.

Political Polarization occurs when ideological distances between parties and voters increase, leading to a lack of trust and increased political gridlock (Sartori, 1976). The internet and social

media significantly contribute to this phenomenon by creating echo chambers and filter bubbles. Key factors driving this include selective exposure, algorithmic filtering, and echo chambers (Andrejevic, 2013). Selective exposure refers to the internet providing vast, tailored information, leading to fragmented media consumption. As seen on social media platforms like Facebook, algorithmic filtering personalizes content, reinforcing existing opinions and creating echo chambers (Pariser, 2011). These echo chambers are environments where individuals only encounter information that reinforces their views, hindering exposure to opposing perspectives. During the 2020 election in Myanmar, NLD supporters used Facebook to spread their narratives, and this, combined with Facebook's algorithms, likely contributed to political polarization by isolating users from diverse viewpoints.

My Conceptual Framework is NLD supporters acted as both securitizing actors and the audience. They used Facebook to highlight threats to democracy, aiming to mobilize support. This interaction occurred in a virtual space due to the COVID-19 pandemic and widespread Facebook use. However, this process likely increased political polarization, as Facebook's algorithms and filter bubbles reinforced users' existing views and limited exposure to opposing perspectives.

Research Method

This study explores how NLD supporters' use of Facebook for campaigning contributed to political polarization in Myanmar during the 2020 election.

This research employs qualitative methods to collect data, focusing on digital ethnography and in-depth interviews. Digital ethnography, which merges digital media with storytelling to represent real-life cultures, will be used to understand how meanings are assigned to technology and the cultural experiences enabled by digital media. This method is particularly relevant for the 2020 Myanmar general election, where Facebook became the primary platform for political discussions during the pandemic.

The research will examine how the Facebook system operates and the perspectives of election observer groups. At the micro level, it will analyze how NLD supporters used Facebook to securitize the election, including individual posts and opinions from NLD supporters, election observers, and digital rights activists. The analytical units include the digital revolution in Myanmar, the use of Facebook during the pandemic, the election campaigns on Facebook by NLD supporters, and the extent and nature of political polarization during the 2020 election.

History of Use of Traditional Media and Social Media in Myanmar

Myanmar, with a population of approximately 55 million, has a tumultuous political history characterized by repressive military rule since gaining independence from Britain in 1948. (Gaens, 2013, p. 6) (Ochwat, 2020, p. 247) Led by figures like General Ne Win, the country endured decades of isolationism, civil conflict, and economic mismanagement. The military junta, which seized power in 1962, imposed strict controls on society, curtailing freedom of expression and suppressing dissent through violent crackdowns on protests (Ochwat, 2020, p. 247).

Media in Myanmar mirrored this authoritarianism, with stringent censorship and state control over all forms of communication. Print media, broadcast channels, and later internet platforms were tightly regulated, serving primarily as vehicles for government propaganda. Independent

journalism faced severe restrictions, forcing many outlets underground or into exile. (Ochwat, 2020, p. 260) The media landscape began to shift after 2011 when political reforms under President Thein Sein's quasi-civilian government relaxed censorship laws and allowed for more independent reporting (Brooten et al., 2019, p. 37).

Despite these reforms, challenges such as low media literacy and ongoing harassment of journalists persisted. The emergence of new media technologies, including satellite television and the internet, provided alternative channels for information dissemination but remained subject to government oversight. The period marked by the 2007 Saffron Revolution and subsequent political reforms gradually opened up the media environment, allowing for the establishment of privately owned newspapers, magazines, and online platforms (Seekins, 2009).

Digitalization and Limited Internet Access in Myanmar

Digitalization and internet access have transformed societies worldwide, yet Myanmar's journey has been marked by challenges and transformation. In 1997, Myanmar introduced limited dial-up internet, controlled by the government and requiring permission for use. Despite these early steps, internet penetration remained minimal due to high costs and regulatory restrictions (Chowdhury, 2008; Troester, 2001).

The landscape changed dramatically after 2010, transitioning from one of the world's strictest censorship regimes to significant policy shifts under the Thein Sein government. This period saw liberalization in internet access, with censorship gradually easing and infrastructure expanding. Foreign investments in the telecommunications sector further boosted connectivity, leading to a 100-fold increase in internet users by 2016, reaching 13 million people (Shadrach & A4AI, 2018; Schulman, 2019).

Despite these advancements, challenges persist. Internet shutdowns, particularly in conflict zones like Rakhine and Chin states, highlight ongoing restrictions. Rural areas continue to face limited infrastructure, impacting traditional media access and amplifying disparities (International Media Support, 2023).

Popular Social Media and the Role of Facebook in Myanmar

Social media, notably Facebook, gained immense popularity post-2011, becoming a primary platform for communication and information sharing. With the rise of affordable smartphones and improved internet access, Facebook emerged as the de facto internet for many, enabling unprecedented connectivity and community engagement (Schulman, 2019).

Facebook's localization efforts in Myanmar, including support for the Myanmar language, enhanced its accessibility and adoption across demographics. However, its dominance also raised concerns about misinformation and hate speech during sensitive political periods, notably the Rohingya crisis, underscoring the platform's dual role in Myanmar's socio-political dynamics (Potkin & McPherson, 2020).

Myanmar's digitalization journey reflects the opportunities and challenges of increased internet access and social media penetration. While facilitating connectivity and democratizing access to information, platforms like Facebook pose risks, necessitating responsible use and robust regulatory frameworks. Moving forward, Myanmar must navigate these complexities to

harness the full potential of digital technologies for inclusive development and informed civic engagement.

The NLD's Supporters and Political Campaigns on Facebook in the 2020 Election

The section elucidates the multifaceted strategies and tactics NLD's supporters used on Facebook to advance their political agenda. Furthermore, it explores the evolution of these campaign activities in the context of securitization. It then provides a comprehensive analysis of the dynamics at play, shedding light on the interconnected relationship between digital campaigning and the securitization of political issues during the 2020 election.

How Did the NLD's Supporters Use Facebook for the Election Campaign?

During the 2020 election in Myanmar, political parties used Facebook as a primary campaigning platform due to its widespread popularity and accessibility. This digital approach was crucial during COVID-19, as it allowed parties to reach both urban and rural populations when physical rallies were limited. NLD supporters also were particularly active, sharing videos, infographics, and photographs to promote their party's message. They organized online discussions and live streams, mobilizing support and shaping the digital political landscape of the 2020 election.

The Role of NLD Supporters and How They Engaged With People

In the electoral landscape, the profound impact of social media platforms, especially Facebook, on shaping public opinion cannot be understated. NLD supporters, including influential figures like singers, actors, writers, religious figures, and motivational speakers, actively engaged on social media to advocate for their party.



Figure 1: Zarni Myonyunt's Facebook Page. Source: Zarni Myo Nyunt's Facebook



Figure 2: NLD campaign Songs by various artists - Song Name is “Fly NLD’s Success Flag.”
Source: R Zar Ni’s Facebook Page

Figures 1 and 2 show the Facebook profile of well-known singer Zarni Myonyunt, with 762K followers. As a verified public figure, he used his account to disseminate information about the NLD and encourage people to vote. Zarni Myonyunt also participated in a music video for the NLD campaign song "Fly NLD’s Success Flag," urging voters to support the party. His posts received significant engagement, reflecting his influence in mobilizing support.

Figure 3 features the NLD campaign song "Fly NLD’s Success Flag" shared by influencer Billy La Min Aye, a popular vocalist and runner-up in Myanmar Idol. His repost of the campaign song received around 100,000 reactions, 2,300 comments, and 1.2 million views, attracting considerable attention and support for the NLD.



Figure 3: A new famous vocalist re-posted the NLD campaign song, which attracted a large audience and pushed the number of views to reach 1.2 million, receiving around 100 K reactions. Source: Billy La Min Aye’s Facebook



Figure 4: A voting music promotion post from famous vocalist Phyto Pyae Sone's Facebook account. Source: Facebook

Figure 4 shows a voting promotion post by famous vocalist Phyto Pyae Sone, advocating for civic responsibility and proper election conduct during COVID-19. His post included the "Let'sVote" song, featuring contributions from 14 young singers and emphasizing the importance of overcoming challenges to participate in the democratic process.

The collective effort of NLD supporters, including influential figures, advocated for safe voting during the pandemic, showing their commitment to democratic participation and public health. Their campaigns on Facebook promoted safe voting practices, countering fear and uncertainty about the election amid COVID-19 constraints.

NLD Lobby Pages and How They Engage With People

The lobby pages "DHA NA - ဓန" and "D-Lann News" were key NLD platforms, advocating and endorsing the party's political pursuits. They shaped public sentiment and support by strategically disseminating statements that reinforced the NLD's goals, significantly contributing to Myanmar's digital political landscape.

Both Dha Na and D-Lann News Facebook pages shared numerous NLD campaign posts aimed at encouraging people to vote and providing voter education, especially during the COVID-19 pandemic. For example, these pages posted guidelines on how to vote safely with masks and facial protection.

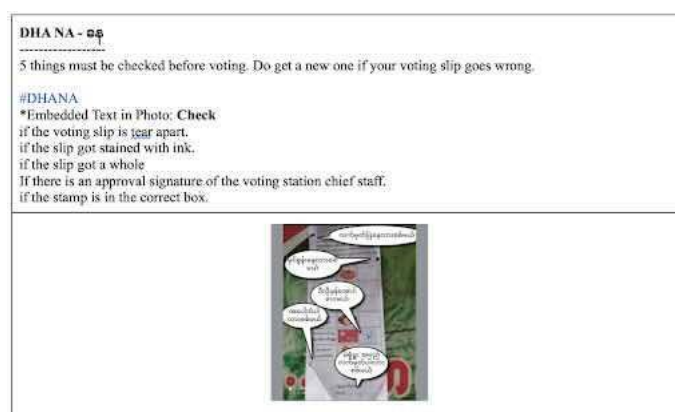


Figure 5: A voter education post showing how to vote correctly. Source: Election Social Media Dashboard

Figure 5 is a critical voter education effort from a pro-NLD page. The post includes a detailed guide for citizens on ensuring their votes are valid, emphasizing checking for torn slips, ink stains, holes, approval signatures, and correct stamp placement. These efforts were pivotal in promoting a fair and informed election process.



Figure 6: Massive crowds of NLD supporters in some are even in front of the USDP campaign sign board. Source: Election Social Media Dashboard

Figure 6 depicts large crowds of NLD supporters, highlighting their unity and determination. Notably, one image shows NLD supporters gathered in front of a USDP campaign signboard, symbolizing their strong presence and solidarity. This post was celebrated on the Dha Na page, emphasizing the collective voice and support for the NLD.



Figure 7: A recorded livestream of an online conversation between Daw Aung San Suu Kyi and first-time voters. Source: Election Social Media Dashboard

Figure 7: Features an online talk session between Aung San Suu Kyi and first-time voters, shared on the D-Lann News Facebook page. The comments under the post reflect well-wishes for Aung San Suu Kyi, demonstrating her followers' personal connection and support.

How NLD Supporters Use Facebook Group Function to Engage With People

NLD supporters adopted a distinctive approach on Facebook to bolster the NLD's prospects in the 2020 Myanmar election by establishing numerous groups and pages dedicated to promoting

the party. These groups and pages, typically named “Victory for NLD (Township or Region Name)” or simply “Victory for NLD,” focus primarily on NLD updates and information about NLD President Daw Aung San Suu Kyi.

In figure 8, ten groups are mentioned, with varying membership counts and focuses, all dedicated to supporting the NLD. These groups, whether established by NLD supporters or potentially by the party itself, played a significant role in the online campaigning efforts.

Only NLD's victory for the 2020 election Public. 11 K Members For the sake of the group's reputation, we won't allow the contents that create a split between Myanmar citizens and tensions between ethnic people
The victory for NLD Public. 12 K Members
Magway Division, 2020 the victory for NLD Public. 2.4 K Members
The Victory for NLD Public. 20 Members
The Victory for NLD (Palun Sar village) Public. 1.9K Members . 5 Post a year Mothers lovers
The Victory for NLD Public. 99 Members နိုင်ငံချုပ်မြေပို့မြေ
NLD will win again in 2020, NLD Public. 2 K Members . 4 posts a year
The Victory for NLD Public. 14 Members
The Victory for NLD (Palun Sar village) Public. 50 Members
The Victory for NLD Public. 530 Members From 1988 to 2016, the dictatorship oppressed civilians and destroyed the country

Figure 8: NLD campaign groups , Source: Facebook

Figure 9 illustrates various Facebook pages centered around the theme of “Victory for NLD.” These pages, with broad and specific regional references, exhibit unwavering support for the NLD, indicating a cohesive and like-minded community rallying behind the party’s success.

2020 victory for NLD Personal blog . 1.9K followers
The victory for NLD Product Service . 65 followers
NLD victory songs Personal blog . 42K followers To end the dictatorship people?
The victory for NLD, Mother Su lovers Personal blog . 1K follower
The victory for NLD, Kante Personal blog . 1 followers
2020 victory for NLD Just for fun . 730 followers

Figure 9: NLD campaign pages, Source: Facebook

How NLD Supporters From Abroad Utilized Facebook for the 2020 Election

Support for Myanmar's National League for Democracy (NLD) extended beyond the country's borders, with overseas supporters actively engaging in the 2020 election campaign through Facebook. Due to COVID-19 restrictions, many abroad used social media to advocate and mobilize support for the NLD.

Figure 10 shows a powerful display of NLD support in Times Square, New York City, where enthusiasts waved NLD flags with a "Vote NLD" message. This image, shared by an NLD supporter page, symbolizes solidarity and optimism for a "landslide victory," highlighting the global momentum and contributions of supporters worldwide.

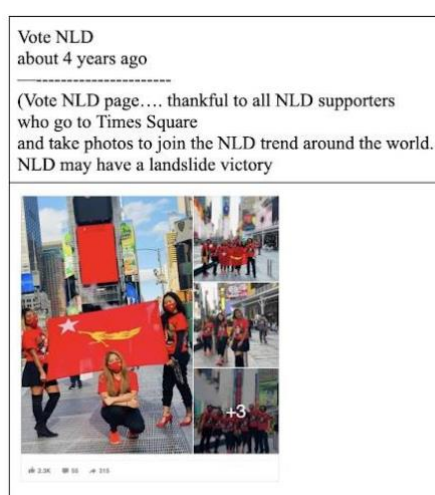


Figure 10: NLD supporter at Time Squares, Source: Facebook

Figures 11 and 12 feature Poe Phyu Thant, a prominent NLD supporter based in London. As a social media influencer with a substantial Facebook following, she actively advocated for the

NLD during Myanmar's 2020 election, raising awareness and support amidst the COVID-19 pandemic. In Figure 11, she shares her voting experience at the Myanmar embassy in London, highlighting the safety measures such as social distancing and PPE for staff. Her transparency aimed to reassure voters and encourage participation in the election.



Figure 11: NLD supporter Poe Phyu Thant's Facebook. Source: Poe Phyu Thant's Facebook Account



Figure 12: Poe Phyu Thant's Pre Voting at London Embassy. Source: Poe Phyu Thant's Facebook Account

NLD supporters' engagement on Facebook during Myanmar's 2020 election significantly shaped public discourse and mobilized support for the party. Influential figures like Zarni Myonyunt and Billy La Min Aye promoted NLD campaign songs, while lobby pages like Dha Na and D-Lann News disseminated party messages and voter education. Facebook groups like "Victory for NLD" showcased a cohesive online community rallying behind the party. Supporters abroad also amplified NLD's message globally, overcoming COVID-19 challenges.

In conclusion, the diverse strategies of NLD supporters on Facebook—from celebrity endorsements to grassroots mobilization and global advocacy—bolstered the NLD's electoral

prospects. This highlights the transformative role of social media in modern political campaigns and its power in shaping democratic outcomes.

Securitization Argumentation on Facebook and Political Polarization

Since Myanmar's independence in 1948, political polarization has deep historical roots stemming from ethnic, religious, and political divides. This polarization has exacerbated socio-political rifts, contributing to democratic erosion and societal discord (Carothers & O'donohue, 2020: p.3). The 2020 election, coinciding with the COVID-19 pandemic, intensified these divisions (Barberá, 2020). With traditional campaign methods constrained by the pandemic, social media platforms became pivotal for political messaging. This shift enabled political leaders and influencers to disseminate extremist ideologies and propaganda, a concerning trend amplified by the pandemic (Whitten-Woodring et al., 2020). Ongoing research explores how social media influences political behavior in Myanmar, particularly in perpetuating polarization and shaping electoral outcomes (Barberá & 2020).

Before the 2020 election, similar patterns emerged in the 2019 U.S. presidential election, highlighting social media's role in exacerbating political polarization (Fujiwara et al., 2021; Gilat Levy and Ronny Razin, 2020). These studies underscored how social media biases and campaigns can intensify polarization among voters.

Facebook as a Tool for Securitization

During the 2020 election, Facebook became a battleground where supporters of political parties used securitization tactics to evoke fear and frame their party as protectors against threats. For instance, NLD supporters used Facebook to frame democratic development issues, drawing criticism from USDP supporters and leading to polarized debates and misinformation. One of the NLD's primary challenges in the 2020 election was overcoming the constitutional provision that reserves 25% of legislative seats for military personnel (Idea Myanmar, 2020). This arrangement granted the USDP significant influence in Myanmar's legislative bodies.

<p>Phone Naing Oo ► Only NLD supporters and Mother Su's supporter</p> <p>#ElectionLesson</p> <p>Let's say mathematically, If the NLD party wins in each constituency, 100% victory, 75 % of the seats 80% victory, 60 % of the seats 75% victory, 56.25 % of the seats 70 victory, 52.5% If other party win 35%, 26% of the seats(in the parliament)</p> <p>By the time the NLD party tries to win 80%, other parties only try to win 35%, and they get 26 % of the seats. If they team up with the other 25 %(military representatives), the percentage will become over 50 %, robbing the ruling power of the people.</p> <p>Thus, in the 2020 election. The actual power owner or the people must be united. Vote with the revolutionary soul.</p> <p>U Bhone(Chemistry) 20/9/2020</p>	<p>ElectionLesson</p> <p>Let's say mathematically, If the NLD party wins in each constituency, 100% victory, 75 % of the seats 80% victory, 60 % of the seats 75% victory, 56.25 % of the seats 70 victory, 52.5% If other party win 35%, 26% of the seats(in the parliament)</p> <p>By the time the NLD party tries to win 80%, other parties only try to win 35%, and they get 26 % of the seats. If they team up with the other 25 %(military representatives), the percentage will become over 50 %, robbing the ruling power of the people.</p> <p>Thus, in the 2020 election. The actual power owner or the people must be united.</p>
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Figure 13: Phone Naing Oo post's translation.
 The Source: Election Social Media Dashboard
 Archive Link- <https://archive.fo/3u4fc>

NLD supporter Phone Naing Oo highlighted a critical viewpoint on Facebook (Figure 13), emphasizing the electoral challenges faced by the NLD due to Myanmar's constitution. He noted that for the NLD to govern effectively, it would need to secure an overwhelming majority of seats, given the military's constitutional advantage of 25 percent. Phone Naing Oo illustrated that even with substantial electoral victories, the NLD's ability to govern could be undermined if other parties align with the military-backed USDP, potentially diluting the people's mandate. His post in the NLD supporter group garnered significant engagement, reflecting widespread concern and mobilization around electoral fairness and constitutional reform.

In Myanmar's politics, the NLD stood out as the primary contender against the USDP. This unique position necessitated a well-thought-out strategy, especially given the presence of various ethnic parties competing in the election. Myanmar's electoral landscape is marked by diverse political parties, each representing distinct interests. To secure a full parliamentary majority, the NLD had to balance the interests of diverse stakeholders while advancing its democratic aspirations.

Moreover, Myanmar has faced the grim reality of becoming one of the poorest countries in Asia due to over six decades of military rule. However, there has been hope and progress since opening up to the world in 2010. Winning the 2020 election meant protecting these hard-fought freedoms and development from regressing under military administration.

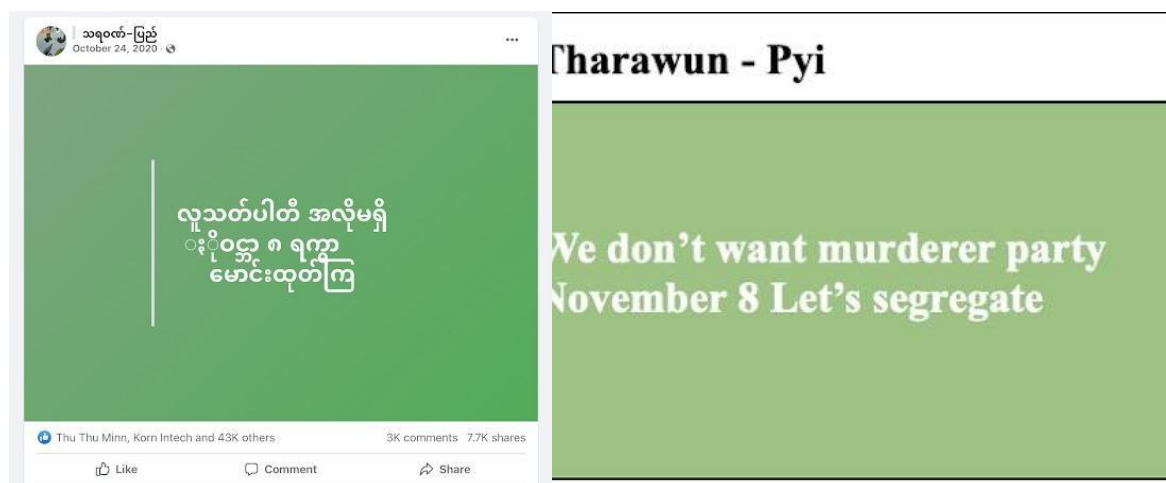


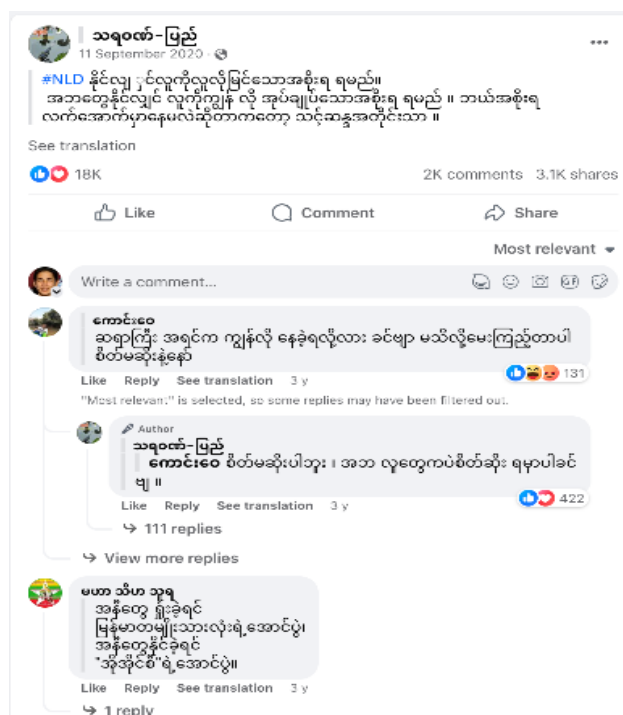
Figure 14: The post reads, “Don’t want a murderer party. Drive out/kick out/force out.”

Source: Election Social Media Dashboard

Archive Link: <https://archive.ph/IGrjf>

Amidst the election fervor, influential individuals like Tharawon Pyi, a prominent influencer, played pivotal roles. As a tour guide and author, Tharawon Pyi strongly supported the NLD and critiqued the USDP. His viral posts securitized the USDP as a party made of murderers, significantly influencing public discourse and adding depth to the election narrative.

Figure 15 shows Tharawun-Pyi's strategic use of securitization rhetoric during the election. By highlighting the USDP's actions and history, he aimed to instill fear among netizens, framing the USDP as a significant threat to democracy. His posts, which criticized the previous government and advocated for the NLD, received substantial engagement, with over 1,000 likes, shares, and comments. This effective framing of issues as national security concerns significantly influenced public opinion and the broader electoral discourse.



Tharawun - Pyi

If #NLD wins, we will have a government that will respect the civilians.

If Aba(code word for Military Generals and affiliated people) win, we will have a government that will treat the civilians as slaves. It's up to your desire to choose under which regime you would like to live.

See translation

Kaung Wai

You survived as a slave before? Don't mind me, I am just wondering

Author

Tharawun - Pyi

Kaung Wai I don't mind at all, Aba's folks should be upset about it

Mahar Thiha Thura

If the red lose, it's a victory for the entire Myanmar nationality.

If the red wins, it's the victory of ISIS

Figure 15: Tharawun-Pyi's Post Related to the Election.

Source: Election Social Media Dashboard

USDP's Securitization Tactics

USDP supporters also employed securitization strategies, focusing on religious and ethnic issues to frame the NLD as a threat. Posts often depicted the NLD as biased towards Muslims, which resonated strongly in a predominantly Buddhist country like Myanmar.

Figure 16, posted by a USDP supporter "Mai" during Myanmar's election campaign, exemplifies the securitization tactics employed by USDP circles. The post framed their stance through a religious lens, suggesting a refusal to patronize shops selling NLD-affiliated merchandise due to alleged biases favoring Muslims under the NLD government. While the authenticity of accompanying images could not be verified, the narrative underscored concerns over religious and societal hierarchies, serving as a deliberate securitization strategy to discredit the opposition.

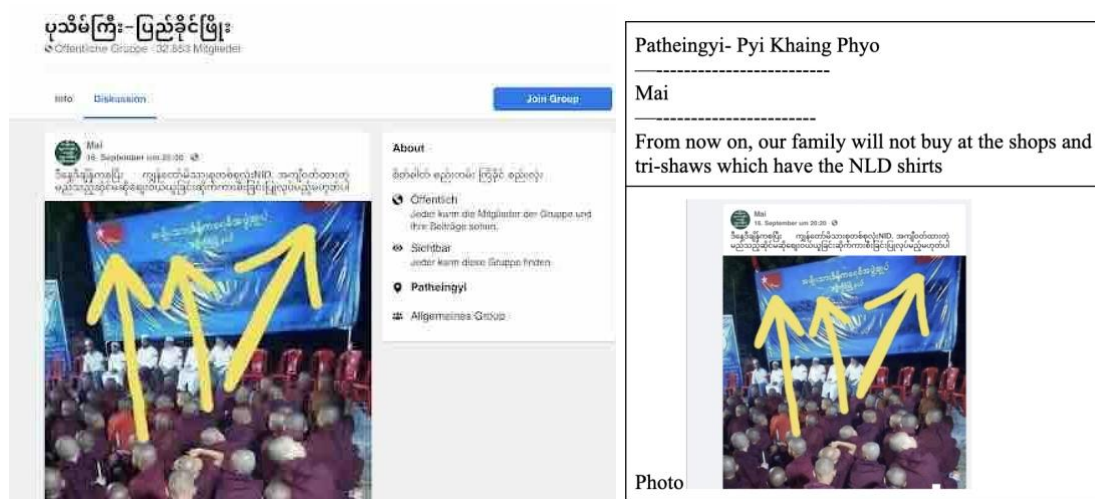


Figure 16: A USDP Supporter Post.

Sources: Election Social Media Dashboard

Archive Link -<https://archive.vn/BVUvP>, <https://archive.vn/waGfQ>

During Myanmar's election campaign, contentious discussions emerged around the issuance of identity cards, notably the NVC (National Verification Card) introduced by the NLD government. USDP supporters feared that granting NVC cards to Rohingya individuals, whom they refer to as Bengalis, could lead to demographic shifts and destabilization.

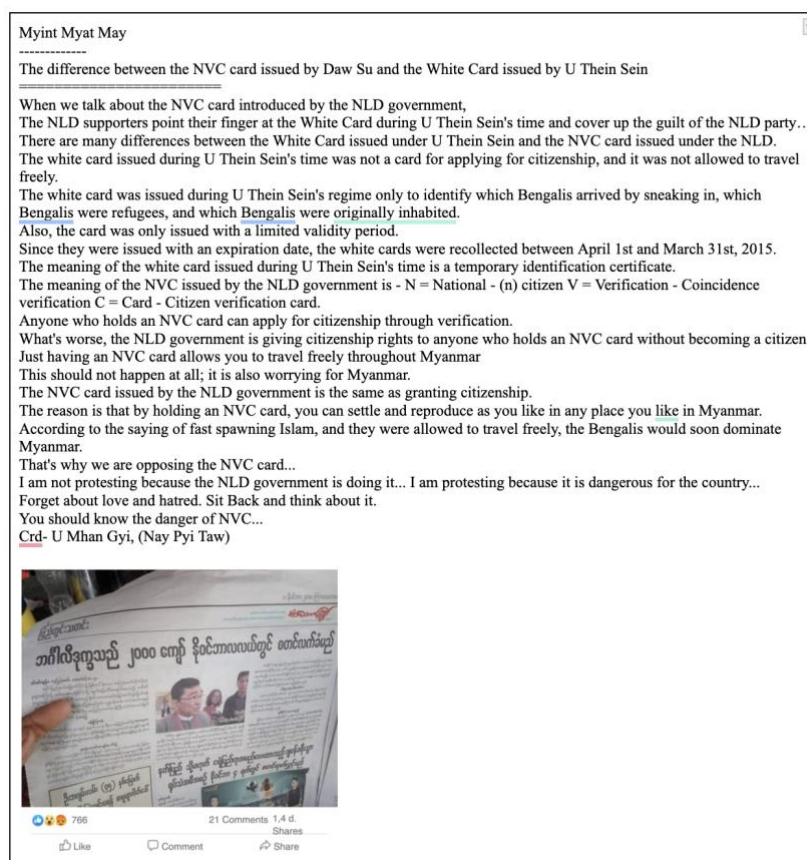


Figure 17: Myint Myat May Account Post the difference between NVC and White card

Sources: Election Social Media Dashboard

Archive Link -<https://archive.vn/HDXnt>

Figure 17, posted by USDP supporter Myint Myat May during Myanmar's election campaign, criticized the NVC (National Verification Card) policy, framing it as a threat to national security and demographic integrity. This rhetoric exacerbated ethnic and political divisions, intensifying polarization and hindering inclusive governance. The USDP's campaign tactics politicized religion and portrayed NLD policies as security threats, deepening societal divisions and fostering an "us versus them" mentality. These biased narratives and misinformation created echo chambers eroded trust in institutions, and hindered constructive dialogue.

Facebook's Role in Polarization

Facebook's algorithmic feeds created echo chambers where users only saw content that aligned with their beliefs, deepening polarization. Pro-NLD and pro-USDP groups became isolated, fostering an "us vs. them" mentality.

TOP FACEBOOK INFLUENCERS				Top Facebook Influencers			
Type	Name	Records	Interaction	Type	Name	Records	Interactions
* Group *	Aung San Suu Kyi (Myanmar State Counsellor)	465	389	* Group *	Aung San Suu Kyi (Myanmar State Counsellor)	465	389,22
* Group *	USDP Daily News	78	197	* Group *	USDP Daily News	78	197,25
* Group *	NLD လူထု အသံ (People's Voice)	177	113	* Group *	NLD supporters	177	113,01
* Group *	အမေ့အသိ (Memory)	119	112	* Group *	Amye Suu's lovers (Only)	119	112,83
* Group *	We Love NLD	147	109	* Group *	We Love NLD	147	109,40
* Group *	အမေ့အသိ (Memory) (We Stand with Daw Aung San Suu Kyi)	70	88	* Group *	အမေ့အသိ (Memory) (We Stand with Daw Aung San Suu Kyi)	70	88,50
* Group *	အမေ့အသိ (Memory) (We Stand with Daw Aung San Suu Kyi)	118	63	* Group *	New Generations of State Counsellor Daw Aung San Suu Kyi	118	83,38
* Group *	အမေ့အသိ (Memory)	65	60	* Group *	Ayeayawaddy Thinhaw	65	60,88
* Group *	Aung San Suu Kyi (State Counsellor)	86	44	* Group *	Aung San Suu Kyi (State Counsellor)	86	44,85
* Group *	အမေ့အသိ (Memory)	123	43	* Group *	Amye's sons and daughters (Only)	123	43,19
* Group *	We Love USDP	108	42	* Group *	We Love USDP	108	42,67
* Group *	PPP (People's Pioneer Party) (Official)	60	34	* Group *	PPP (People's Pioneer Party) (Official)	60	34,69
* Group *	အမေ့အသိ (Memory)	66	28	* Group *	Amye's sons and daughters meet up	66	28,46
* Group *	အမေ့အသိ (Memory)	42	28	* Group *	Amye Suu's sons and daughters	42	28,27
* Group *	NLD လူထု အသံ (People's Voice)	42	27	* Group *	NLD youth election campaign committee	42	27,96
* Group *	NLD လူထု အသံ (People's Voice)	38	26	* Group *	NLD supporting Amye Suu's lovers (only)	38	26,70
* Group *	အမေ့အသိ (Memory)	56	25	* Group *	Amye Suu's sons and daughters (only)	56	26,96
* Group *	အမေ့အသိ (Memory)	9	23	* Group *	Lottery Winner Check	9	23,61
* Group *	Bogalay usdp	30	21	* Group *	Bogalay usdp	30	21,36
* Group *	အမေ့အသိ (Memory)	36	20	* Group *	Amye Suu supporters	36	20,58

Figure 18: The most influential groups during the election campaign period

Source: [Election Dashboard](http://mmtan.org/ElectionDashboard)

Figure 18 shows the top 20 Facebook groups by interaction during Myanmar's 2020 election. A pro-NLD group led with 465 discussions and nearly 400,000 interactions, compared to a pro-USDP group's 78 discussions and 200,000 interactions. This disparity highlights NLD supporters' strong online presence, fostering echo chambers and polarization. Facebook's algorithm-driven content distribution reinforced partisan viewpoints, limiting diverse discussions.

The spread of securitization narratives and misinformation, such as the depiction of Buddhist monks and Muslims, amplified fear and mistrust, deepening polarization. Misinformation undermined trust in political processes and fostered negative perceptions. Facebook's role in Myanmar's political discourse entrenched polarization by amplifying partisan voices and spreading misinformation. Addressing these challenges requires promoting digital literacy and enhancing fact-checking to foster inclusive and informed public dialogue.

In conclusion, Myanmar's 2020 election showed Facebook's role in deepening political polarization through echo chambers, securitization tactics, and misinformation. The platform amplified partisan voices, restricted diverse viewpoints, and deepened societal divisions. Enhancing digital literacy, improving fact-checking mechanisms, and fostering inclusive online discourse are crucial to promoting a more unified political landscape in Myanmar. Understanding these dynamics is essential for navigating digital platforms' evolving role in shaping electoral outcomes and societal stability.

Conclusion

This thesis explores the role of Facebook in exacerbating political polarization during Myanmar's 2020 general election. The study combines theoretical frameworks with empirical analysis to understand how social media shapes public discourse and influences political outcomes in Myanmar. The research starts by contextualizing Myanmar's political landscape, from military rule to fragile democracy, highlighting social media's emergence in political mobilization. Grounded in securitization theory and media studies, it investigates Facebook's contribution to societal polarization through a rigorous methodology involving qualitative content analysis and critical discourse analysis of Facebook posts from influential groups during the election campaign. Key findings include: The NLD used Facebook to promote achievements and policy agendas and mobilize grassroots support, leveraging the platform's broad reach for electoral success. Both NLD and USDP supporters used Facebook to frame issues like identity cards and religious discrimination as national security threats, deepening political polarization. Pro-NLD discussions dominated Facebook groups, creating filter bubbles that reinforced biases and hindered inclusive governance. Facebook's algorithm prioritized personalized content, fostering echo chambers and intensifying societal divisions. These findings highlight the urgent need for digital literacy, enhanced fact-checking mechanisms, and fostering inclusive dialogue to mitigate polarization.

As conceptualized by the Copenhagen School, securitization theory helps explain how political actors in Myanmar framed issues as national security threats to mobilize support and delegitimize opponents. This strategy, amplified by Facebook, deepened public distrust and polarization. The study underscores the necessity for critical engagement and fact-checking to counter misinformation and promote informed discourse.

The research on Myanmar's 2020 election and political polarization faced several critical limitations. Limited and unreliable Facebook data, the extensive effort required for data processing, and translation challenges constrained the analysis. Restrictions on accessing older data hindered longitudinal studies, and the volatile political environment affected data accessibility. Additionally, the lack of studies on social media's role in Myanmar limited contextual understanding.

Future research should focus on transparent data-sharing, ethical guidelines, exploring historical and institutional factors, and ensuring participant safety. Comparative and longitudinal studies can offer insights into digital politics over time. Investigating platforms like TikTok, Telegram, and WhatsApp can reveal their political roles. Multidisciplinary collaborations are essential for a comprehensive understanding of digital politics in Myanmar and Southeast Asia, promoting informed civic engagement and inclusive discourse.

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Eastern Ideology in Hollywood Movies: The Cases of Inception (2010), Interstellar (2014) and Oppenheimer (2023) by Director Christopher Nolan

Thu Vân Phan, Ho Chi Minh City University of Education, Viet Nam

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The application of Eastern thoughts (Taoism, Hinduism, Buddhism, etc.) has made impressive changes from the late 20th century to the early 21st century, through outstanding films such as *The Matrix* (1999), *Avatar* (2009), etc. Especially in recent years, Eastern ideas have been applied smoothly and clearly through films which won major awards such as *Everything everywhere all at once* (2022), *Avatar: The way of water* (2022), and most recently *Oppenheimer* (2023). This article studies Eastern ideology in three films *Inception* (2010), *Interstellar* (2014) and *Oppenheimer* (2023) by British director Christopher Nolan in the three aspects of story ideas, character inner development and the use of sound and image symbols in the films. The article compares these three works with each other to illustrate the progress in using Eastern ideology in the artistic creation of a Western director. In addition, it will attempt to demonstrate the work Nolan has done in establishing a milestone in the convergence of Eastern and Western ideology in world cinema.

Keywords: Eastern Thoughts, Hollywood Movie, Christopher Nolan

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Introduction

The issue of ideological exchange is a complex issue in world cultural history, and the clear separation between Eastern and Western thought can sometimes cause controversy. However, it cannot be denied that in some historical periods, the ideas of some countries have gained prominence and are consistently being actively or passively adopted in other countries.

From the 20th century onwards, with the development economic rise of numerous Eastern countries, as well as more positive and equal cultural exchanges between the East and the West, Eastern thought has also been continuously recognized, and to some extent influenced Western art, including Hollywood cinema.

This article illustrates how there is a meeting of East and West ideas in Christopher Nolan's films, with three specific examples: *Inception* (2010), *Interstellar* (2014) and *Oppenheimer* (2023), shown through the three aspects of story ideas, character inner development and the use of sound and image symbols in the films.

In recent years, the issue of how Eastern ideas are received in the West has received more and more attention among researchers and scholars. A typical example of the study of the history of the reception of Eastern ideas in the West would be the following:

In 2019, East China Normal University established a major interdisciplinary research project "Lao Tzu's Doctrine in a Global Perspective of History - Verification and Analysis of the Origin, Connotation, Future and Overseas Influence of Lao Tzu's Thoughts". As part of the project, Wu Zhiyong (武志勇)'s article "How the Tao Te Ching came to the Western world" points out that Lao Tzu's books began to be translated into French and Russian from 1823, into English from 1868, and into German since 1870. From then on, this work was translated into a multitude of different languages across the globe and had a great influence around the world (<https://www.ecnu.edu.cn/info/1425/63732.htm>).

Other research by Shao Zhihua (邵志华) suggests that Confucian and Taoist ideological works were partly translated and spread to the West as early as the 16th and 17th centuries, but at that time the West only paid attention to their unique features. Specifically their unique beauty in Confucian thought, without paying too much attention to Taoist thought. Taoist thought only really gained attention from the late 19th and early 20th centuries, when people began to pay attention to the issue between humans and nature, as well as issues of the natural environment and the consciousness of mankind. From there began the "Taoist fever" in European countries, in particular, Germany (<http://www.nopss.gov.cn/n1/2019/0628/c219470-31201240.html>).

In addition, many other studies show that Indian classics such as *Ramayana* and *Mahabharata*, have also been translated into English since the early 19th century, (Klaus Karttunen, *Early Translation and the Impact of Hindu Text in Europe*) and have been continuously welcomed in Europe. It's also worth noting for the purpose of this essay that the subject of the eponymous film, Robert Oppenheimer, was in real life a reader of *Mahabharata*. He has quoted the *Bhagavad Gita* in interviews (<https://www.youtube.com/watch?v=pqZqfTOxFhY>).

As a director with a solid background in literature, Christopher Nolan has repeatedly shown us his talent in telling a compelling story, presenting a complex narrative structure and portraying the profound nature of human psychology.

In films such as *Inception* (2010), *Interstellar* (2014) and *Oppenheimer* (2023), he also showed that though he is a Western director he has a deep understanding of Eastern culture and thought, and at the same time has the ability to find the perfect combination of thoughts and ideas between East - West thought in his works.

1. Story Ideas

Inception (2010) is based on three big ideas, and these three ideas are all align with familiar Eastern concepts or stories relatively closely:

First, the idea that dreams are something that can be created, and people can create one or more worlds in their dreams. Dreams can be shared with many people, and each person can enter the world created in someone else's dream, by being invited, or by intruding. The main character in the film, Dom Cobb (Leonardo Di Caprio) is a 'professional dream creator' who has the ability to break into other people's dreams to find information, and even plant original ideas in other people's heads to manipulate their psychology. In the film, Cobb father (Michael Caine) introduces him to Adriane (Ellen Page), who is even more talented than him in creating a dream world, to carry out a special mission together in the goal of altering the future in a more positive way.

This concept of modifying our world through dreams can be seen in Indian philosophy. A great example is the story of Vishnu creating this world while sleeping. Vishnu lies in a dream-like state on the snake Adishesha, which represents Time, without beginning or end. As if dreaming, Vishnu watched Brahma create the Universe. By his act of observing dreams, Vishnu sustains the universe. When Vishnu woke up from his dream, that cycle of creation ended and a new one would begin with another dream.

The second main idea, is that it is very difficult for people to distinguish when they are in the real world and when they are in the dream world, because the dreams in the film are created in such a realistic way. Even professional dream creators like Dom Cobb cannot distinguish which world they are in, so they always have to use a totem, an object with a certain weight, to remind themselves of the real world.

This idea is very similar to Chuang Tzu (庄子)'s famous idea about dreams and reality, presented in the chapter 2 of the Book of Chuang Tzu (南华经): Chuang Tzu once dreamed that he was a butterfly flying happily, but he didn't know he was himself (Zhuang Zhou) anymore, then suddenly woke up and was surprised. At that point he stated he didn't know if he was himself, dreaming about turning into a butterfly, or if he was a butterfly dreaming about turning into him. Chuang Tzu and butterflies are all different. That's called "materialization".

Materialization is a change in consciousness between reality and illusion. The continuous flow between dream and awakening makes the distinction between the two phenomena become blurred, and then it is no longer important, because in the end reality and dream are just one, not binary.

At the same time, the idea that dreams and reality blend together is also close to the idea of "this world is an illusion" or "grand illusion" (Maya) in Hinduism. "The word Maya is derived from the Sanskrit root words "ma", meaning "not" and "ya", meaning "that". So the meaning of maya is "that which is not" (Maya was also the name of the mother of Lord Buddha.) [...] Lord Krishna states that the whole creation is his leela (divine child's play), and that creation came from his maya (illusion). You and I suffer because we are part and parcel of that maya (illusion) (Ed Viswanathan: 150) Maya refers to the power of the divine to create the material world and make it appear real, while simultaneously being unreal or illusory. In other words, maya is the veil of ignorance that prevents us from seeing the true nature of reality.

Besides, in *Inception*, dreams can also be layered. The more layering, the deeper one goes into the world of consciousness, and it becomes more and more real, but at the same time it becomes more and more distant from the real world. This idea is very similar to Hindu ideas about meditation and yoga.

Meanwhile, in ancient Greek literature, the interference between dreams and the real world was mentioned in the *Iliad*, when the god Morpheus was sent by Zeus to create a false illusion in Agamemnon's dream, and when Morpheus was sent by Hera to meet Alcyone in a dream, in the form of her dead husband Ceyx, to inform his wife of her husband's death. This also illustrates the difficulty in distinguishing between dreams and reality, but leans towards the meaning of "incarnation" rather than "materialization", and is shown very clearly in the movie *The Matrix*, with the presence of the character named Morpheus.

Interstellar (2014) presents the idea that all phenomena in this world have a special connection with each other, from quantum particles, to human emotions and to the entire universe. This connection brings a special vibration that can pull the past, present and future into one, and create the co-existence of both space and time.

This idea is said to be very similar to the ancient Indian idea found in the Vedas of universal super-consciousness that transcends space and time, connecting all human life.

The film also brings up the idea of time elasticity, when one hour on the planet known as Miller's planet is equivalent to 7 years on Earth.

This story is very similar to the story of King Muchukunda's time travel (dilation) in Indian legend. King Muchukunda helped the gods in heaven fight the demons, but one year in heaven is equal to three hundred and sixty years on earth, so when he returned to earth, his entire kingdom and family were gone.

2. Character Inner Development

In *Oppenheimer* (2023), we can also find new interpretations of ideas that make the film capable of guiding viewers' emotions while helping "shape" the audience's understanding of the main character in the way the director wants:

First, the creation of an atomic bomb was considered inevitable given the world political context as well as the level of scientific development at that time.

Second, Oppenheimer's psychological process in creating the atomic bomb makes the audience sympathize with the character, instead of judging him.

Third, Although Oppenheimer created the atomic bomb, he was considered an “executor” rather than a creator.

The *Oppenheimer* film began with a line of black type appears: “Prometheus stole fire from the Gods and gave it to man. For this he was chained to a rock and tortured for eternity” (Christopher Nolan 2023: 3). In the understanding of the writers of Oppenheimer's work, the atomic bomb symbolizes “fire”, and Oppenheimer is compared to Prometheus, who stole the fire of heaven to give to humanity, thereby suffering eternal punishment. When Christopher Nolan made this film, he went one step further, delving into Oppenheimer's psychological analysis especially during the creation of the atomic bomb. Christopher Nolan most likely relied on the philosophies of the *Bhagavad Gita* to establish the character's inner development.

The *Bhagavad Gita* is a sacred and great work for Indians as well as Hinduism, that can be read in many different ways. As a sacred metaphysical dialogue, as an emotional work with God as one anthropomorphic entity, or as a work of psychology, which is extremely skillful in analyzing and explaining the human mind. In the book *I am Gita*, Deep Trivedi wrote: “The first chapter of the Gita teaches us that every human being is grappling with his own battle of Mahabharata; this battle verily exists with him and simply manifests on the outside. And when the Mahabharata war exists within, then surely, its three principal characters, Krishna, Arjuna and Duryodhana that dwell within you, for, they are invariable present in each and every person in varying degrees.” (Deep Trivedi: 22) and then “Mind well, this war is verily a part of your psychology” (Deep Trivedi: 86).

An examination of the hero Arjun reveals similarities between him and Oppenheimer. Arjun was the most talented among the five Pandavas brothers, who always won battles. However, before the Kurushetra battlefield, he faltered when he saw that he was about to enter a deadly battle with his own friends, cousins, and uncles. He asked Krishna (incarnation of Vishnu) if there was any way to avoid this crime. “And, at present, that is exactly what Krishna is doing; administering psycho-treatment to Arjun to convince him to fight the war.” (Deep Trivedi: 38) Krishna's teachings then became a journey of spiritual guidance, as well as a journey of psychological transformation for Arjun.

That journey of psychological transformation can be divided into stages which we can compare to the modern film:

Firstly, Krishna told Arjun that if he withdrew, he would lose all his reputation and be laughed at. This was very important for a fierce and proud warrior like Arjun. Like Arjun, Oppenheimer was also a talented and proud man.

Secondly, Krishna showed Arjun the prospect that the people he loved would be killed if he retreated and did not protect them. At the same time, as a person of the Kshatriya, the warrior class, if he refused to participate in a war for righteousness, it would be a sin.

Likewise, as a Jew, Oppenheimer felt it was his responsibility to protect the Jews, who at that time were being oppressed and killed by the Nazis. At the same time, as an American,

Oppenheimer was also caught up in political issues between the United States, Nazis and the Russians.

Next, Krishna praised those who dared to fight, because heaven as well as glory on earth belonged to those people. He also stated that humans are neither creators nor victims, they need to do exactly what is their duty. Thus, man's job is not to choose right or wrong, but to do what he should do in the position that fate has placed him in. If people do exactly that with an impartial heart, without seeking anything for themselves, and without choice, then they do not commit a sin. In Oppenheimer, we can see a similar inner conflict being overcome by a single individual facing a great historical destiny.

Finally, Arjuna understood the core ideological principle of the *Bhagavad Gita*, and surrendered himself into the hands of fate. The *Amazing secrets of The Bhagavad Gita* wrote: "The actual verse has two parts: "Ahimsa paramo dharma; Dharma himsa tathaiva cha." Which means: Non-violence is the ultimate Dharma. So, too, is violence in service of Dharma. In other words, to preserve dhama (righteousness) and eradicate adharma, a person can resort to violence if non-violent methods fail. Lord Krishna tried his best to avoid a war. But Duryodhana wanted a war so that he could kill all of the Pandavas, and thus war became unavoidable" (Ed Viswanathan: 51).

Likewise, Oppenheimer did what he had to do in his time. The creation of the atomic bomb was both due to him and not due to him, nor was the bombing of Hiroshima and Nagasaki of Japan. He may have lived with a degree of guilt, but he was not roundly condemned for what he did.

3. The Use of Sound and Image Symbols in the Films

In Christopher Nolan's films, whether intentionally or unintentionally, there are often symbols of images and sounds that are oriental, or that often make people think of Eastern ideas.

The film *Inception* opens with a scene of waves crashing against the shore, then Cobb was found on the beach and taken to a castle built in Japanese architecture to meet a Japanese man named Saito (Ken Watanabe). This scene of waves crashing on the shore is repeated many times in the film. This image may remind viewers of Japanese artist Hokusai's timeless painting masterpiece "Under a wave off Kanagawa" (神奈川沖浪裏 – Kanagawa oki nami ura) painted in the famous Ukiyo-e style. Hokusai had been obsessed with waves for quite a long time, and painted a series of wave paintings between 1803 and 1834, the most prominent of which was "Under a wave off Kanagawa" (also known as "The Great Wave"). In the painting, Hokusai depicts an image of a giant wave off the coast of Kanagawa town (now the city of Yokohama, Kanagawa Prefecture), boats trying to escape the big wave, and in the distance is Mount Fuji. This painting is considered one of the iconic images of Japan, with a modern spirit in it that is considered more progressive than the Western art of the same period. It brings the rhythm of the sea, both fierce and heavy, reflecting the difficulties that human life must go through, but also expressing a discreet depth, facing dangers with a more sober Eastern perspective. In addition, the white foam surrounding the wave is a contrast to the weight of the wave, showing both the poetry of the scene and the impermanence of being there and then disappearing. The spirit of the picture is very similar to the film's message about the elusiveness of dreams, the ambiguity and difficulty of distinguishing between

dreams and reality, as well as man's desperate attempt to become a creator of the (dream) world.

Cobb's spinning top in *Inception* (2010) is also an important symbol, as it represents the distinction between reality and dreams. Only the owner of the top can truly know whether his spin top is real or not, thanks to its weight. The spinning top belonged to Cobb's wife, Mal (Marion Cotillard), and she locked it in the closet to refuse to leave her dream world. After her death, Cobb continued to use the spinning top, and the image of the spinning top continuing to spin at the end of the film is one of the things that caused speculation, even controversy, among moviegoers. This spinning top also reminds viewers of Eastern thoughts, because Eastern thoughts is often visualized as a constantly rotating wheel (in Indian thinking) or as a constantly moving tai chi map (in Chinese thinking).

In the movie, when people go deep into the dream and can lose themselves in it, setting up a song to help wake up the dreamers plays an important role. Many times, when people were lost in their dreams they would hear the music playing, and know they needed to wake up. This music may have been inspired by the awakening bell in Hinduism and Buddhism.

We might note an uncanny similarity between the way the film uses music to awaken people in different levels of their dreams, and the way Plum Village, a school of Buddhist practice (according to the teachings of famous Vietnamese monk Thich Nhat Hanh), explains the bell of mindfulness: "Sometimes we need a sound to remind us to return to conscious breathing. We call that sound the 'bell of mindfulness'. In Plum Village, whenever residents hear the clock ring, the phone ring or the monastic activity bell, they stop. Those are the bells of mindfulness. When such bells ring, all talking and activities cease. A resident described it this way. [...] That is the method we practice in the monastery. The bell can help us return to ourselves, return to the present moment. The bell is considered a friend, a Bodhisattva who helps us awaken" (<https://langmai.org/thien-duong/tt-can-ban-lang-mai/nghe-chuong/>).

In *Interstellar*, the notable symbols are the door frames that separate people from the outside world. When Cooper (Matthew McConaughey) was on the spacecraft, he frequently saw images of Earth and planets outside the window. He also received video messages from the Earth through a very small screen with large frame borders as dividing lines.

The most emotional scene in the movie is when Cooper returns to the spaceship after nearly dying on Miller's planet, and discovers that more than 20 years of time have passed on Earth. He turned on the video to follow his children's messages, and for the first time saw his daughter Murph (Jessica Chastain), who was the same age as he was when he left. The girl sent an emotional message to her father, saying that he once said maybe when he returned, he would see her again at his age, so this was the best time for him to come back. Her face appeared full of pain behind the black and white frame. The message ends, and the scene switches to her colorful real world in the laboratory, clearly demonstrating the spatial contrast between the video message and reality.

These frames are like the way people separate themselves from the entire outside world, in accordance with the idea of Atman and Brahman in Hinduism. Because people are so small, no matter how great their pain is, it is only contained within the narrow frames. The way the spaceship floats in the galaxy can also remind us of the records in the *Tao Te Ching* (道德经) of Lao Tz (老子): "There was something all murky shadow, born before heaven and earth: o such utter silence, utter emptiness. Isolate and changeless, it moves everywhere without fail:

picture the mother of all beneath heaven. I don't know its name. I'll call it *Way*, and if I must name it, name it *Vast*. Vast means it's passing beyond, passing beyond means it's gone far away, and gone far away means it's come back. Because *Way* is vast, heaven is vast, earth is vast, and the true emperor too is vast. In this realm, there are four vast things, and the true emperor is one of them. Human abides by earth. Earth abides by heaven. Heaven abides by *Way*. *Way* abides by occurrence appearing of itself" (Lao Tzu 2022: 31-32).

Additionally, on Miller's planet, the sound in the movie is always accompanied by ticking sounds, each ticking sound on that planet is equivalent to 1 day on earth, demonstrating the minuteness of humans before the universe.

In *Oppenheimer*, what is interesting is that the symbol of water is repeated many times through many different images: raindrops falling on the ground, raindrops flowing on the window frame, tears in people's eyes, the surface of the lake where Einstein picked up pebbles to throw into the water (to observe the ripples), and even drops of water rolling on the apple that Oppenheimer wanted to use to poison his professor.

Although the image of Oppenheimer looking at raindrops falling on the ground, or Einstein picking up pebbles and throwing them into the water, can all be explained as the act of observing a physical phenomenon by physicists, they can also be explained according to Eastern thought. Specifically in the sense of the relationship between the finite and the infinite, and the expression of the small human ego before the great universe. Similarly, the image of a drop of water rolling on an apple can symbolize the selfish and petty ego of people, originating at some evil time. When he was young, Oppenheimer was able to snatch the apple that the visiting professor was holding to his mouth to save him, but later he was unable to snatch the bomb back from the hands of the US government to save innocent people in Japan.

The hot scenes performed by the actors in the movie also have their own meaning. In it, there is a hot scene that is uniquely combined with slokas from *Mahabharata*: "And now I become Death, destroyer of the worlds." That was when Robert Oppenheimer (Cillian Murphy) was making love to Jean Tatlock (Florence Pugh), when Jean suddenly stopped, walked to Robert's bookshelf, picked up the book *Mahabharata* and asked him to read it. The two slokas rang out at the same time as Jean continued to make love to Robert. It was a combination of danger and satisfaction, which later, every time the sound of the two slokas resounded in Oppenheimer's head, was accompanied by danger, anxiety and even a guilty conscience, at the very same moment of satisfaction. However, it was no longer the pleasure of sex, but the pleasure of success and power. Meanwhile, along with the light and sound of exploding bombs are recurring symbols, representing people's ambition and inevitable suffering due to their lives of excessive ambition and continuous struggle.

Conclusion

We can see many examples of Eastern ideas being skillfully integrated into Christopher Nolan's films. These may be separate Hindu ideas, or they may be wide range of Eastern ideas that are difficult to identify as truly belonging to a certain individual thought.

This is my initial experimental research, and I have begun to notice that contemporary Hollywood movies tend to use Eastern ideas and images more and more. This could be a milestone in East-West cultural exchange.

In the past, when talking about the exchange of ideas, we often talked about the influence of ideological spheres, such as Indian ideology on Southeast Asian countries, or Chinese influence on other countries in East Asia, the influence of ancient Greek thought on Europe, or the influence of Western thought on the East in the late 19th and early 20th centuries, etc. But from the 21st century onwards, perhaps the Eastern thoughts will make a big impact on the West in return, and perhaps in the 22nd century there will no longer be any distinction between East and West. Therefore, I think a case like Christopher Nolan is very remarkable, because it firmly and systematically establishes the influence of Eastern thought in the style of a Western director, whether he is aware of it or not.

Acknowledgments

This research is funded by Ho Chi Minh City University of Education Foundation for Science and Technology under grant number CS.2022.19.25 TĐ.

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Contact email: vanpth@hcmue.edu.vn

***The Study of the Relation Between Interpretation and Existence:
Understanding How Spaces Transform Into Places Through Experience and Perception***

Belinda Carensia, Universitas Pelita Harapan, Indonesia
Judy Hidayat, Universitas Pelita Harapan, Indonesia
Kuntara Wiradinata, Universitas Pelita Harapan, Indonesia

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

When experiencing a space, different appreciators can have different experiences, perceptions, and interpretations of meaning. Why is that so? What factors make space meaningful for certain people, and what factors influence the perception and experience of space so that space changes into a place? A case study is the space in installation art. There is a generally limited understanding that space is a physical space formed by space elements, such as four walls, a floor, and a ceiling. However, imaginary space, space sensation, and space formed by non-solid elements, such as installation art, have yet to be widely studied. Chiharu Shiota's installation art space is chosen as a case study because Shiota shapes human consciousness and non-physical experience to represent personal struggles and social and cultural identity through art. The analytical method used is a case study with existentialism theory. This research provides an understanding that the interpretation of space is a process of contextualization, recontextualization, and decontextualization of meaning conveyed by the artist, a process influenced by the existential nature of the reader's background.

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Introduction

Interpretation has always been abstract, especially when discussing art interpretation. When we talk about it, art has always belonged in a broader sense to the humanities. Regarding how humans act and the intellectual work of each of us, interpretation and comprehension have always been the aim of art. Subjectivity has always played a decisive role throughout one's life, in which it approaches more towards interpretative manners than explanatory manners, both in intellectual works and human actions. When talking about art criticism, artists' social reality issues are the personal tools for their visual queries to fill in the gap between the practice and the research in the field of art. By doing so, art interpretation has always been leaning more toward subjectivity than objectivity.

Chiharu Shiota is not the first artist to incorporate her social reality issues through her art; nevertheless, she is one of the well-known artists who created her art to impact the viewers and visitors of her art installation to receive the messages she wanted to deliver. As Chiharu Shiota explained in one of her interviews with Actar Publisher in 2014, she purposely chooses mundane, daily life items as they connote humans' existences, connections, memories, and life stories. Chiharu Shiota's art installations are not only representatives of her message, but she also creates new meanings to the items. By doing so, it also allows viewers and or visitors to interpret her artworks however they want to, yet it also directs them towards how she wanted her artworks' messages to be delivered. Chiharu Shiota selected the components in her art installation, focusing less on novelty than relatability in mind, thus making these components proven as the most cross-culturally powerful. She also mentioned that she purposely chooses these components in the hope that her work will be able to deliver the message and incite certain feelings or nostalgia regardless of the viewers' and or the visitors' background.

Arguably, many see that art interpretation has been leaning more toward subjectivity rather than objectivity. How is it possible for each viewer and/or visitor to appreciate artworks? As everyone has their subjectivity, how is it possible to deliver a message from art to an individual in a more objective way? One can understand the concept of art interpretation through its language. Feelings guide interpretation, and subject matter with the representation of a medium, form, and context create meanings.

This paper focuses on how art interpretation in art appreciation can elevate the significance of social realities in contemporary art. In this case, the work of Chiharu Shiota, 'The Soul Trembles' in Museum MACAN, with the art installation title 'In Silence,' will be analyzed through contextualization, decontextualization, and recontextualization. By analyzing the paper through this approach, one can find the relationship between the art components and see the art more objectively. Therefore, one can be more objective in making art interpretation rather than take it subjectively.

The exhibition occurred from 26th November 2022 until 30th April 2023, with Museum MACAN (Modern and Art Contemporary at Nusantara) as the curator. This museum is Indonesia's first modern and contemporary art museum, which opens public access to local and international contemporary art. The museum has an active program of exhibitions and events in a 7,100-square-foot facility, including educational and conservation spaces. As the first museum created and dedicated to housing modern and contemporary art, this building applies contemporary values.

Methods

This paper uses the hermeneutic approach to find deeper meanings between the lines within a text. In this case, the text mentioned is not only in words but also in the art installation itself and the dialogues between the artist, the viewer, or the visitor. The hermeneutic approach is considerably suitable for understanding the interview done with the artist and the dialog that the viewer and/or visitor has said in the art installation.

The knowledge that develops in individuals is integral to what they have learned. Context not only discusses each individual's knowledge but also includes its social and cultural aspects. The contextualization process highlights any lack of similarity between the viewer's and or visitor's understanding of the situation and the actual situation.

On the other hand, decontextualization is a process of thinking about one's thinking and learning, in which it is intentional thinking about how one could think and learn. Decontextualization can also mean removing or extracting the specific rules, contexts, and processes that lead to a particular situation. Decontextualization discusses a certain topic without the specific context of the situation. Extracting the principles and the knowledge can generalize the specific use of context. This way, one could focus on managing the objective meaning of a situation.

Last but not least, once the extraction of the objective meaning from the decontextualization occurs, it has to be contextualized again. Recontextualization considers new situations in which the acquired factors and the objectivity knowledge could be proven useful to connect what the artist wants to deliver (context) and what the viewer or visitor received (decontextualization). It links the action and its context, which will help appreciate artworks.

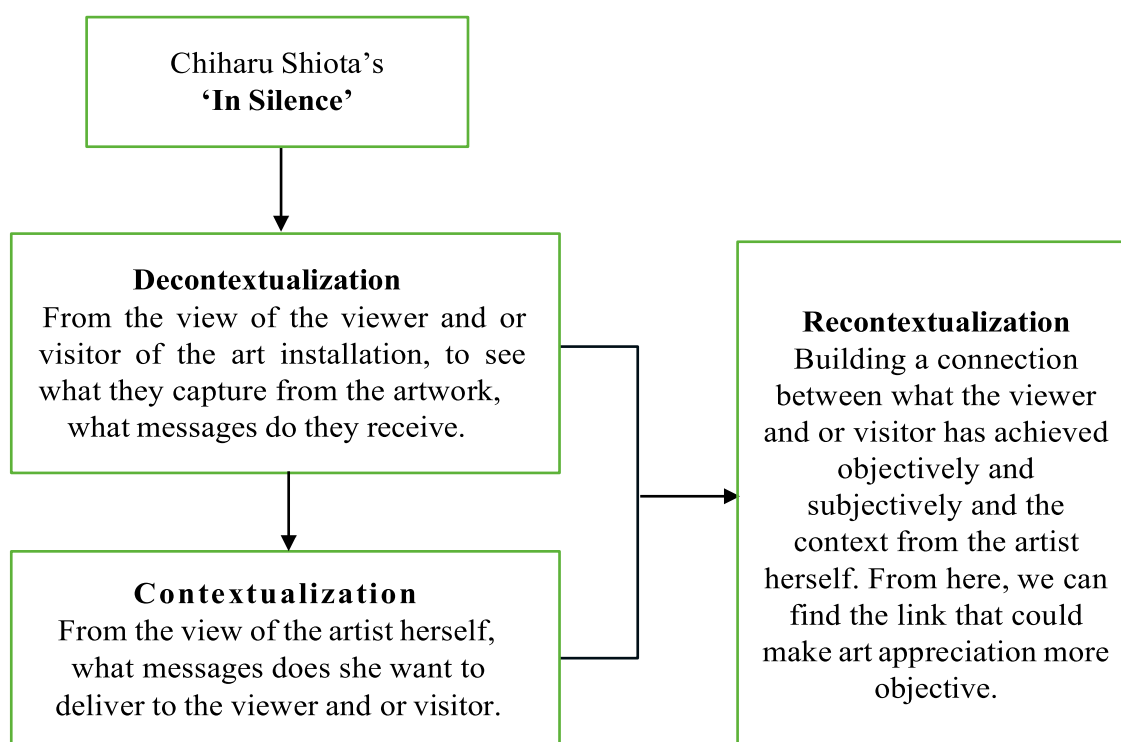


Figure 1: Analysis Method (Source: Carensia, 2023)

Decontextualisation

The decontextualization process talks about how the artwork speaks for the observer without having the artist herself be present with the observer to explain the meanings behind it. This process strips away all knowledge of the artwork from the artist and uses the interpretation based on the observer's knowledge alone.

During my visit to this exhibition, 'In Silence' caught my attention to observe the details closely. As an interior design student, I was captivated by how the objects were placed inside the space. The first thing I noticed when I first stepped into the installation space was the burnt piano in the middle, sitting there with no sound and thick black threads going upwards as if it was forming burning smoke. Then I realized that there were some burnt chairs across the piano, with similar treatment with the thread as if it was forming a burning smoke going upwards. All these threads go upwards and fill the entire space, from ceiling to walls.

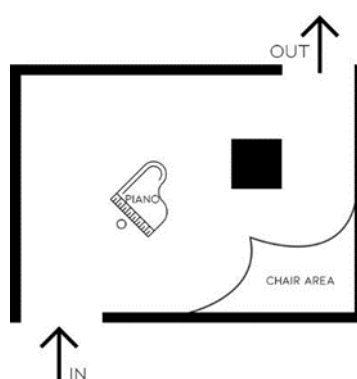


Figure 2: Visualization of 'In Silence' Floor Plan (Source: Carensia, 2023)



Figure 3: In Silence, Museum MACAN (Source: Carensia, 2023)




I then tried to understand the meaning of this burnt piano because it was located in the center of space; it seemed to be the 'centerpiece' of this art installation. As I used to play piano, I entirely understand when a piano is burnt to this stage, all the musical chords and keys have been burnt enough to the point it will not make any sound or even a single noise when the piano tuts are pressed, and not to mention the absence of the tuts on the piano. This piano is here, the object is here, I acknowledge the presence of the piano, but this piano has no value in being played by anyone as it has been 'silenced' by the burning smoke.



Figure 4: Burnt Piano (left), Burnt Chairs (right), Museum MACAN, 2022-2023
(Source: Carensia, 2023)

After I understood the piano, I started to look at the burnt chairs across it. It is as if there used to be audiences watching a piano performance, but now that the piano has no value in being played, there is also no audience left there anymore. Thus, it is symbolized by the burning chairs. A presence that used to be there, but now all the remains are just the object that shows that it used to be there, but now it is gone, and this burnt chair is the proof of a presence that used to be there.

Connecting the dots between the piano and the chairs as one, it becomes clear to me that the black thread surrounding the whole space, the jagged thick threads above the burnt piano and burnt chairs as if there are burning smoke; it wants to represent an incident of being caught in a fire and losing its voice during the process. Nevertheless, even if the voice is lost, the objects as remains stay there to be living proof of a presence that was once there. The way the threads are also slowly filling up the wall and the floor makes it look like a cloud of smoke is gradually filling up the room. The way the threads connect seems sharp, almost geometrical in an abstract way, and appears chaotic as each of the threads crosses one another multiple times. According to my observation of the art installation 'In Silence,' certain aspects of the art installation can be concluded in a table, as follows.

Components	Picture		Meanings
Burnt Piano			A lost voice, unable to function, silence
Burnt Chair			A presence, a proof that something used to be there
Black Threads			Smoke

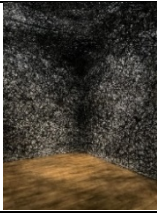
Connected Threads' Shape				Chaotic
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Table 1: Components and Meanings Based on the Observer (Source: Carensia, 2023)

Contextualization

The contextualization process talks about how the artwork speaks for the artist without even having the artist herself present during the duration of the exhibition. By doing so, we must understand the message and context within the piece that the artist tries to deliver to the viewer and/or visitor. 'In Silence' has been one of Chiharu Shiota's most well-known art installations. It speaks up about her experience during her childhood when her neighbor's house burnt down.

In her interviews with the Detached Cultural Organization (2011), she told the story of the incident that happened when she was nine. She was awakened at midnight because of the sound of burning wood and ran to wake her parents up. She then saw the remains of the fire, including a burnt-out piano that stayed in silence in the middle of it. She saw the incident and ran home scared. After that, she tried to play the piano, but her parents stopped her. They saw it inappropriate to do so when their neighbor had just lost their home to the fire. Those feelings during that time linger with her. She felt as if her voice was also being burnt down, and that is why she kept playing the piano. A few days later, the wind blew the remaining ashes. Chiharu Shiota smelled the burnt ashes, and from there on, it kept reminding her of how her voice was also lost during the incident every time she smelled the burnt ashes. She stated, "This happened 20 years ago. I always carry this silence within me, deep in my heart. When I try to express it, I lack the necessary words. However, the silence lasts. The more I think about it, the stronger it gets. The piano loses its voice, the painter does not paint anymore, and the musician stops making music. They lose their function but not their beauty. They even become more beautiful".

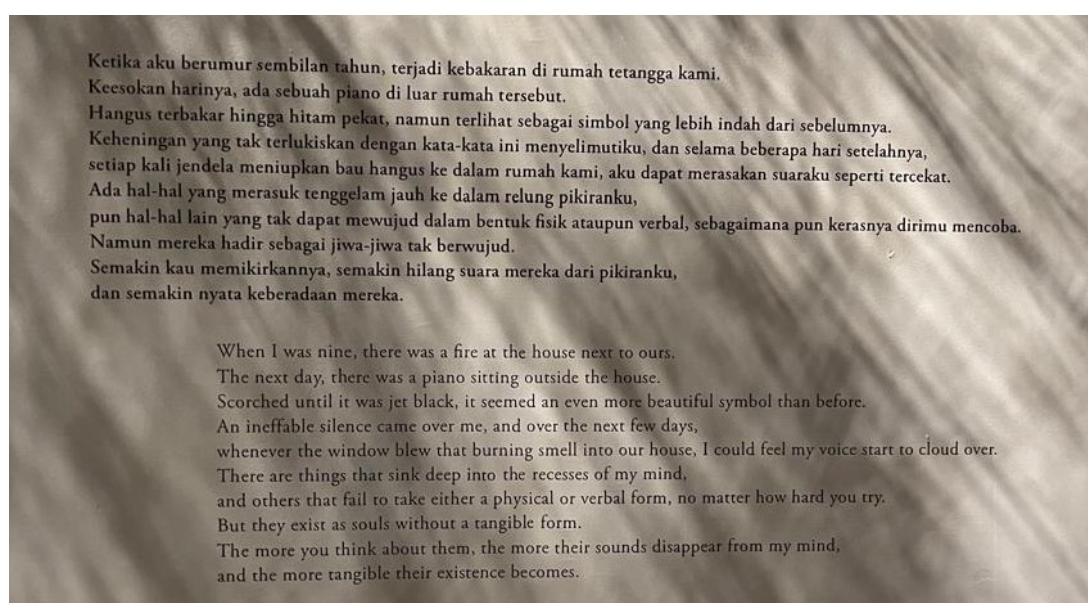


Figure 5: Text on the wall, Museum MACAN, 2022-2023 (Source: Carensia, 2023)

The art installation ‘In Silence’ comprises three main components: a burnt piano, burnt chairs, and black Alcantara thread. The piano is in the middle of the room, forcing every viewer and visitor to go through between the burnt chairs in the corner and the piano in the middle. All connected by many jagged black Alcantara threads. Unlike the other installation that uses the threads more softly, like a webbing of neurons, the jagged threads in this installation represent the chaos and the uninvited incident that happened. The message she tries to deliver to the viewer and/or visitor symbolizes a presence of nothingness. This is shown by the burnt piano that can no longer play music and the presence of burnt chairs with no audience. Meanwhile, the color black, according to the artist’s background as Japanese, represents the subconsciousness that brings the individual to a broader aspect. According to the artist’s perception of the art installation ‘In Silence’, certain aspects of the art installation can be concluded in a table, such as follows:

Components	Meanings
Burnt Piano	A lost voice, silence
Burnt Chair	A presence of nothingness
Black Threads	Subconsciousness
Connected Threads’ Shape	Chaos, uninvited incident (in negative ways)

Table 2: Components and Meanings based on the Artist’s Perception
(Source: Carensia, 2023)

Recontextualisation

Building the connection of the art installation ‘In Silence’ is based on what I had observed and the context from the artist herself. From here, we can find the link of the art installation ‘In Silence’ from the meanings of each component compared to each other (from my observation and the artist’s perception).

Components	Meanings (Observer)	Meanings (Artist)	Similarity	Difference
Burnt Piano	A lost voice, unable to function, silence	A lost voice, silence	A lost voice, silence	-
Burnt Chair	A presence of nothingness	A presence of nothingness	A presence of nothingness	-
Black Threads	Smoke	Subconsciousness	-	Smoke and Subconsciousness
Connected Threads’ Shape	Chaotic	Chaos, uninvited incident (in negative ways)	Chaos	-

Table 3: Comparison of Components and Meanings based on the Observer and the Artist’s Perception (Source: Carensia, 2023)

It is common knowledge that a piano is a musical instrument that plays music by pressing the hammers that will trigger the hammers inside the piano. These hammers will then strike the strings to vibrate so they can produce the piano's sound. Without the hammers, a piano cannot produce

any sound as it is the main component where the fingers will press (first contact with humans) to pull the trigger for the hammer to strike. Without the hammer, nothing will happen even if anyone is pressing the tuts, as it is missing a component that strikes the strings to produce the sound of a piano. Without the strings, nothing comes about, as the strings' vibration is the one that makes the sound of a piano. When the whole piano is burnt to the point that the strings inside are snapped, it is for sure that it will not be able to produce any sound.

Furthermore, the absence of tuts on the piano makes it even more evident that the component where it first makes contact with humans is not there. This piano is unplayable. Therefore, this piano cannot produce any sound. The message in the art installation that the piano tries to convey is that because it cannot produce sound, there is only silence in the room. The piano is an item that is supposedly a musical instrument; it has lost its' voice to produce sound in the way it should.

On the other hand, the burnt chair is pretty straightforward. The purpose of a chair is to be a piece that people can sit on, especially with the arrangement of the chairs facing toward the piano. It is also universally known that a piano recital usually has spectators that sit on the audience chairs. With the chairs burnt to the point that humans cannot sit on them anymore, it gives out its purpose as a chair. What is left is just the presence of an object that humans cannot use anymore. The message these burnt chairs try to convey is a presence of nothingness, which can be seen through the presence of the object shown to be unusable, therefore having nothing on it. Although this message is addressed slightly differently by the observer from the artist, both have the same essence of interpretation as a presence of nothing, of something that is not there anymore.

In addition to the more universal components that many individuals could easily comprehend as they are objects many know, the way the threads are connected is more subconsciously interpreted. The book *Art and Visual Perception, Second Edition: A Psychology of The Creative Eye*, cites that 'Separations are as essential to composition as connections. When there are no segregated parts, there is nothing to connect, and the result is an amorphous mash'. This kind of composition could be visually seen in how the threads are connected in the art installation, where it is as if a bunch of threads are connected through random lines, creating an amorphous mash. Human brains are wired to seek patterns and structure in the environment. Therefore, when they encounter these kinds of arrangements that could be seen as random or irregular, the brains might interpret them as chaotic as they do not easily fit into recognizable patterns. The artist wants to convey that this thread symbolizes chaos, and it could be seen or even felt subconsciously by the observer. Even though the observer might not know how the psychology behind the subconscious works, it still could be felt from the visualization of these threads, and the message of how these threads are connected is delivered subconsciously.



Figure 6: The Black Alcantra Threads, Museum MACAN, 2022-2023
(Source: Carensia, 2023)

On the other hand, another more subconsciously interpreted message that does not quite deliver is the color black of the threads. With the artist's background as Japanese, the color black has meanings that the artist carries. Black is usually associated with mourning, unhappiness, fear, bad luck, or misfortune. This color fits the theme of the art installation as it talks about the misfortune incident that happened in the artist's past. The color's meaning, though, is primarily subconscious; consequently, the message the color black wants to deliver is the power of subconsciousness. The philosophy of the color black in Indonesian tradition usually represents authority, elegance, honor, strength, and even luxury with an elegant impression. Therefore, the observer and the artist have their own cultural background, which makes a difference in interpreting the color black in this art installation.

Certain aspects could be ruled as similarities and differences that become the base of recontextualization. In terms of similarities, it is pretty clear that the components with similarities mostly have the universal understanding aspect. In this case, a piano is universally known as an instrument, which makes it straightforward enough for observers to understand that it functions to produce music, a chair as a presence, and a visual representative of chaos by random jagged lines created by the threads. On the other hand, as color in different countries has different meanings, the differences in the cultural background of the artist and the observer play a huge part in understanding the meaning of the color. Unfortunately, as this art installation took place in Jakarta, Indonesia, the observer who has been living in Jakarta for most of the time does not have this kind of subconsciousness that is deeply attached to the knowledge of the color black the way the artist does.

Discussion

Art interpretation brings value to the artwork itself; be that as it may, what is the relation of art interpretation that could bring value to the artwork? Does the difference in the observer's perception and the artist play a massive role in appreciating and understanding artworks? This discussion brought up some assumptions that the purpose of the artwork is to deliver the message from the artist even without the artist being present to explain the artwork. In this sense, the artwork plays a role as a reflection and or communication media in delivering the artist's life value. While art is primarily interpreted subjectively by individuals as it is how they respond to a work of art differently, there is also objectivity in valuing artwork as one depersonalizes themselves to understand the art as the art itself. This approach relies on the observer's experiences, feelings, and emotions in subjective interpretation. This paper adequately conveys that the observer can get most similarities in understanding the meaning

through a personal connection. This approach emphasizes individual perspectives and how an artwork means to them personally. Therefore, in practice, most observers usually use a subjective approach.

On the other hand, art historians, critics, and even scholars use objective interpretation to provide a broader context and analysis of the artwork. Align with that, this paper shows that the artist's universal symbols can be valued objectively. Objective interpretation seeks to analyze and interpret art based on observable elements.

A room characteristic can be seen after we analyze the room's components. In this case, the overall analysis based on the subjective and objective views of the observer can create a character composed by the art installation. As the topic talks about uninvited events shown by burnt pieces of furniture, the chaotic feel from the threads and the contrasting black and white color scheme create a certain strong characteristic of this art installation space. A room or space that brings out a chaotic memory from the past becomes the characteristic of this room or space. At the same time, the meaning of this room is a chaotic room that reminisces the uninvited incident in the past. The art installation itself creates it as a component. Spatial design intentionally crafts human environments that connect to the world around them. The discipline combines interior design elements (such as furniture planning), art installation, and architecture (playing with the building's foundation). The meaning of this room can be seen through a thorough analysis of the recontextualization in the previous section of this paper.

Overall, art interpretation adds a lot of layering in terms of meaning and context to the artworks. These are what make artworks more valuable to both individuals and the society as a whole. It enhances the enjoyment, appreciation, and significance of art.

Conclusion

In conclusion, after analyzing and understanding the table of comparison (refer to Table 3), it could be seen that observers and artists both interpret in different ways, especially when it comes to meanings that underlie subconsciousness. It is pretty evident that the burnt piano both means a lost voice and a silence that erupts from a musical instrument; burnt chairs mean a presence of nothingness; how the threads intertwined with each other means chaos; and last but not least, the difference that can be found in the meaning of the color black for the thread that the artist tried to deliver as subconsciousness comes off as smoke to the observer.

It could be seen that objects that represent universal understanding, such as chairs, piano, and shapes, can be understood objectively in the sense of what the item means and purposes in general. In a way, one could say how the item is universally perceived. On the other hand, subjectivity comes in when understanding the components more personally. For example, the background of cultural beliefs will affect how one perceives specific art components, such as colors. A good balance of subjective and objective aspects will create a relationship between the components, thus making one perceive and understand the meaning and message of what the artist wants to deliver. By understanding this, one could appreciate artworks more and increase the value of art.

Last but not least, understanding the objective and subjective way of seeing artworks and how one affects the other will create a strain of connection and understanding the deeper

meaning of an artwork and art interpretation. Eventually, going through this, one will elevate the significance of social realities in contemporary arts.

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Contact email: july.hidayat@uph.edu

A Preliminary Study of Painting as a Balancing Influence on Body and Mind

Huang Yunching, National Yunlin University of Science and Technology, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

In contemporary society, people face pressure from work, family, society, etc., which may have a negative impact on physical and mental health. How to adjust your psychology, relieve stress, and maintain physical and mental balance is a very important issue. This study aims to explore the effects of drawing, as an artistic activity, on regulating physical and mental balance. This study adopted methods such as document analysis, expert interviews, and FSQCA qualitative research analysis. The literature analysis covers theories and research on painting, psychology, etc.; expert interviews invite 15 experts in the fields of art and culture to conduct interviews; the research results are analyzed through qualitative research analysis and fuzzy set theory. Research results: Painting is beneficial to balancing the body and mind, activating the inner mind, regulating and balancing the body and mind; painting provides an outlet for emotions, expresses inner feelings and reduces emotional depression; painting helps visualize the soul, recognize and understand oneself, and enhance self-confidence and meaning. Painting is art and healing, and is good for physical and mental health. This article studies the impact of painting, provides research on painting education, art therapy, physical and mental health, and the direction of sustainable development.

Keywords: Painting Research, Artistic Influence, Balance Adjustment, Physical and Mental Health

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Introduction: Research Significance and Motivation

With the rapid changes in modern society and environment, most people are facing pressure from work, family, society, etc., and long-term stress may lead to negative impacts on body, mind, emotions, health, etc., so how to positively adjust inner emotions and relieve stress? Relieving stress to maintain inner physical and mental balance is a very important issue in the future. For this reason, this study hopes to use artistic painting as a positive influence to balance and soothe the body and mind.

This study uses painting as an influence in regulating physical and mental balance. The research method was based on literature analysis, expert interviews, FSQCA qualitative research analysis and other methods. In the literature analysis, theories and research from art, psychology, philosophy, etc. were used; in the expert interviews, 15 experts in art and cross-field fields were invited to conduct interview questionnaires; and then through qualitative research analysis, the research results were analyzed.

The artistic creation process creates experiences, understands psychological trauma, and establishes cognitive and existential meaning (Appleton, 2001). Art can heal trauma, and practicing self-care through art is a good way to regain a sense of self-efficacy (Kim, 2023). Jungian psychology deals with emotions through painting creation, connecting consciousness and subconsciousness. Art is self-exploration and healing, understanding, interpretation, and expression to balance the body, mind, and soul (Xu Minling, 2021). The flow of consciousness in painting creation unleashes creativity and potential, repairs the mind and heals emotions, is beneficial to physical and mental balance and promotes health.

Research shows that painting can be beneficial to balancing the body and mind, activating the individual's inner mind, and thus regulating and balancing the body and mind; painting provides a way to relieve emotions, expressing inner feelings can relieve inner emotional depression; painting can transform the inner mind into image visualization, and deeply Understand and understand oneself, strengthen self-confidence and sense of value. Painting is both art and a healing process, which can benefit an individual's physical and mental health. This study conducts in-depth research on the impact of painting, which can provide good directions for future sustainable development of research on painting education, art therapy, and physical and mental health.

Literature Discussion and Analysis

Art psychology expert Rodulf Arnheim proposed that art can help understand oneself and the world, and express the essence of things through artistic forms; creativity promotes recovery, and creativity processes non-verbal memory, suppresses confusion and restores hope (Corrado et al., 2022). The painting process visualizes the imagination in the mind and is a process of imagination, perception, intuition, and creation (Edwards, 2005). The process of painting creation helps to realize and express emotions, unleash individual creative potential, promote health and promote physical and mental balance. Art Tool Healing provides a safe space to process non-verbal trauma and facilitate communication through visual images. (Schnitzer et al., 2022). Art helps with psychological healing. As a tool for emotional expression and visual communication, art is a flexible way to express emotions and communicate.

Maslow, a psychologist in the 20th century, proposed that human beings have the need for self-realization, the expression of creativity and the realization of inner potential (Liu Siliang, 1998); American psychologist Carl R. Rogers proposed that "creativity is the only way to coexist in an ever-changing world." "Method", art releases the soul and achieves freedom. The essence of philosophical existentialism is that artistic creation is self-aware, producing creative action, expression, and awareness, becoming a cyclical relationship (Moom, 2011: 46). Korean art therapists study the interrelationship and harmonious effect of creativity (Kim, 2023) as shown in Figure 1; the circular diagram presents the core of the creative dimension, extending cognition, symbolism, emotion, perception, etc. Painting creation expresses self-creation, individual awareness and cognition, emotional expression and symbolism, imagination and creation, action and expression, opening up the senses and consciousness, creating continuous awareness and kinetic energy, and visual expression.

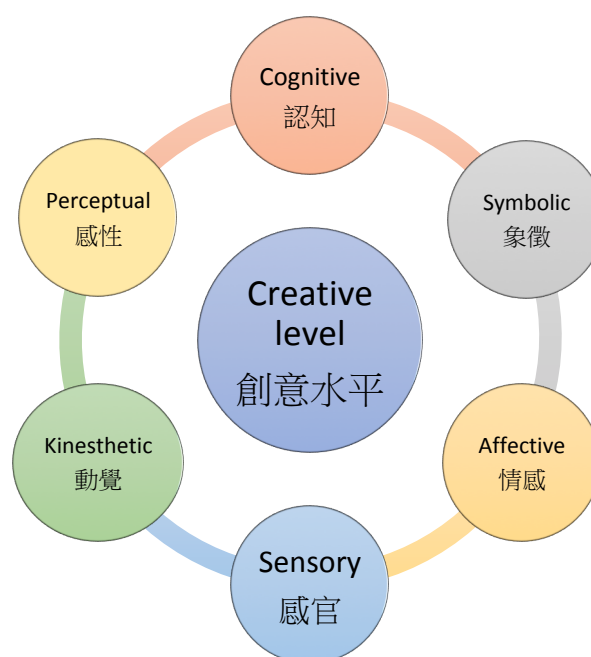


Figure 1: Hierarchical structure of expressive artistic therapy of mandala painting
(Source: Kim et al., 2020)

Neuroscientist Siegel explains that emotional responses are coordinated and balanced with the integrated functions of the prefrontal cortex of the brain relative to conscious awareness and cognition, and the creative process is close to meditation (Siegel, 2011); artistic creation can activate brain nerves and heal inner emotional trauma (Frances O'Brien, 2008); art promotes positive effects and helps activate perception (Reynolds et al., 2011); art helps regulate emotions, strengthen communication and expression skills, and the creative process maintains flexibility and change (Chilvers et al., 2021). Creation can strengthen self-healing; use art as a good way to heal the body and mind. Creation activates imagination and strengthens the mind. Creativity and painting images dialogue for psychological treatment and healing, so as to achieve physical and mental health and spiritual soothing and balance (McNiff, 1992); painting The process enters into conscious awareness and cognition, resulting in coordination and balance of body and mind, indicating that art can help relieve stress, heal, and soothe physical and mental emotions.

Art as therapy, art has healing potential, and creativity promotes mental recovery (Saavedra et al., 2017); art's non-verbal communication method is helpful for psychological recovery

(Gantt & Tinnin, 2009), and artistic creation is beneficial for communication and mental recovery, creative painting has become a good way to heal the soul and contribute to psychological recovery and peace. Art heals inner emotional memories, self-awareness, increases happiness, and creates a more positive self (Schnitzer et al., 2021); art therapy heals the body and mind and meets social needs (Anand, 2016). Art creation contributes to psychological healing, promoting awareness and expression, emotional flow, and a positive experience that balances the body and mind. Future cross-disciplinary research will turn to art for resolution, recovery, and psychological empowerment (Leavy, 2009). The process of painting creation goes through awareness and perception, imagination and creation, visual expression of the soul, and creativity helps balance the body and mind. In the future, there will be more cross-disciplinary research on the value of art and academic contributions.

Research Methods

In the research, painting is used as a way to balance the body and mind. The research methods include document analysis, expert interview questionnaire method, and FSQCA research analysis method. Research on the impact of painting as a balance between body and mind, experience creation and visual expression; this study invites experts from art, design, humanities, psychology and other fields to participate in the research questionnaire of expert interviews. The experts participating in the study are aged 45-70 years old, a total of 15 experts participated and were invited to fill in the research questions of the research questionnaire. After studying the data from the interview questionnaire, we used FSQCA qualitative analysis to get the results, and interpreted the conclusions of the research analysis results. The research conclusion is that participating in painting can contribute to emotional perception and physical and mental health.

This study first uses literature analysis to study relevant theories, including art, cross-field, psychology and other related research theories, including 1. The process of painting visualizes the mind as a flexible way to express emotions and convey perceptions; 2. Painting opens up imagination and Creativity, painting is the process of exploring possibilities and creating experiences; 3. Inner awareness and self-understanding, painting helps conscious awareness and cognition, and brings coordination and balance to the body and mind; 4. Creation is spiritual healing, visualizing and inner perception Dialogue to achieve physical and mental healing and balance.

The question grouping items in the expert interview questionnaire were designed based on the essential spirit of painting art, including beauty (aesthetics), emotion (psychology), and inspiration (creativity) as grouping attributes. Five extended question directions were designed in each to create a painting. The relationship between beauty (aesthetics), the related impact of the painting process on psychology (emotion), and the relationship and research on inspiration (creativity) when painting. Based on the research questionnaire design and response data, it was compiled and analyzed using FSQCA qualitative research. The results are used to explore and interpret the related effects of painting. Analysis of the research results can show that painting can bring positive effects on emotions and perception.

Research Results and Analysis

Study the design of group questions in the interview questionnaire, study the essence and core spirit of painting art, use beauty (aesthetics), emotion (psychology), and inspiration (creativity) as group attributes, and design five questionnaire items in each group attribute,

the relationship between the beauty (aesthetics) of painting creation, the related impact of the painting process on psychology (emotion), and the relationship and research of inspiration (creativity) when painting. Based on the research questionnaire design and response data, the FSQCA quality was compiled and This study analyzes the research results to explore and interpret the related effects of painting. The analysis of the research results can show that painting can bring positive effects on emotions and perception.

Experts who participated in the expert interview questionnaire included experts in art, design, psychology, etc.; from the perspective of creation and perception of the painting process, 41.2% agreed and 58.8 strongly agreed; in the process of painting, 43.8% strongly agreed and inspired creation and opened the creative experience mode. Agree, 50% agree; painting activates the brain and unleashes creativity, enhancing and activating the inner spirit, 70.6% of experts agree, 23.5% strongly agree; 47.1% agree and 47.1% strongly agree that the uniqueness of artistic creation has a creative spirit; painting unleashes imagination It helps to unlock mental potential and creativity, with 52.9% agreeing and 41.2% strongly agreeing. Painting can freely express emotions and visualize the mind to relieve emotions and stress. 17.6% agreed and 82.4% strongly agreed. Painting can recognize and understand the inner self, increase self-confidence and strengthen psychological quality. 25.6% agreed and 76.5% strongly agreed.

Painting helps visualize emotions to regulate the body and mind, with 17.6% of experts agreeing and 82.4% strongly agreeing. Painting expresses emotions and achieves creative freedom, with 47.1% of experts agreeing and 52.9% strongly agreeing; painting enables self-awareness and self-understanding, with 64.7% agreeing and 29.4% strongly agreeing; painting can produce beauty and pleasure, and creation has healing effects, with 17.6% of experts Agree, as many as 82.4% of experts strongly agree; 58.8% of experts agree that long-term participation in painting creation improves aesthetic education and enriches life, and 41.2% strongly agree. Painting presents the inner mind and creative experience. 41.2% of experts agreed and 58.8% of experts strongly agreed. On the influence of creation and art education, 82.4% of experts agreed and 11.8% of experts strongly agreed. On the impact of continuous painting and teaching, 17.6% of experts agreed and 82.4% of experts strongly agreed.

Analysis of Necessary Conditions

Outcome variable: Inspiration

Conditions tested:

	Consistency	Coverage
Focus	0.969697	0.927536

Analysis of Necessary Conditions

Outcome variable: Continued

Conditions tested:

	Consistency	Coverage
Focus	0.944444	0.985507
Inspiration	0.888889	0.969697

Variable	Mean	Std. Dev.	Minimum	Maximum	N Cases	Missing
Focus	4.6	0.4898979	4	5	15	0
Inspiration	4.4	0.6110101	3	5	15	0
Activation	4.2	0.5416026	3	5	15	0
Creative	4.4	0.6110101	3	5	15	0
Potential	4.4	0.6110101	3	5	15	0
Emotions	4.8	0.4	4	5	15	0
Strengthen	4.266667	0.4422166	4	5	15	0
Regulate	4.8	0.4	4	5	15	0
Freedom	4.466667	0.4988877	4	5	15	0
Confidence	4.266667	0.5734884	3	5	15	0
Healthy	4.8	0.4	4	5	15	0
Aesthetics	4.466667	0.4988877	4	5	15	0
Join	3.666667	0.6992059	3	5	15	0
Continued	4.8	0.4	4	5	15	0

Figure 2: Research data using FSQCA table
(Source: Huang, Y.C, 2024)

From the previous interview data chart analysis, we know that experts agree that painting has a positive impact on the body and mind; and through FSQCA analysis, we know that Emotions, Regulate, Healthy, and Continued are 4.8, showing a high recognition impact factor; and Join is 3.666667, which means painting It requires cognition and participation. Activation is 4.2 and Confidence is 4.266667, which are slightly significant influencing factors. The above data analysis shows that painting has a significant impact on emotion, regulation, health, and sustainability. As shown in Figure 3, the process of painting creation involves awareness and perception, going through the process of imagination and creation, and visual image expression. Creativity is beneficial to helping balance the body and mind. In the future, it is worthy of cross-domain research on the impact and academic contribution of art.



Figure 3: Painting experience process chart
(Source: Huang, Y. C, 2024)

Conclusion

Observing the rapidly changing contemporary society, modern people have many different pressures. Art can enrich and beautify life. The purpose of this study is to use painting to regulate and balance physical and mental stress. Painting can help maintain physical and mental health, and maintain emotional balance and flexibility in life, an issue worthy of continued research and concern in the future. The study explored the impact of painting as an art activity on which long-term participation can gradually regulate physical and mental balance. The research uses methods such as document analysis, expert interviews, and FSQCA qualitative research analysis. The expert interview research method invited 15 experts in the fields of art and culture to participate; qualitative research analysis was also used to collect interview data to analyze the research results.

The design of the research questionnaire is based on the essence and core spirit of the art of painting, with beauty (aesthetics), emotion (psychology), and inspiration (creativity) as research extensions. The question design in the interview questionnaire is studied to explore the connection between the beauty (aesthetics) of painting creation. The relationship and research on the psychological (emotional) impact of the painting process and the use of inspiration (creativity) when painting are based on expert research questionnaire design and response data. After compilation, FSQCA qualitative research analysis and research results are used to explore and interpret painting. The analysis of the research results shows that in expert interviews, most experts support and affirm the positive influence of painting, which helps regulate and balance the body and mind.

Research and analysis results show that: painting can be beneficial to balancing the body and mind, activating the individual's inner mind, and regulating and balancing the inner body and mind; painting provides an outlet for inner emotions, expresses feelings and reduces emotional depression; painting visualizes the mind's vision, can deeply understand and understand the self, and enhance Individual self-confidence and existential meaning. Painting

is art and a form of healing. Long-term participation is beneficial to physical and mental health. This study continues to study the impact of painting, and provides future research on painting education, art therapy, physical and mental health, and the significance of continued development.

Acknowledgments

Thank you to all the committee members of the ACAH academic seminar for your academic assistance and support; to the two supervisors for their careful guidance; to the experts who participated in the thesis research; and to my family and friends for their support and related work during the writing of the thesis. assist.

Art enriches and beautifies life. The researcher has devoted himself to art creation all year round. He has been engaged in art projects and teaching for more than ten years. He understands that art can keep the body, mind and soul flexible and balanced, and that art can help the world become a better place. Therefore, he has paid attention to this issue for many years. Research will continue in the future.

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Textual Analysis of the Most Popular South Korean Films: Value Practice of National Subjectivity Through Diverse Heroes From Humanistic Perspectives

Ying-Ying Chen, National United University, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

South Korean dramas have seen a strong rise in popularity on OTT platforms in recent years. However, in contrast to the resurgence of the Indian and Japanese film markets post-COVID-19 pandemic, South Korean cinema has faced a box office downturn. This indicates significant shifts in the factors influencing the popularity of South Korean films, prompting exploration into the distinctive characteristics of the most popular national cinema. One of the main features is the diverse style of heroic films, which are highly favored in South Korea. This study examines the top 10 highest-grossing South Korean films through the lens of humanistic values and the theory of subjectivity in public discourse. The analysis reveals that most popular South Korean films showcase a strong emphasis on various styles of heroism, offering insights into how South Koreans define and perceive themselves. The texts demonstrate a strong atmosphere of pragmatism, exploring the nation's historical trajectory and showcasing themes of anti-Japanese-colonialism, anti-dictatorship, anti-gangs, and resistance against oppressive conglomerates, portraying the enduring struggle of South Koreans for freedom. The texts portray a resilient national character, featuring historical figures resisting Japanese occupation, brave police officers, and ordinary individuals facing challenges in realistic or fantastical settings. There's a strong emphasis on heroism, unity, and patriotism, highlighting the inherent human worth in maintaining dignity and subjectivity in the face of challenges. The central theme of heroic figures transcends various genres, with a bold level of realism and taboo-breaking themes, placing South Korean cinema at the forefront in Asia.

Keywords: South Korean Film, Hero Analysis, the Most Popular Movies, Subjectivity of a Nation, Public Discourse

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Introduction

South Korean dramas have seen a strong rise in popularity on OTT platforms in recent years. However, in contrast to the resurgence of the Indian and Japanese film markets post-COVID-19 pandemic, South Korean cinema has faced a box office downturn. This indicates significant shifts in the factors influencing the popularity of South Korean films, prompting exploration into the distinctive characteristics of the most popular national cinema.

One of the main features is the diverse style of heroic films, which are highly favored in South Korea. The traits of heroes such as leadership, compassion, courage, integrity and self-sacrifice are commonly observable as values from drama or movies and these are the values we cherish heroes since they usually step forward in critical moments to support others and are resilient to adversity and difficulty. The definitions of heroes portrayed by the media are one of the sources that provides people's shared knowledge and goodness. In crucial moments of a nation, what kinds of most popular cultural products defined by fans may enhance or challenge society's existing collective memory and knowledge. The culture industries can produce texts or cultural resources for the formations of the people to use or reject the process of producing their own popular culture (Fisk, 2010, P.19); however, the formation of "the people" is moving "fluidly" since individuals belong to different social categories and not only the people, but also the popular, and the popular forces are "a shifting set of allegiances" as people's felt collectivity. (p.20). Identity, independence and autonomy may be related to the issue of being homogeneous for the formation of the subjectivity of a nation. Scholars have been discussing the importance of how to find the public when the people face the issue of the eclipse of a republic or democracy (Dewey, 2016). Discourse ethics is also examined in the meanings of public life (Finlayson, 2005). Public sphere can be analyzed through following concepts such as forums, private citizens, conversation, public opinion, authoritative representatives, legitimation, people's will and the Common good. In terms of public heroes and the public's action, professional knowledge of governing the country and important issues in society related to whether people are able to judge and take action by common sense, knowledge, common good under the classic theories of democracy. This study connects the concepts of most popular movies and the public sphere by exploring whether the text of most popular movies in Korea have shown public connotations.

Literature Review

Dewey (2016) explored the public and its problems by emphasizing that aiming to be human is to develop "an effective sense of being an individually distinctive member of a community; one who understands and appreciates its beliefs, desires and methods, and who contributes to a further conversion of organic powers into human resources and values" (p.155) which reflect the idea of "a shared interest." He explains through the work of conversion of associated behavior into a community of action by mutual interest in shared meanings, consequences which are translated into ideas and desired objects by means of symbol (p.154).

Schwartz (2012) identifies ten basic personal values from a circular structure that reflects the motivations each value expresses the conflicts and compatibility among the ten values (Table 1). Among these values are universalism, benevolence, conformity, tradition, security, self-direction, stimulation, hedonism, achievement, and power which will be used to analyze the text in which public heroes are portrayed.

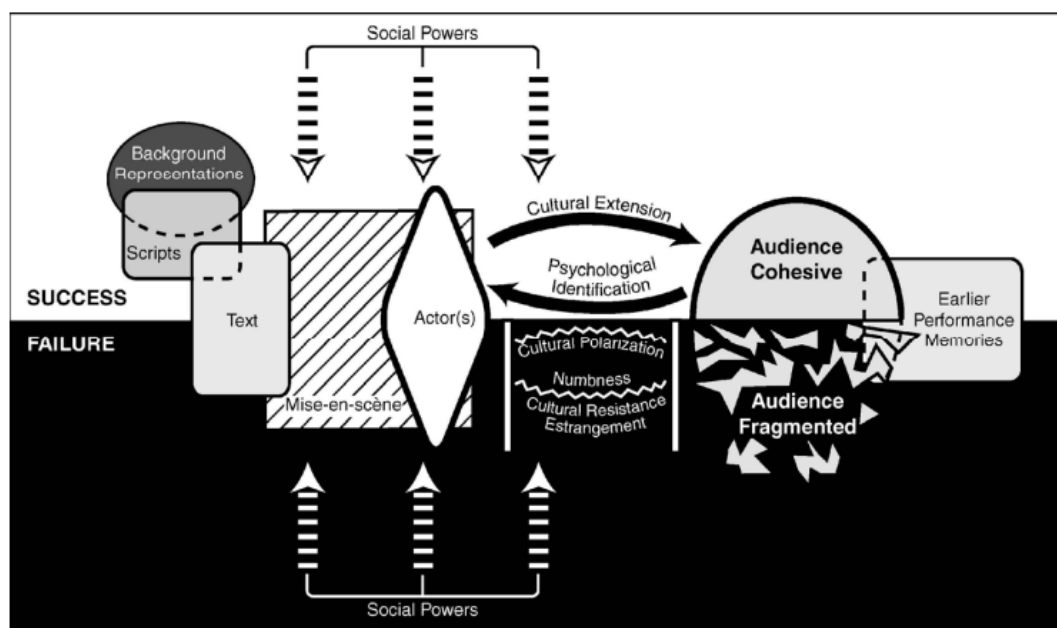
Table 1: The ten personal values and their defining goals

Value	Defining goal
<i>Self-Direction</i>	independent thought and action, expressed in choosing, creating and exploring
<i>Stimulation</i>	excitement, novelty, and challenge in life
<i>Hedonism</i>	pleasure or sensuous gratification for oneself
<i>Achievement</i>	personal success through demonstrating competence according to social standards
<i>Power</i>	control or dominance over people and resources
<i>Security</i>	safety, harmony, and stability of society, of relationships, and of self
<i>Conformity</i>	restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms
<i>Tradition</i>	respect, commitment, and acceptance of the customs and ideas that one's culture or religion provides
<i>Benevolence</i>	preserving and enhancing the welfare of those with whom one is in frequent personal contact (the 'in-group')
<i>Universalism</i>	understanding, appreciation, tolerance, and protection for the welfare of <i>all</i> people and for nature

Schwartz, S. H. (2022). Understanding values: Schwartz theory of basic values, retrieved from <https://i2insights.org/2022/05/10/schwartz-theory-of-basic-values/>

In addition, Schwartz listed the shared motivational emphases (listed as italics by the author) of adjacent values: as power and achievement--*social superiority and esteem*; achievement and hedonism--*self-centered satisfaction*; hedonism and stimulation--*a desire for affectively pleasant arousal*; stimulation and self-direction--*intrinsic interest in novelty and mastery*; self-direction and universalism--*reliance upon one's own judgment and comfort with the diversity of existence*; universalism and benevolence--*enhancement of others and transcendence of selfish interests*; benevolence and tradition--*devotion to one's in-group*; benevolence and conformity--*normative behavior that promotes close relationships*; conformity and tradition--*subordination of self in favor of socially imposed expectations*; tradition and security--*preserving existing social arrangements that give certainty to life*; conformity and security--*protection of order and harmony in relations*; security and power--*avoiding or overcoming threats by controlling relationships and resources*. This study uses adjacent values to explain different motivations for modes of behavior when facing the issue of subjectivity of a nation.

This research explores possible public humanism as the display of civic virtue and civility of a republic which is possibly the final fence against challenges of the subjectivity of a nation if all other political, defense, economic forces fail. Alexander (2006) cited Turner to explain how social identity is shaped mainly focusing on the intersection between performance, ritual and social action as a demonstration of the sociology of culture (See figure below.) The ability to sustain collective belief through ritual-like social performance and reinvigorate collective codes is important to interpret people's life and struggle. Cultural pragmatics as model and morality can be demonstrated in Figure 1.



The figure is readjusted and retrieved from Alexander, J. C. (2006). Cultural pragmatics : Social performance between ritual and strategy. In J. C. Alexander, B. Giesen, and J. L. Mast (Eds.), *Social Performance: Symbolic Action, Cultural Pragmatics, and Ritual*. p. 77

Figure 1: Audiences and performance.

Most popular movies produced by a nation not only demonstrate the image of its nation to its nationals but also to the global audience. National symbols of a republic need to be socially embedded with cultural artifacts to remind its nationals as an imagined community. However, sometimes, the socially embedded networks are only limited to a corrupt or problematic circle; it may bring disasters for a nation. In contrast, within the corrupt context, the hero may take an action to resist the narrowly embedded network to conquer impossible missions. For example, in terms of the state and international relations, Hobson (2001) defined the domestic agential power of the state by referring to the ability of the state to shape the domestic realm and construct policy free of domestic social structural constraints; therefore, he asserted that so the international agential power of the state could possibly shape the international realm and construct foreign policy free of international structural constraints. He argues that states may enhance their governing capacity with synergistic linkages with reflexive domestic agential power, “where the more reflexive or embedded the state is within society, the more both benefit” (p. 412).

Textual Analysis

Two kinds of most Popular Movies: Box office of a nation’s movie market and local movies in the global market are measured. In this study, the former is measured as the highest-grossing films in Korean box office; in contrast, the latter is the highest-grossing Korean films in global box office. In total, 20 movies were collected and finally ten movies were analyzed in this study after the author deleted the repetitive Korean films and Hollywood films, the values of which are not the interest of this study. The five movies are selected as the highest-grossing films in Korean box office in order: *Extreme Job*, *The Admiral: Roaring Currents*, *Along With the Gods: The Two Worlds*, *The Roundup 2*, and *Ode to My Father*. Another five movies are added as the highest-grossing Korean film in global box office analysis in this study: *Parasite*, *Train to Bushan*, *12.12: The Day*, *Along with the Gods: The*

Last 49 Days, and *Veteran*. These 10 movies are considered the text selected by Koreans or by global moviegoers who appreciated public humanism reflected in Korean movies. Five Hollywood movies are on the Top 10 box office in the Korean movie markets: *Avatar: the Way of Water*, *Avatar*, *Avenger: Endgame*, *Frozen 2*, and *Aladdin* (Please see Table below). All the five movies are listed in the genre of sci-fi or fantasy.

Table 2: Movies analyzed as the most popular movies in this research

Highest-grossing films in Korea		Highest-grossing Korean films	
Extreme Job	2019	Parasite	2019
Avatar: The Way of Water	2022	The Admiral: Roaring Currents	2014
The Admiral: Roaring Currents	2014	Extreme Job	2019
The Roundup 2	2022	Along With the Gods: The Two Worlds	2017
Avatar	2009	The Roundup 2	2022
Avenger: Endgame	2019	Ode to My Father	2014
Along With the Gods: The Two Worlds	2017	Train to Bushan	2016
Frozen 2	2019	12.12: The Day	2023
Ode to My Father	2014	Along with the Gods: The Last 49 Days	2018
Aladdin	2019	Veteran	2015

Textual analysis is conducted to discuss the meanings of most popular movies that are able to convey public connotations. Three out of the ten movies are in the genre of history: *The Admiral: Roaring Currents*, *Ode to My Father*, and *12.12: the Day*, all of which explain how Koreans struggled or experienced sufferings to keep their national sovereignty or their family reunion. Three of the ten movies are related to cop movies dealing with courageous teams of heroic cops solving serious crimes that are almost impossible to control (*Extreme Job*, *The Roundup 2*, and *Veteran*). Three movies are religion and zombie movies and their themes focus on how Koreans deal with issues of poverty, betrayal, disasters, bio-chemical crisis or regrets (*Along with the Gods: The Two Worlds*, *Along with the Gods: The Last 49 Days*, and *The Train to Bushan*). *Extreme Job* as a Comey and cop team movie won the Top 1 title in the Korean movie market and Oscar-awarded movie *Parasite* won the title as most Korean grossing film globally. *Parasite* as an outlier of this study, with a style focusing on how poor people lost their humanistic characteristics and went extreme as to lose their dignity to do whatever it takes to live in a rich mansion. This is the only movie that shows no higher level of humanistic values but how the main characters turn criminals with a desperate desire for a good life. Therefore, this movie is not analyzed in this study. Humanism values, civility, and civic virtue are used as the structure to analyze the 10 movies listed as the context of most popular Korean movies. Schwartz's theoretical model of relations among ten motivational types of value are applied to this study.

Findings

This study examines the top 10 most popular South Korean films through the lens of humanistic values and the theory of subjectivity in public discourse. The results show that one of the main features is the diverse style of heroic films, which are highly favored in South Korea. The analysis reveals that most popular South Korean films showcase a strong emphasis on various styles of heroism, offering insights into how South Koreans define and perceive themselves. The texts demonstrate a strong atmosphere of pragmatism, exploring the nation's historical trajectory and showcasing themes of anti-Japanese-colonialism (*The Admiral: Roaring Currents*), anti-dictatorship (*12.12: the Day*), anti-gangs (*Extreme Job*, *The Roundup 2*), and resistance against oppressive conglomerates (*Veterans*), portraying the enduring struggle of South Koreans for freedom from a global and historical perspective (*Ode to My Father*), from a virus-crisis perspective (*Train to Busan*), from a religion and life-death perspective (*Along with the Gods: The Two Worlds*; *Along with the Gods: The Last 49 Days*). The texts portray resilient characters, facing challenges in realistic or fantastical settings, featuring historical figures resisting Japanese occupation, brave police officers, and ordinary individuals, discussed as below. Types of genre, crises heroes facing, values of heroes are analyzed.

Table 3: Analysis of heroes from movie genres, crises, values as a means to an end/
motivational types

Movie name	Movie Genre	Crisis Hero facing	Background of heroes	Values of heroes
<i>The Admiral: Roaring Currents</i>	Epic historical action-war film	the demise of a nation	the savior of a nation	1. Universalism and benevolence--enhancement of others and transcendence of selfish interests 2. Security and power--overcoming threats by controlling relationships and resources 3. Benevolence and tradition--devotion to his nation 4. Stimulation and self-direction--intrinsic interest in novelty and mastery
<i>12.12: The Day</i>	Historical action -political drama	the stealing of a nation	A general failed to stop a military coup from a dictator who was later described as a butcher for killing his own nationals	1. Universalism and benevolence--enhancement of others and transcendence of selfish interests 2. Benevolence and tradition--devotion to military 3. Security and power--overcoming threats by controlling relationships and resources 4. Conformity and security--protection of order and harmony in relation

<i>Ode to My Father</i>	Historical/ global drama	the fall of a family during crisis of war and poverty	the first-born male's responsibility starting as a kid	1. Universalism and benevolence--enhancement of others and transcendence of selfish interests 2. Benevolence and tradition--devotion to his family and friends 3. Tradition and security--preserving existing social arrangements that give certainty to life 4. Conformity and security--protection of order and harmony in relations
<i>Extreme Job</i>	Action Comedy/Cop team/	A captain who has lost his dignity and his squad is about to be relieved	Outstanding performance as a detective team suffer low budgets and bad luck	1. Universalism and benevolence--enhancement of others and transcendence of selfish interests 2. Benevolence and tradition--devotion to his narcotics squad 3. Hedonism and stimulation--a desire for affectively pleasant arousal 4. Stimulation and self-direction--intrinsic interest in novelty and mastery
<i>The Roundup 2</i>	Crime action/Cop team/	Korean cruel criminals fled abroad and cannot be apprehended.	Outstanding performance as a detective team facing foreign cops' refusal to help	1. Universalism and benevolence--enhancement of others and transcendence of selfish interests 2. Benevolence and tradition--devotion to his team 3. Hedonism and stimulation--a desire for affectively pleasant arousal 4. Stimulation and self-direction--intrinsic interest in novelty and mastery
<i>Veteran</i>	Action Crime Comedy/Cop team/	Detectives are unable to exercise their authority in the case of a murder committed by a South Korean chaebol heir.	Outstanding performance as a detective facing a corrupt system	1. Universalism and benevolence--enhancement of others and transcendence of selfish interests 2. Benevolence and tradition--devotion to his team and responsibility 3. Hedonism and stimulation--a desire for affectively pleasant arousal 4. Stimulation and self-direction--intrinsic interest in novelty and mastery

<i>Along With the Gods: The Two Worlds</i>	Religion/fantasy action	A firefighter enters the hell as a perfect dead man with secrets	Secrets were revealed about a firefighter who attempted matricide but was regarded as a revered figure in the community.	1. Universalism and benevolence--enhancement of others and transcendence of selfish interests 2. Self-direction and universalism--reliance upon one's own judgment and comfort with the diversity of existence 3. Benevolence and tradition--devotion to his family
<i>Along with the Gods: The Last 49 Days</i>	Religion/fantasy action	Three hell envoys with secrets of historical issues	The intertwined life-and-death grudges and affections of three hell envoy across their past encounters	1. Universalism and benevolence--enhancement of others and transcendence of selfish interests 2. Self-direction and universalism--reliance upon one's own judgment and comfort with the diversity of existence 2. Benevolence and tradition--devotion to one's in-group
<i>Train to Bushan</i>	Action horror	Crisis of zombies and the extinguish of humans in cities	A father is determined to carve out a path to survival for his beloved wife, their unborn baby, and his fellow sufferers.	1. Universalism and benevolence--enhancement of others and transcendence of selfish interests 2. Benevolence and tradition--devotion to humans, friends 3. Self-direction and universalism--reliance upon one's own judgment and comfort with the diversity of existence 4. Conformity and security--protection of order and harmony in relations 5. Security and power--avoiding or overcoming threats by controlling relationships and resources

Heroes in this text analysis are more likely to have wisdom to solve crises by being openness to change as self-direction and self-transcendence as universalism and benevolence for self-expansion and growth and promotion of gain goals. Indeed, heroes may face anxiety, possible loss, and threat that might damage their achievement, authority, and security. However, they will take chances for a possible better future for universalism. Values of self-transcendence are very clear in this analysis although there is congruence and conflict among the values and that brings heroes' actions more drama and plots implicated simultaneously make heroes' dilemma in their decisions. (See Figure 2 below).

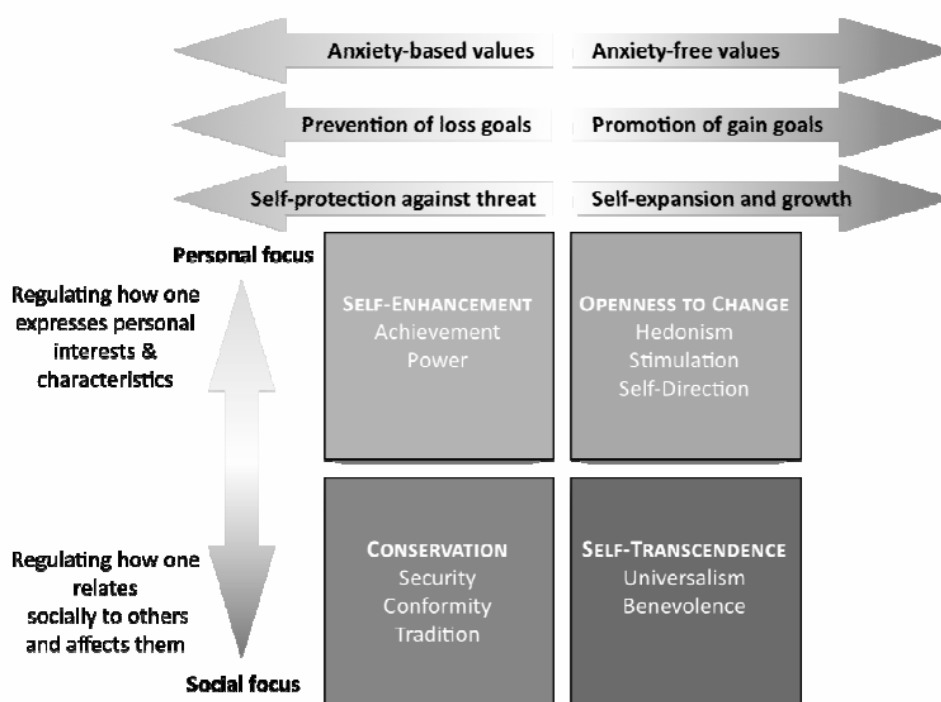


Figure was adjusted and remade by the author, retrieved from An Overview of the Schwartz theory of Basic Values, Schwartz, S. H. (2012). p.13

Figure 2: Dynamic underpinnings of the universal value structure.

Conclusions

The results show that popular culture may be a means for searching for the public and the great community through culture and social ritual. There's a strong emphasis on heroism, unity, and patriotism, highlighting the inherent human worth in maintaining dignity and subjectivity in the face of challenges. The central theme of heroic figures transcends various genres, with a bold level of realism and taboo-breaking themes, placing South Korean cinema at the forefront in Asia.

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***Narrative Imagination in Japanese Fantasy and Animation Films:
A Dual Melody of the Value of Transcendence and Humanistic Resilience***

Ying-Ying Chen, National United University, Taiwan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Contrasting the struggles of various international film markets in the wake of the Covid-19 pandemic, Japanese cinema has achieved remarkable success in both domestic and international box offices in recent years. This paper conducts a narrative analysis of the top 10 most popular Japanese films, revealing trends in storytelling under the dominance of fantasy backgrounds and animated film genres. The analysis unveils the following narrative trends: Japanese youth facing extreme and surreal challenges exhibit passionate pursuit and uphold the ideals of righteousness and beauty in adversity, becoming a prominent feature of Japan's most popular films. Among these, the concept of the virtue of transcendence helps protagonists interact and collaborate with spirit, ghosts, divines, and animals in alien realms to beat evil. The youthful protagonists, compared to secular adults, exhibit a more open mindset, embracing diverse backgrounds, transcending ideologies, accepting different identities and appearances, and upholding the humanistic values of compassion, dignity, goodness, and the pursuit of truth. These narratives have been touching hearts of fans in Japan and worldwide, offering storylines that comforting experiences of mishaps such as prejudices, discrimination, natural disasters, pollution, class divisions, suffering, resentment, and loneliness. These healing narratives present a unique worldview of Japan: a dual melody of the value of transcendence and humanistic resilience in rhythm.

Keywords: Japanese Animation, Humanistic Resilience, the Most Popular Movies, the Value of Transcendence, Humanism of Citizens

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Introduction

Japanese cinema has achieved remarkable success in both domestic and international box offices in recent years and the Japanese movie market not only survives from the Covid-19 pandemic but also from the challenge of more OTT options among the trend of many shrinking international film markets. At The Japanese box office at the end of June, 2024, all top 10 movies are Japanese movies (Mojo Boxoffice, 2024). One can argue that Hollywood movie industries are under an unfriendly environment for U.S. domestic disputes; however, if we compare the Korean box office at the same time period with that of Japan, 5 out of Top 10 Korean movies are still Hollywood movies (Mojo Boxoffice, 2024). Japan is listed as the third biggest market by Box Office Revenues next to the United States and China (Flix Patrol). The Japanese anime industry propels Japan's film market to stand out alone. In addition, this industry not only has a large fan base domestically, but also attracted global audiences, creating a unique market in popular culture. Studies have shown interest about how most popular movies and dramas are related to the public sphere (Chen, 2023). The Japanese movie market meets the criteria to explore whether its most popular movies have a connotation of publicness. First, Japanese anime in its movie market carves out a niche market in popular culture. With a robust system of manga magazines and serialization platforms, the industries allow manga and anime to quickly receive market feedback, emphasizing the market's importance and making adjustments, thereby increasing opportunities for diverse creation and publication channels. Second, the government is open about its market. Thirdly, less inappropriate Japanese governmental influence to damage markets in terms of domestic competition for government funding. Fourthly, Japan is a society with free speech and free public discourse. Japan with a distinguishable cultural background could help understand how most popular movies could convey public connotation to its citizens and global audiences.

Perspectives of western humanism discuss the relationship between morality, capability, instrumental and terminal values to explore how human practice can promote the achievement of a better common goal for individuals and society. This approach aims to increase the number of people doing good while reducing the deterioration of society into negative aspects of human nature. Values, hierarchical needs and motivations linked with modes of behaviors are often used to explain why different kinds of souls of humans can help to achieve the pursuit of happiness through personal or social level not only by morals or competence but also by pursuit the beauty of the end states which could only achieve with a higher goal for new vision of the future. This study explores the narratives in the most popular Japanese movies to explain how the pursuit of happiness could be related to humanist perspectives manifested in these most popular movies.

Literature Review

Fiske (2010) differentiates between mass culture and popular culture. The former is usually criticized for it represents the idea that the cultural "products" from industrialized, capitalist society may manipulate the audience; in contrast, the latter as Fisk emphasizes how people can subvert these products to create their own meanings and messages. However, this study argues that people as consumers and the public are not creating messages just for resistance; in contrast, the public may need symbols that represent them as the public, the nationals, and the identities they are in need of. Scholars have distinguished values related to further belief, attitudes, knowledge or action. The public in a republic needs to create a state of happiness with sovereignty within a geographical area protected by law and the defense. Values are

discussed how both end states of existence as a society or a person could both achieve their goals. Scholars use the Rokeach Value Survey to measure social and personal values by terminal values and instrumental values; the former indicates end states of existence and the latter explains modes of conduct through which people could achieve their goals in their lifetime (RVS; Rokeach, 1973). Instrumental values are preferable modes of behavior as means to motivate, cultivate, and achieve the terminal values; in addition, both have personal and social components. This study will use the concept of a means (instrumental values) to an end (terminal values) to analyze the context in this study. Please see the Table 1 below.

Table 1: A Means (Instrumental Values) to an End (Terminal Values)

Terminal Values	Instrumental Values
Wisdom	Intellectual
Freedom	Capable
Self-respect	Honest
A sense of accomplishment	Responsible
A world at peace	Imaginative
Equality	Independent
A world of beauty	Broad Minded
Inner harmony	Logical
Family security	Ambitious
Social recognition	Helpful
Happiness	Courageous
An exciting life	Self-controlled
A comfortable life	Loving
True friendship	Forgiving
Mature love	Cheerful
National security	Polite
Pleasure	Clean
Salvation	Obedient

Table 1 is remade by the author and is edited from the Rokeach Value Survey (RVS) [Database record]. Rokeach, M. (1973). APA PsycTests
<https://doi.org/10.1037/t01381-000a> and listed by Winchester, Maxwell. (1999).

Concepts of values are related to Aristotle's assertions about how ethics and action are related to happiness and the soul of humans. In this study, self-actualization of the hierarchical needs from Maslow are also applied (1971). Maslow amended his model, placing self-transcendence as a motivational step beyond self-actualization with important consequences for understanding of worldviews regarding the meaning of life and the motivational roots of altruism, social progress, and wisdom (Koltko-Rivera, 2006).

Table 2: A Rectified Version of Maslow's Hierarchy of Needs

Motivational level	Description of person at this level
Self-transcendence	Seeks to further cause beyond the self and to experience a communion beyond the boundaries of the self through peak experience.
Self-actualization	Seeks fulfillment personal potential.
Esteem needs	Seeks esteem through recognition or achievement.
Belongingness and love needs	Seeks affiliation with a group.
Safety needs	Seeks security though order and law.
Physiological (survival) needs	Seeks to obtain the basic necessities of life.

Table 2 is remade by the author and is edited from Mark, Koltko-Rivera (2006). Rediscovering the later version of Maslow's hierarchy of needs: Self-transcendence and opportunities for theory, research, and unification. Review of General Psychology, 10(4), 302-317, P.303 cited by Venter, Henry & Venter, E. (2010)

In addition, Schwartz (2012) identifies ten basic personal values from a circular structure that reflects the motivations each value expresses the conflicts and compatibility among the ten values (Figure 1) that helps explain different modes of behavior.

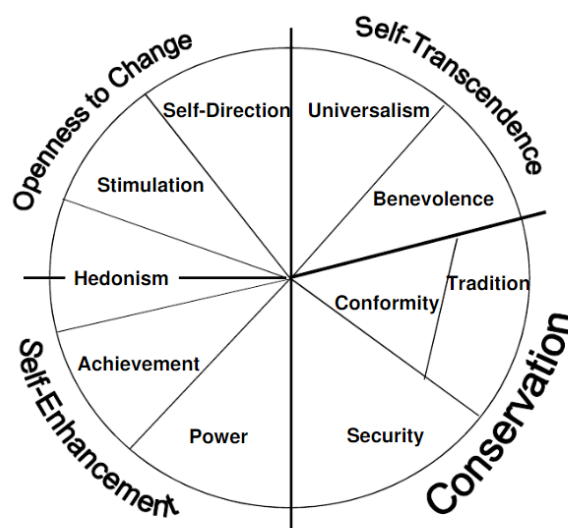


Figure 1. Theoretical model of relations among ten motivational types of value Retrieved from Figure Schwartz, S. H. (2012). An Overview of the Schwartz theory of Basic Values. p.9

Narrative Analysis

Two kinds of most Popular Movies: Box office of a nation's movie market and local movies in the global market are measured. In this study, the former is measured as the highest-grossing films in Japanese box office; in contrast, the latter is the highest-grossing Japanese films in global box office. In total, 20 movies are collected and finally only 11 movies were analyzed in this study after the author deleted the repetitive Korean films and Hollywood films, the values of which are not the interest of this study. The seven movies are selected as the highest-grossing films in Japanese box office in order: *Demon Slayer: Mugen Train*, *Spirited Away*, *Your Name*, *One Piece Film: Red*, *Princess Mononoke*, *Howl's Moving Castle*, and *Bayside Shakedown 2*. Another five movies are added to be analyzed in this study as they

are listed as the Top 10 highest-grossing Japanese films in global box office: *Suzume*, *The First Slam Dunk*, *Ponyo*, *Jujutsu Kaisen 0*, and *Weathering with You*. These 11 movies are considered the text selected by Japanese or by global moviegoers who appreciated public humanism reflected in Japanese movies.

Three Hollywood movies are in the Top 10 box office in the Japanese movie markets: *Titanic*, *Frozen*, and *Red*, *Harry Potter and the Philosopher's Stone*. Two out of three Hollywood movies are in the genre of fantasy and the other is in the genre of disaster (Please see Table below). Humanism values, civility, and civic virtue are used as the structure to analyze the 11 movies listed as the context of most popular Japanese movies. Schwartz's theoretical model of relations among ten motivational types of value are applied to this study.

Table 3: Movies analyzed as the most popular movies in this research

Highest-grossing films in Japan		Highest-grossing Japanese films	
Demon Slayer: Mugen Train	2020	Demon Slayer: Mugen Train	2020
Spirited Away	2001	Spirited Away	2001
Titanic	1997	Your Name	2016
Frozen	2014	Suzume	2022
Your Name	2016	The First Slam Dunk	2022
One Piece Film: Red	2022	One Piece Film: Red	2022
Harry Potter and the Philosopher's Stone	2001	Howl's Moving Castle	2004
Princess Mononoke	1997	Ponyo	2008
Howl's Moving Castle	2004	Jujutsu Kaisen 0	2021
<i>Bayside Shakedown 2</i>	2003	Weathering with You	2019

Notes: Movies in the gray highlighted cells are from Hollywood production. Names of Movies with bold-faced characters are not in the genre of fantasy. The Name of a movie in italics is the only live-action movie. Years are listed as when a movie was released in Japanese movie theaters.

Table 4: Analysis of heroes from movie genres, crises, values as a means to an end/ motivational types

Movie name	Movie Genre	Crises protagonists facing	Action of protagonists	Values of protagonists
<i>Demon Slayer: Mugen Train</i>	Animated dark fantasy action	The demon king makes strong ghosts to kill humans	The team of Demon Slayers has a hope of killing the demon king since two adolescents' special fates	1. Self-transcendence: universalism/ benevolence 2. Conservation: Safety/Tradition 3. Self-enhancement: achievement/ power 4. Openness to change: self-direction, stimulation
<i>Spirited Away</i>	Animated fantasy	A kid tries to save her parents when they are turned into pigs by a witch.	A 10-years-old girl encounters spirits and witches but wins her parents back with perseverance.	1. Transcendence of selfish interests as for spirits, friends, colleagues. 2. Openness to change: self-direction, stimulation
<i>Your Name</i>	Animated romantic fantasy	Two high schoolers swapped their bodies and one of them found the other was dead years ago	A high school male student saves his lover through time travel but forgets her name.	1. Benevolence and tradition--devotion to his lover 2. Openness to change: self-direction, stimulation
<i>Suzume</i>	Animated coming-of-age fantasy adventure	Supernatural worms cause earthquakes after being released.	Suzume refuses to let the one she loves to sacrifice himself by turning a keystone.	1. Self-transcendence: universalism/ benevolence 2. Conservation: Safety/Tradition 3. Benevolence and tradition--devotion to his lover
<i>The First Slam Dunk</i>	Animated sports	A high school basketball team tries to win a national championship with only a slim chance.	The team won a semifinal as the most glory moment they ever have	1. Power and achievement--social superiority and esteem 2. Stimulation and self-direction--intrinsic interest in novelty and mastery

<i>One Piece Film: Red</i>	Animated musical fantasy action-adventure	An idol singer tries to save her fans in miseries by trapping them in her world forever.	Disastrous results caused by pirates, troops, and the singer but later her fathers and friends save her and she and her father repair their relationship.	1. Hedonism and stimulation--a desire for affectively pleasant arousal; stimulation and self-direction--intrinsic interest in novelty and mastery 2. Power and achievement--social superiority and esteem
<i>Howl's Moving Castle</i>	Animated fantasy film	A young milliner cursed to become an elderly woman but encounters a wizard, Howl, who traded his heart with a demon.	The milliner saves the handsome wizard by lifting the curse on him.	1. Benevolence and tradition--devotion to one's in-group 2. Self-transcendence: universalism/benevolence 3. Conservation: Safety/Tradition
<i>Ponyo</i>	Animated fantasy film	Identity crisis as a goldfish desires to become a human girl	A five-years-old boy gives a promise to take care a goldfish who later turns into a human.	1. Benevolence and tradition--devotion to one's in-group 2. Universalism and benevolence--enhancement of others and transcendence of selfish interests
<i>Jujutsu Kaisen 0</i>	Animated dark fantasy	Crisis of curses killing humans	A young sorcerer promises himself as a sacrifice to Rika, a cursed spirit and finally kills another evil sorcerer.	1. Power and achievement--social superiority and esteem 2. Stimulation and self-direction--intrinsic interest in novelty and mastery 3. Benevolence and tradition--devotion to one's in-group 4. Universalism and benevolence--enhancement of others and transcendence of selfish interests
<i>Bayside Shakedown 2</i>	Crime comedy	a passionate detective fights with the bureaucratic culture	Refusing to be merged into this red tape culture through the eyes of a detective	1. Self-direction and universalism--reliance upon one's own judgment and comfort with the diversity of existence 2. Universalism and benevolence--enhancement of others and transcendence of selfish interests;

Findings

This paper conducts a narrative analysis of the top 10 most popular Japanese films, revealing trends in storytelling under the dominance of fantasy backgrounds and animated film genres. The analysis unveils the following narrative trends: Japanese youth facing extreme and surreal challenges exhibit passionate pursuit and uphold the ideals of righteousness and beauty in adversity, becoming a prominent feature of Japan's most popular films.

Among these, the concept of the virtue of transcendence helps protagonists interact and collaborate with spirit, ghosts, divines, and animals in alien realms to beat evil. The youthful protagonists, compared to secular adults, exhibit a more open mindset, embracing diverse backgrounds, transcending ideologies, accepting different identities and appearances, and upholding the humanistic values of compassion, dignity, goodness, and the pursuit of truth. These narratives have been touching hearts of fans in Japan and worldwide, offering storylines that comforting experiences of mishaps such as prejudices, discrimination, natural disasters, pollution, class divisions, suffering, resentment, and loneliness.

These healing narratives present a dual melody of the value of transcendence and humanistic resilience in rhythm. The 11 movies all reflect the ideas of humanism which usually contain not only instrumental values but also terminal values. This implies that the spirit of most popular movies in Japan is not applied to mass society theory which usually considers the audience as victims of the media which implies the negative impact to the society.

Ten out of the 11 movies are animated except for *Bayside Shakedown 2* with a strong style of satire with its origin of a TV drama. Nine of the 11 movies are in the genre of fantasy with two exceptions *Bayside Shakedown 2* and *The First Slam Dunk*. All main protagonists are young people, teenagers or even children as in *Ponyo*. Four movies (*Spirited Away*, *Princess Mononoke*, *Howl's Moving Castle*, and *Ponyo*) were directed by Hayao Miyazaki, and three (*Your Name*, *Suzume*, and *Weathering with You*) were directed by Makoto Shinkai. Both directors are anime masters and they explain 7 out of 11 most popular movies in Japan.

With other two talented young people portrayed as the ones who want to change the world but start to constrain (*One Piece Film: Red*) or to kill people (*Jujutsu Kaisen 0*) with endings in which their family and friends stop the crises. The top one title belongs to *Demon Slayer: Mugen Train* breaking many records in Japanese and global movie markets. Except *Bayside Shakedown 2* as a satire, live-action movie and *Ponyo* as a movie for children, all other 9 movies have made their fans touched or cried.

Conclusions

The results show it is possible that the box office of a nation's movie market can be regarded as a way to reward civic and social virtues by the public as consumers and later the public as consumers may push their local movies in international markets to share their values globally. Through narrative analysis, the meanings of most popular movies are able to convey public connotations. These healing narratives present a unique worldview of Japan: a dual melody of the value of transcendence and humanistic resilience in rhythm.

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***Confronting the Ephemeral: The Crystal-Image of the Present Moment in
Hong Sang-soo's Recent Films***

Viraporn Kitikunkamjorn, Bangkok University, Thailand

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

Hong Sang-soo's minimalist films, known for their non-linearity, slow pace, and everyday settings, delve into the complexities of memory, time, and mortality. For this paper, I would like to explore how Hong Sang-soo articulates the elusive concept of the present moment in his films, focusing on three recent works: *In Front of Your Face* (2021), *In Water* (2023), and *In Our Day* (2023). Drawing on Gilles Deleuze's concept of the "crystal-image", this paper will analyze how Hong Sang-soo's stylistic choices, including long takes, static framing, and fragmented narratives, create a cinematic experience that confronts the audience with the present moment. Through these techniques, Hong constructs a cinematic space where multiple temporalities coexist, fracturing the linear flow of time. By engaging with Deleuze's ideas, this paper argues that these films offer a unique experience of the present, not as a singular point, but as a multifaceted and dynamic encounter with the interplay of past, present, and possibility, to wit: past memories, fleeting encounters, and the uncertainty of the future. Through this analysis, we gain a deeper understanding of Hong Sang-soo's artistic vision and his ability to invite viewers into a contemplative engagement with the immediacy of existence.

Keywords: Hong Sang-soo, Crystal-Image, Temporalities, Cinematic Experience

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Introduction

Hong Sang-soo's films are a unique blend of minimalism and profundity. His stripped-down aesthetic, characterized by long, static takes, repetitive scenarios, and a focus on the mundane details of everyday life, often belies the rich emotional and philosophical depths his films explore. Conversations in cafes, chance encounters, and the consumption of soju are recurring motifs that, through repetition and subtle variation, reveal the complexities of human relationships, memory, and the passage of time.

One of the most intriguing characteristics of Hong Sang-soo's films is their ability to offer an experience rather than simply telling a story. This paper explores how Hong articulates the elusive concept of the present moment in his films, focusing on his recent works. Utilizing Gilles Deleuze's concept of the "crystal-image," this paper examines how Hong's stylistic choices and themes create a cinematic experience that confronts the audience with the present moment.

Deleuze's Crystal-Image Concept

Gilles Deleuze's concept of the crystal-image fundamentally transforms the viewer's experience of time in cinema. Traditional pre-World War II films often presented time as linear and rational, subservient to the spatial logic of action and movement. This mode of representation created a coherent, continuous narrative that aligned with a classical, clock-based understanding of time (Deleuze, 2002).

In the postwar era, Deleuze argues that our experience of time became more fractured and complex, influenced by the trauma and disorientation of the period. The crystal-image reflects this new temporal experience, encapsulating moments where the past (the virtual) and the present (the actual) are intertwined to the point of being indistinguishable. This creates a multifaceted, almost kaleidoscopic view of time that challenges the viewer's perception and understanding (Deleuze, 1989; Rodowick, 1997).

Encountering a crystal-image means engaging with a cinematic representation where memory, perception, and imagination are seamlessly blended. This effect is achieved through various cinematic techniques, such as non-linear narratives, fragmented editing, and the use of optical and sound images that do not merely signify external meanings but instead form a self-contained world within the film (Deleuze, 1989). For instance, in Alain Resnais's *Hiroshima mon amour*, scenes shift fluidly between a character's memories and current experiences, creating a disorienting yet immersive experience that mirrors the complexity of human consciousness and memory (Rodowick, 1997).

The crystal-image disrupts classical narratives' conventional cause-and-effect logic. Instead, it presents time as a continuous flow where the boundaries between different temporal moments are blurred. This aligns with Deleuze's interpretation of Henri Bergson's philosophy, which views time as duration (*la durée*), an unbroken and indivisible process (Deleuze, 1989). By breaking down the clear distinction between past and present, the crystal-image allows viewers to experience a form of temporal coexistence. This experience can evoke a sense of *déjà vu* or a profound connection to the characters' inner lives, as viewers are not just observing a sequence of events but are immersed in a temporal atmosphere where past and present resonate and reflect each other (Rodowick, 1997).

Overall, Deleuze's concept of the crystal-image transforms the viewer's experience of time in cinema, making it more reflective of the complex, non-linear, and intertwined nature of real-life temporal experiences. This cinematic approach challenges viewers to rethink their perceptions of time and memory, engaging them in a deeper, more contemplative viewing experience (Deleuze, 2000).

Temporal Experience in *In Front of Your Face* (2021)

Hong Sang-soo's *In Front of Your Face* is a poignant exploration of time, memory, and perception. The film's narrative structure and visual style create a temporal experience that aligns with Deleuze's concept of the crystal-image. *In Front of Your Face* follows Sang-ok, a middle-aged former actress who has returned to South Korea after spending many years in the United States. She is staying with her sister, Jeong-ok, and the film explores her interactions and experiences over the course of a single day.

Present and Immediate Experience

The present in the film is experienced through the protagonist Sang-ok's interactions and sensory perceptions. For instance, the extended scenes of Sang-ok walking with her sister Jeong-ok or sitting in a café with Jae-won employ long takes and minimal cuts. This technique immerses the viewer in the continuous flow of the present moment, reflecting Deleuze's idea of Bergsonian duration, where time is an unbroken flow (Deleuze, 2000). These moments of unedited continuity create an experience akin to Henri Bergson's concept of *durée*, which Deleuze uses to describe a form of temporality that resists fragmentation and emphasizes continuity and change (Bergson, 1911).

Sang-ok's encounters and conversations are also characterized by a sense of immediacy and presence. The camera often holds on the characters' faces, capturing subtle expressions and gestures that convey the nuances of their emotional states and inner experiences. This visual and narrative approach allows the viewer to engage with the present moment alongside the characters, fostering a heightened sense of awareness and connectedness with the unfolding events (Martin-Jones, 2007).

Intertwined Temporality and Memory

While the film's emphasis on the immediate present is prominent, *In Front of Your Face* also explores the interweaving of past and present through Sang-ok's memories and reflections. Sang-ok's recollections of her past career as an actress and her relationship with her sister are woven throughout the film, creating a temporal palimpsest where the past constantly informs the present.

The past in *In Front of Your Face* is not presented through conventional flashbacks but is evoked through dialogue and reflections. Sang-ok's memories surface organically in her conversations, illustrating how the past continuously informs and reshapes her present experience. This method aligns with the crystal-image's duality, where the past is always interwoven with the present (Deleuze, 2000). This technique can be seen in films discussed by David Rodowick, who highlights how memory and perception intermingle in modern cinema, allowing the past to become an active, living presence within the present (Rodowick, 1997).



Figure 1: Reflection in the Park

While walking in the park with Jeong-ok, Sang-ok reminisces about her past life and career. The park serves as a reflective space, both literally and metaphorically. As they converse, the serene environment and natural reflections (e.g., in the water) visually represent the merging of past and present. This scene embodies the duality and reflection characteristic of the crystal-image, where the physical act of walking through the park is layered with the internal journey through memory (Deleuze, 2000). Such scenes echo the techniques described by Laura U. Marks in her analysis of "haptic visuality," where the visual and the tactile merge to evoke a deeper sensory and emotional response (Marks, 2000).

Future and Anticipation

The future in the film is hinted at through Sang-ok's aspirations and fears, particularly her contemplation of her terminal illness. This anticipation is not linear but intertwined with her present state and past memories, creating a sense of indeterminate temporality. This non-linear approach to temporality is a hallmark of the crystal-image, as described by Deleuze, where the boundaries between past, present, and future are blurred, creating a continuous temporal flow (Deleuze, 2000).



Figure 2: Evening Conversation with Jae-won

In the evening, as Sang-ok and Jae-won continue their conversation over drinks, Sang-ok reveals her terminal illness. This revelation brings a new layer to their interaction, where the future's uncertainty casts a shadow over the present moment. The scene's melancholic tone and introspective dialogue highlight the interplay of past memories, present realities, and future uncertainties, epitomizing Deleuze's concept of indiscernibility, where different

temporal layers are indistinguishable (Deleuze, 2000). This blending of temporalities aligns with theories on cinematic time, such as those discussed by Mary Ann Doane, who explores how cinema can manipulate and represent different temporal experiences (Doane, 2002).

In Front of Your Face exemplifies Deleuze's crystal-image through its intricate portrayal of time. The film's narrative and stylistic elements create a complex temporal experience where the past, present, and future are interwoven and reflective. By invoking memory, perception, and anticipation, Hong Sang-soo's *In Front of Your Face* engages the viewer in a contemplative exploration of the ephemeral nature of the present moment and the fluidity of time (Hibberd & Beugnet, 2022).

Narrative Structure and Temporal Fluidity in *In Our Day* (2023)

Hong Sang-soo's film *In Our Day* continues his exploration of human relationships and the passage of time, employing his signature narrative techniques of fragmented timelines and parallel stories. The film is structured around two interwoven storylines that reflect the experiences of two characters at different stages of their lives, exploring themes of memory, identity, and the flow of time. The film's structure, which intercuts between the younger and older versions of the protagonists, creates a disruption of linear chronology. This non-linear approach to time mirrors the way memories and recollections often surface in the present, blurring the boundaries between past and present.

Storyline 1: The Elder Artist. An aging artist reflects on his past while facing present challenges, such as creative blocks and regrets about past relationships. His interactions with a young admirer reveal his contemplation of mortality and how his memories continuously shape his current identity. This storyline underscores the artist's internal struggle between his past achievements and present stagnation, highlighting how memory and identity are inextricably linked (Deleuze, 2000).

Storyline 2: The Young Woman. A young woman at a life crossroads faces societal pressures and personal aspirations. Her encounters with friends and family highlight the uncertainty and fluidity of youth, blending discussions about the future with reflections on past decisions. This storyline emphasizes the formative nature of experiences and how the anticipation of the future is often colored by past choices and regrets (Marks, 2000).

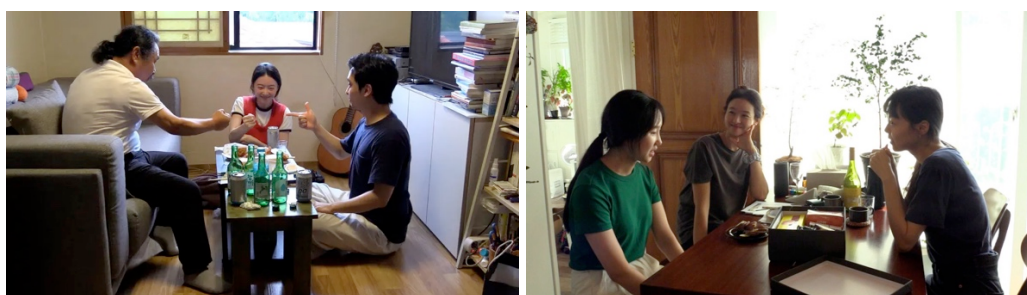


Figure 3: Juxtaposition of the elder artist and the young woman scene

In Our Day employs a dual narrative structure that follows two interwoven storylines: an elder artist reflecting on his past and a young woman navigating her present. This structure allows for a continuous dialogue between different temporal perspectives, emphasizing the cyclical nature of life. The elder artist's memories and regrets are juxtaposed with the young woman's aspirations and uncertainties, creating a dynamic interplay between past experiences

and present realities. This narrative approach reflects David Bordwell's (1985) theory of cognitive film studies, which suggests that films can manipulate temporal structures to reflect the subjective experience of time. By intercutting between the two storylines, Hong Sang-soo creates a sense of temporal fluidity, where the past is not a distant memory but an active, living presence that shapes the characters' present experiences.

In *In Our Day*, dialogue plays a crucial role in blending past and present. Characters often reflect on their past experiences during conversations, seamlessly integrating memories into the present narrative. For instance, the elder artist's discussions with his young admirer frequently trigger reflections on his past achievements and failures. These reflections are not presented as separate flashbacks but are woven into the ongoing dialogue, creating a continuous temporal flow. This technique aligns with Laura U. Marks's (2000) concept of haptic visuality, where the sensory and emotional qualities of memory are vividly brought to life through film. By integrating past reflections into present conversations, Hong Sang-soo creates a haptic experience that allows viewers to feel the weight of the characters' memories. This approach enhances the film's immersive quality, inviting viewers to engage deeply with the characters' internal landscapes.

Hong Sang-soo's use of cinematic techniques further reinforces the blending of past and present. Long takes, static framing, and naturalistic dialogue immerse viewers in the characters' present moments while simultaneously evoking their past experiences. These techniques create a temporal atmosphere where the boundaries between past and present are blurred, embodying Deleuze's concept of the crystal-image.

In one scene, the elder artist and his young admirer discuss his past work. As the artist speaks, the film transitions seamlessly into visual and auditory flashbacks of his creative process and past relationships. These flashbacks are interwoven with the present dialogue, illustrating Deleuze's notion that the actual and virtual coexist and reflect each other within the crystal-image (Deleuze, 2000).

The seamless integration of memories into the present narrative in *In Our Day* reflects the characters' internal landscapes, offering a nuanced depiction of time and memory. This approach aligns with Mary Ann Doane's (2002) exploration of cinematic time, which emphasizes how films can manipulate temporal structures to reflect psychological and emotional states.

By blending past and present, *In Our Day* invites viewers to experience time as a fluid process, where memories are not isolated events but integral parts of the present moment. This blending challenges conventional linear narratives, offering a more complex and realistic portrayal of human consciousness and memory. The film's narrative and stylistic elements create a contemplative space for viewers to appreciate the intricate interplay of temporalities that define each moment.

Hong Sang-soo's *In Our Day* exemplifies the blending of past and present through its narrative structure, dialogue, and cinematic techniques. By employing a dual narrative and integrating memories into the present dialogue, Hong creates a film that reflects Deleuze's concept of the crystal-image, where the actual and virtual coexist in a continuous temporal flow. This approach enhances the film's immersive quality, inviting viewers to engage deeply with the characters' internal landscapes and appreciate the complex interplay of temporalities that shape human experience.

Temporal Experience in *In Water* (2023)

In Water is a 2023 film by South Korean director Hong Sang-soo that follows a young man, Seon-woo, who travels to a small coastal town to scout locations for a movie he plans to make. Accompanied by his friends, Ji-yeong and Seung-jun, Seon-woo spends his days exploring the picturesque surroundings, discussing their creative ambitions, and reflecting on their lives and relationships. The narrative is characterized by its minimalist style, a hallmark of Hong Sang-soo's work. The interactions between the characters are naturalistic, often unfolding in long, static takes that capture the subtleties of their conversations and emotions. The film's contemplative pace allows for a deep exploration of the characters' inner worlds, highlighting themes of artistic struggle, the passage of time, and the complexity of human connections (Marks, 2000). As the story progresses, Seon-woo's vision for his film becomes intertwined with his personal journey, blurring the lines between reality and imagination. The serene coastal landscape serves as a backdrop for moments of introspection and quiet revelation, emphasizing the film's meditative quality (Deleuze, 2000).

Present, Past, and Future in *In Water*

Hong Sang-soo's *In Water* effectively creates the crystal-image by integrating the characters' present actions and conversations with their memories and future aspirations. This integration can be observed in various scenes throughout the film.

The Present: In "Water," the concept of the present is conveyed through the everyday interactions of Seon-woo, Ji-yeong, and Seung-jun as they explore the coastal town. Drawing on Deleuze's (2000) notion of the time-image, the film's long, static takes and naturalistic dialogue create a sense of immediacy and presence, immersing the audience in the characters' experiences. A prime example of this is the seaside conversation scene, where the camera lingers on the characters as they discuss their film project. The deliberate pacing and unhurried framing allow the audience to fully inhabit the scene, to experience the present moment alongside the characters. This aligns with Vivian Sobchack's (1992) phenomenological approach, which emphasizes the embodied nature of film viewing. By eschewing traditional narrative techniques in favor of a more observational style, "Water" invites the audience to engage with the film not merely as a story, but as a sensory experience, a lived moment in time.



Figure 4: Seaside conversation

This focus on the present also resonates with Laura Marks' (2000) concept of haptic visuality, which suggests that films can engage the viewer's sense of touch through visual cues. In the

seaside scene, the gentle lapping of waves, the warm sunlight on the characters' faces, and the rustling of leaves in the wind all contribute to a tactile experience, further grounding the audience in the present moment. By prioritizing sensory immersion over narrative momentum, "Water" creates a cinematic experience that is both immediate and enduring.

The Past: The portrayal of memory in *In Water* resonates with Henri Bergson's concept of *durée*, which describes time as a continuous flow. Memories dynamically interact with present perceptions (Bergson, 1911), a key aspect of Deleuze's crystal-image. Instead of using traditional flashbacks, the film uses dialogue and character interactions to evoke memories, creating a continuous temporal flow that mirrors real-life reminiscence (Bordwell, 1985).

A notable scene illustrating this technique occurs when Seon-woo discusses his new film project. He recalls a previous project that failed, and the dialogue fluidly transitions between his past disappointment and present aspirations. This merging of past and present exemplifies the crystal-image, where memories are integral to the current experience (Rodowick, 1997). Laura U. Marks' concept of haptic visuality (Marks, 2000) supports this, suggesting that film can evoke the sensory and emotional qualities of memory. The naturalistic dialogue and intimate cinematography in *In Water* create a haptic experience, allowing viewers to feel the weight of Seon-woo's memories.

Vivian Sobchack's phenomenological approach posits that cinema is an embodied experience (Sobchack, 1992). In *In Water*, memories are woven into the present narrative, engaging viewers in a reflective process that invites them to consider how their past influences their current perceptions. Mary Ann Doane (2002) highlights that films can manipulate temporal structures to reflect psychological states. In *In Water*, the seamless integration of memories into the present mirrors the characters' internal landscapes, offering a nuanced depiction of time and memory. By blending past and present, *In Water* exemplifies the concept of film as an experiential medium. It invites viewers to experience time as a fluid process where memories actively shape the present. This approach aligns with theories of sensory cinema and phenomenology, demonstrating how film can engage viewers on multiple sensory and emotional levels.

The Future: The future in *In Water* is suggested through the characters' plans and dreams, particularly Seon-woo's envisioned film. The act of scouting locations and discussing potential storylines embodies their hopes and uncertainties about the future. A scene that encapsulates this is when Seon-woo and his friends imagine different scenarios for the film they intend to make. They discuss various possibilities, blending their current creative process with future projections. This discussion creates a virtual layer of future possibilities that coexist with the present, highlighting the crystal-image's interplay of actual and virtual (Doane, 2002).

In Water exemplifies Deleuze's crystal-image through its intricate portrayal of time. The film's narrative and stylistic elements create a complex temporal experience where the past, present, and future are interwoven and reflective. By employing a minimalist style and focusing on naturalistic interactions, Hong Sang-soo captures the fluidity of time and the complexity of human experience, providing a contemplative viewing experience that resonates with Deleuze's philosophical insights on cinema.

Conclusion

Hong Sang-soo's films present a profound exploration of the ephemeral nature of existence through his distinct stylistic choices and thematic focus. By employing long takes, zooms, naturalistic dialogue, and narrative repetition, Hong creates a cinematic experience that immerses the audience in the complexities and layers of real life. These techniques capture the fluidity of the present moment, enabling viewers to experience both the actual and the virtual simultaneously. This approach not only heightens the audience's awareness of the present but also invites them to reflect on its richness and transience.

Through this method, Hong's films embody Gilles Deleuze's concept of the crystal-image. By presenting a layered, multifaceted depiction of time, where the present moment becomes a dynamic intersection of past, present, and future, Hong challenges traditional cinematic narratives. His films dissolve the clear distinctions between different temporalities, creating a continuous temporal flow that resonates with the audience's own experiences of time and memory.

The seamless integration of past memories and present realities, as well as the anticipation of future possibilities, invites viewers to engage deeply with the immediacy of existence. This intricate interplay of temporalities, where past influences present and future aspirations are woven into current experiences, offers a more holistic and realistic portrayal of human consciousness and memory. By doing so, Hong's films provide a contemplative space for viewers to appreciate the transient beauty of each moment.

In conclusion, Hong Sang-soo's cinematic articulation through the crystal-image serves as a powerful tool for confronting the ephemeral nature of life. His films depict the fluidity and complexity of time and encourage a deeper engagement with the present moment. This approach aligns with contemporary theories of sensory cinema and phenomenology, demonstrating how film can profoundly engage viewers on multiple sensory and emotional levels. Through his unique cinematic language, Hong Sang-soo challenges viewers to embrace the immediacy of existence, fostering a deeper appreciation for the intricate tapestry of temporal experiences that define human life.

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Contact email: viraporn.k@bu.ac.th

Utilizing the Aesthetic Properties of Felt Fabric as an Entry for Enriching Students' Skills in the Fashion Accessories Course

Rehab Ragab Mahmoud Hassaan, University of Nizwa, Oman

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

The study aims to develop the students' skills in the Fashion Accessories Course by recruiting the various aesthetic properties of felt fabric. Innovative designs were created with different inspiration themes to produce a variety of fashion accessories, including necklaces, handbags, hats, and slippers. The study follows the experimental development method, the study identifies the felt fabric: its manufacture and properties, extracting the aesthetics and technical methods of felt. The experiment was conducted on a sample of students in the Fashion Design Program at the University of Nizwa, Fall and Spring semesters 23/2024. Through the study, the students applied different topics, for example a women's handbag inspired by a modern art painting, and contemporary necklaces inspired by Omani traditional motifs, the designs adopted an unconventional style. The products of the experiment's students are analyzed in terms of achieving the aesthetic values through the design elements and principles, in addition achieving the utilitarian function. The students' opinions are measured after the experiment ends. The significance of the study is to enable students to develop their creative abilities in knowledge, skills and values to implement products with remarkable designs with precise techniques that can be produced and marketed widely as entrepreneurship projects. The study recommends investing in college courses, especially design programs, in enriching students' innovative thinking to produce functional artistic products that meet the needs of the labor market, and conducting more innovative developmental experiments for students in the Fashion Design Program at the University of Nizwa.

Keywords: Felt Fabric, Fashion Accessories, Students' Skills, Creative Abilities, Plastic Formulations, Handcrafts

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Introduction

Material:

Through nature and properties, materials provide great plasticity possibilities through the diversity of different shapes and textures. Also, through its artistic formulation, which means the artist's attempt to create artistic works based on employing innovative thought that depends on finding plastic solutions and alternatives which achieve new innovative products. The creative person can find new ways to complete artistic works. Creativity is a method of purposeful thinking, through which the artist seeks to discover serious relationships and arrive at innovative plastic solutions. To achieve innovative work: It is necessary to find good material with flexible and wide plastic specifications. Examples of these materials are felt.

Human Relationship With Decorative Objects:

Human's relationship with decorative accessories began as a means of achieving essential needs and purposes, just as primitive man considered them amulets that brought him benefit and protected him from dangers. Human needs have graduated to become (the aesthetic aspect) a basic human need. Aesthetic needs also combined with functional and utilitarian needs which made human motives for decorating him/herself and the place remain until today in all human societies. The techniques used by the artist are varied to be able to formulate the materials in the best form, and with the widest scale for producing distinguished works of art with successful aesthetics.

Problem

1. How can the creative abilities of students in the "Fashion Accessories" course be utilized in producing fashion accessories?
2. To what extent is it possible to use felt material in designing and producing artworks as women fashion accessories?

Objectives

1. Developing the innovative capabilities of students in the "Fashion Accessories" course through experimental samples.
2. Taking advantage of the various plastic formulations and possible techniques for shaping felt material with the aim of producing innovative fashion crafts.
3. Directing the products to an entrepreneurship project that uses available cheap, sustainable materials, such as felt fabric, to produce fashion accessories as a small entrepreneurship project.

Significance

1. Connecting the student to how to achieve artistic and expressive formulations in a way that develops his/her creative and innovative abilities.
2. Introducing the students of the "Fashion Accessories" course to the felt material, and the artistic treatments that can be performed to produce many innovative ideas for artistic works that are suitable as women accessories.
3. Enhancing artistic practices with methods and techniques that help in producing artistic artifacts, such as accessories items (handbags- necklaces...), that are low in cost and compatible with public taste.

4. The study achieves the indicators of the Oman Vision 2040 in terms of its keenness to develop: Innovation - environmental performance - and skills development.
5. The results of the study represent the seed of a small or micro entrepreneurship project for entrepreneurship with environmentally sustainable products.

Hypotheses

- The creative abilities of students in the “Fashion Accessories” course can be employed to produce distinctive decorative accessories.
- Many aesthetic techniques can be applied to felt to design and produce distinctive artistic crafts.

Methodology

The paper follows the experimental development approach through the practical framework. This paper addresses four main axes, as follows:

- The first axis: Creative education for female students in the “Fashion Accessories” course.
- The second axis: Felt material and its uses.
- Third axis: Handmade Fashion accessories.
- Fourth Axis: Applied experiment (Material Techniques – Artworks Analysis).

Literature Review

The study (Abdul Rahman, 2023) oriented to create artistic artifacts with a utilitarian function based on some technical methods for natural leather materials, investing the products in a small entrepreneurial project. Al Sakhawy (2020) presented a set of artistic proposals for decorating the women’s shawl through the felting technique. The study showed the properties of wool fibers, where the scales intertwine in the fine fibers, under pressure, temperature, and water, the filaments sometimes overlap and form a cohesive piece, from which it is difficult to separate the fibers, but they are characterized by flexibility and elasticity. The current research has benefited from the study applications through identifying the properties of felt and the manufacturing method.

Shaker, and others (2020) They presented in detail the properties of non-woven materials, as they employed the manual felting method in proposing innovative designs for textile hangings. Non-woven fabrics were defined, and the felt material is the focus of the current research. It does not depend on the warp and weft method of weaving, which is the traditional method. Rather, it is a assembling of natural or artificial hairs, short or long, that are held together by mechanical or chemical methods, and therefore felt fabrics do not go through the weaving stage. The study also addressed the definition of ancient and modern felting methods, as the felting method is considered the oldest method for making fabrics before weaving on looms. Artistic felting was presented in detail and applied to the production of artworks using wet felting and dry felting. This study benefited the researcher in identifying the technical properties of felt, the various possibilities of artistic formation and some of the techniques that can be utilized.

Al Abd, (2019) and Dyab, and others (2024) They presented applied experiments to benefit from the felt material and the felting method in enriching the aesthetic values of clothing and artefacts, different plastic techniques were used in the two studies.

Although Al-Abd's study focused on the use of felt in post-modern arts and the art of installation particular, the study of Diab, and others came to embellish women's clothing by adding felt decorations to ready-made clothes, some using the dry felting method and some using the wet felting method, and the study concluded that Dry felting is less expensive and effortless, while wet felting is more artistic and creative.

The current research benefited from the two studies in identifying the properties of felt and its artistic formulations potentials.

1) Felt Components and Manufacturing Method (Wool Fibers)

Felt is formed from wool filaments, which are characterized by flexibility and the ability to elongate 30%. Its degree of flexibility increases with hot water, and then it can be adapted to the desired shape, and after drying it maintains its new shape.

Wool is also characterized by its durability and high physical and chemical endurance.

One of the most important properties that helped the material in the process of artistic formation is the felting property on which the felt material is based, which is the consistency of fine hairs if they are exposed to pressure and heat. Wool can also absorb 30% without appearing wet. It has excellent thermal insulation properties, and its natural colors in addition. Its good ability to dye, its luster and elegant appearance are properties that allow wool to be one of the distinguished materials in artistic forming (Al Sakhawy, 2020).

Artistic Techniques: Technique is the artist's ability to shape materials appropriately, and it is the ability to use tools so that they achieve their purpose (Reda, 2023).

Felt is a non-woven material made of wool fibers. This composition gives the felt good shaping properties. It is a non-edge fraying material and has good elasticity that helps it take shape. Its surface also allows for many technical treatments in relation to the process of felting, which is the basis for the manufacturing of the material.

Examples of unlimited plastic techniques for felt materials include painting, braiding, inlaying, appliqué, embroidery, braiding, weaving, adding materials, felting, quilting, ruching, patchwork, tucks, trapunto and paper manipulating as fringing, winding, scalloped edges and curling.

Aesthetic values: Beauty is a value whose standards vary based on the cultural factor from one society to another, and plastic artists consider aesthetic values to be the combination of artistic principles and expressive value.

Felt Manufacturing: In short, felt consists of several layers that are subjected to pressure and heat, as well as water, vibration, and alkaline compounds. Then it dries. The layers of hairs are arranged in one or two perpendicular directions.

2) Handicraft Entrepreneurship Projects

Youth is the basic pillar of society. Paying attention to the human resources of youth is one of the most important components of development. When presenting a model for a small production project, it must be built on scientific and practical foundations to guarantee the

success of the project, especially that opportunities for manual labor have become less with technological progress and the revolution in machine use. Small projects related to the fields of handcrafts, especially when producing fashion accessories such as handbags and jewelry, whose model measurements can be easily identified, this enables students to create projects, which in turn achieve profits and reduce the unemployment rate, and waiting for public or private sector employment.

Training students in handcrafts entrepreneurship projects supports the development of students' knowledge, skills, and values, it prepares them to enter the labor market.

There are three criteria that should be achieved in student training:

Using technical methods in a correct, attractive and sustainable manner, achieving artistic values in the product, and the final appearance of the product is attractive, distinct and is accepted by consumers.

The general objective of establishing small projects is to fill free time in a way that is beneficial, achieve profit, improve the living standard, and achieve independence, especially since the current study experience included many male and female students with special needs, as well as the ability to achieve self-developing, and provide job opportunities.

One of the factors for the small project' success that the researcher took into account while guiding the students in teaching: achieving the function, so the functional aspect was considered in terms of the ability of the products to be cleaned, their compatibility with the lines of the human body, the nature of consumption and also the stability of colors and formation, as well as the compatibility of the society taste. The students produced a high level of finishing' techniques.

3) Fashion Accessories Course (The Experiment)

Fashion Accessories course is one of the major courses in Fine Arts Programs at University of Nizwa, Fashion Design and Jewelry Design Divisions. The course is being taught to normal and special needs students, because of this the researcher/ professor of the course oriented the course product to concentrate on the possibility of establishing entrepreneurship small and micro projects.

The handcrafted work proceeds through a series of sequential steps whose stages sometimes overlap, as follows:

- Determine the purpose of the design, the specific nature of the product, a bag or a necklace, for example.
- Collecting information related to aesthetic problems and design solutions. This stage often begins with choosing a source of inspiration. In the current experiment, inspiration was drawn from three methods: nature, modern art, and traditional Omani folk motifs.
- Analyzing and classifying the information collected by the student, by training the student to analyze the aesthetics of the inspiration in preparation for reformulating this aesthetics in a manner consistent with the nature of the product to be produced.
- Selecting and experimenting with appropriate ideas, and in the case of the current experiment, many artistic techniques were experimented to choose the most appropriate ones with the design parts.

- Presenting ideas to choose the most appropriate one, by having the student identify the best techniques with which to formulate his or her innovative artistic work.
- Choosing the most appropriate materials to achieve the design, in terms of auxiliary materials, and distributing artistic techniques to the design.
- Follow up on continuous improvement and modification during production.

Noting that during implementation, some changes occur as seen by the student/designer in terms of technology, colors, and other elements of the artwork.

4) Students' Artworks Samples



Figure 1: Bow bag

Figure 1 – Student: ABIR KHAMIS SAID AL RUZEIQI

Inspiration: By Picasso painting- cubism

Additives materials: Cotton threads- fabric colors

Techniques: Painting- embroidery- braiding- inner padding/trapunto



Figure 2: Handbag



Figure 3: Water Cover' Bottle

Figure 2 – Student: NOOR AL HUDA MOHAMMED SAID AL ANBURI

Inspiration: Picasso painting- cubism

Additives materials: Satin ribbons - colorful feathers - crystal beads- plastic buttons
 Techniques: Painting - sewing - framing with zigzag machine's stitching- embroidery

Figure 3 – Student: RAYA IBRAHIM SALIM AL ADAWI

Inspiration: Van Gogh painting- expressionism

Additives materials: Crystal beads- silver chains - threads - colors - wire to strengthen

Techniques: Painting - embroidery with threads and crystal beads - three-dimensional modeling/applique



Figure 4 (a): Baggit Handbag

Figure 4 (a) – Student: SOMAIYA HUMAID SALIM AL HAKMANI

Inspiration: Nature- flowers with abstract

Additives materials: Threads- crystal beads- wire – pearls

Techniques: Embroidery with threads and crystal beads - covering the wire with thread' winding - 3D modeling/applique – crochet



Figures 4 (b): Baggit Handbag

Figure 4 (b) – Student: SOMAIYA HUMAID SALIM AL HAKMANI

Inspiration: Nature- abstract-colored flowers

Additives materials: fabric colors

Techniques: painting- 3D appliques- rolling



Figure 5: Laptop Handbag

Figure 5 – Student: AHMED SAID MOHAMMED AL KHATRI

Inspiration: Piet Mondrian painting

Additives materials: Cotton embroidery thread

Techniques: Embroidery- applique



Figure 6: Necklace



Figure 7: Necklace



Figure 6 – Student: ARWA ALI NASSER AL KHAMISI

Inspiration: Omani traditional motifs

Additives materials: Wood strips- cotton and wool thread

Techniques: Waving-embroidery- trapunto- pom pom tassel-braiding

Figure 7– Student: SOMAIYA HUMAID SALIM AL HAKMANI

Inspiration: Omani traditional motifs

Additives materials: pearls- thread

Techniques: Braiding- embroidery- applique-ruching



Figure 8: Necklace



Figure 9: Necklace



Figure 8 – Student: RAYA IBRAHIM SALIM AL ADAWI

Inspiration: Omani traditional motifs

Additives materials: Jute twine- beads- pin clips

Techniques: winding- embroidery- stitching- interlining

Figure 9 – Student: NOOR AL HUDA SAID HUMAID AL JADIDI

Inspiration: Omani traditional motifs

Additives materials: Cotton and wall thread- beads

Techniques: Padding- embroidery- synthetic fibers-crochet



Figure 10: Bag

Figure 10 – Student: MARYAM MADHAFFAR YOUSUF AL GHAILANI

Inspiration: Palestinian struggle- modern art

Additives materials: fabric colors- decorative coins- white muslin fabric

Techniques: Embroidery- applique- painting

Results

1. Students in the “Fashion Accessories” course, Fine Arts Program at the University of Nizwa – Fall & Spring 2024, have creative energies and abilities that can be utilized in the field of artistic works to produce crafts such as women fashion accessories.
2. The felt material has plastic formulations and creative solutions that, through some treatments and techniques, can motivate students to experiment and explore producing creative women accessories.
3. The students’ products are marketable and were displayed in more than one art exhibition in the academic year 23/2024, University of Nizwa exhibition for the nineteenth cultural season - and the exhibition held in the “Oman Across ages” Museum, April 2024.

Recommendations

1. Academics’ keenness in developing students’ creativity through various applied courses and workshops. Creative education in educational institutions is an important direction for promoting the development of innovative skills and creativity that leads young people to the possibility of establishing small projects.
2. Designers and producers pay attention to sustainable and cheap environmental materials to formulate them within creative entries to produce aesthetic artworks.
3. Encouraging and supporting the competent authorities to finance entrepreneurship projects for creative students.
4. Conducting artistic workshops in art colleges for experimentation with materials, the composition and the artistic formulation techniques, which helps in new approaches to artistic work.

Acknowledgements

The author would like to acknowledge University of Nizwa for conducting the experiment since teaching the Fashion Accessories Course in Fall- Spring 2023, and providing the teaching supplies, also the researcher would like to thank the students for their achieving within the course.

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Contact email: rehab.ragab@unizwa.edu.om

***Navigating Well-being and Academic Success:
Insights From University Dormitory Life***

Ngoc-Quang Phan, Thai Binh University of Medicine and Pharmacy, Vietnam
Bao-Ngoc Dang, Vin University, Vietnam
The-Diep Nguyen, Thai Binh University of Medicine and Pharmacy, Vietnam
Trung-Kien Nguyen, Thai Binh University of Medicine and Pharmacy, Vietnam
Tuan-Dat Pham, Thai Binh University of Medicine and Pharmacy, Vietnam
Hoang-Nam Tran, Tokushima University, Japan

The Asian Conference on Arts & Humanities 2024
Official Conference Proceedings

Abstract

University dormitories provide a supportive environment, yet students encounter challenges impacting academic performance and well-being. In 2024, a web survey targeted 288 undergraduates residing in campus dorms in Vietnam. Assessing participants' characteristics, physical attributes, lifestyle patterns, and mental health status (DASS-21) revealed key insights. The findings unveiled an average of 2.9 roommates ($SD = 1.41$), with an average sleep duration of 6.9 hours ($SD = 1.43$) and a bedtime around 11:58 PM ($SD = 1.29$). Handheld device usage averaged 6.4 hours ($SD = 3.47$), and self-study hours averaged 2.9 ($SD = 2.06$). Self-prepared meals and out-campus breakfast were prevalent. The majority abstained from alcohol (62.4%) and tobacco (96.2%). GPA correlated with age, a smaller number of roommates, and self-study hours, with older students and those engaging in more independent study exhibiting higher GPAs. Additionally, students majoring in medicine and those in higher grades tended to have higher GPAs. Blood type was correlated with depression levels. Understanding dormitory challenges, including social dynamics and adjustment issues, is crucial for effective student support. These findings provide valuable insights into lifestyle, academic behaviors, and mental health, informing potential interventions aimed at enhancing student well-being and academic success.

Keywords: University Dormitories, Academic Performance, Well-being, Student Support, Lifestyle Patterns

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Introduction

University dormitories serve as crucial components of the higher education experience, providing students with a unique living environment that fosters academic growth, social interaction, and personal development (Yanni, 2022). However, despite their intended role as supportive communities, dormitories can also present challenges that impact students' overall well-being and academic success (Tajbakhsh & Riahi, 2016). The architecture of the dormitory could influence the behaviors of its residents (Heilweil, 1973). Understanding these challenges and their implications is essential for universities to provide effective support systems and cultivate environments conducive to student flourishing. Numerous studies have explored the various dimensions of university dormitory life, highlighting the complexities and nuances inherent in communal living arrangements. Research has identified factors such as roommate dynamics, sleep patterns, lifestyle habits, and mental health status as influential determinants of students' experiences in dormitories (Moghaddam et al., 2017; Tao et al., 2016). For example, studies have found that the work-life balance of students living in dormitory is lower than students living outside, which can significantly impact students' overall satisfaction with academic life and their academic performance (Shojaei et al., 2022). Similarly, research has shown a conflict amidst roommates negatively influenced their lifestyle and academic success (Nourafkan et al., 2020). During the COVID-19 pandemic, living in a dormitory has been reported to be associated with stress (Hoang Nam Tran et al., 2022), but sometimes such an association has not been found (N. H. Tran et al., 2022).

Moreover, the transition to university life and the challenges of adapting to a new environment can contribute to heightened levels of stress, anxiety, and depression among students living in dormitories (Lee et al., 2016). A study in Japan has shown that the agemate-dominant-type students more easily developed relationships with new agemates and reported fewer difficulties in making the transition (Takahashi & Majima, 1994). relaxation techniques can relieve the stress and improve some aspects of the quality of life (Naiery & Hajbaghery, 2006). In female students, changes in menstrual and menstrual-related symptoms may occur after the university entrance (Matsuura et al., 2023). Understanding the prevalence and correlates of mental health issues in dormitory residents is crucial for universities to implement targeted interventions and support services to address students' psychological well-being.

Despite the wealth of research on dormitory life, there remains a notable gap in the literature regarding the specific challenges and adjustment processes faced by students in dormitories, particularly in the context of Vietnamese higher education. Therefore, our study seeks to address these gaps by providing an exploration of the dormitory life dynamics among Vietnamese university students. We aim to explore the interplay between various factors, including students' characteristics, lifestyle patterns, and mental health status, and their implications for well-being and academic success. Through a detailed analysis of the survey findings, we seek to provide insights into the challenges faced by students in dormitories and identify potential strategies for universities to enhance student support and promote academic achievement in these settings.

We suggest a conceptual framework for understanding the dynamics of university dormitory life among Vietnamese students, incorporating various factors that influence students' experiences, well-being, and academic success. At its core, this framework recognizes the interplay between individual characteristics, social dynamics, environmental factors, and institutional support mechanisms in shaping students' dormitory experiences. In this study, we

aimed to investigate the dynamics of university dormitories in Vietnam and their impact on the academic performance and well-being of undergraduate students.

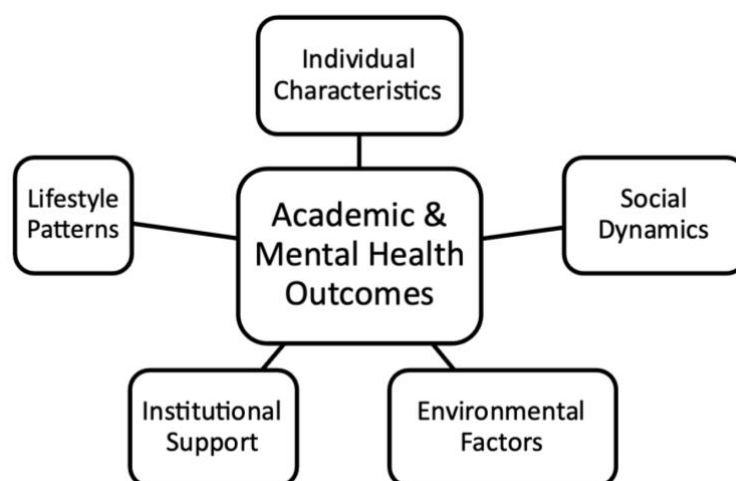


Figure 1: Conceptual Framework (by the authors)

Method

In 2024, a cross-sectional web survey was conducted targeting 288 undergraduate students from a university in Vietnam. All the participants were living in the campus dormitory administered by the university. For collecting data about academic performance, we did not include first grade students in the study. The collected data were analyzed using IBM SPSS Statistics. Prior to participating, participants were briefed on the study's purpose, voluntarily, confidentiality and anonymity. The questionnaire consists of the following sections: (1) Characteristics of participants; (2) Physical characteristics of participants; (3) Lifestyle patterns; (4) Mental health status using the Depression Anxiety Stress Scales (DASS-21) (Norton, 2007). Data about the current situation of the dormitory building was collected separately by interviewing university staff. The study was approved by the IRB of Thai Binh University of Medicine and Pharmacy (Approval No. 926 on 7 September 2023).

Results

The dormitory building of interest is belonging to the targeted university in Vietnam. The building is currently undergoing changes and offering diverse amenities. The dormitory building is located approximately 2km away from the campus, with students having the option to walk, bike, or ride a motorbike to get to classes. Rooms are situated on all the four floors of the building, without elevators, yet they are spacious at around 12m² and can accommodate up to 8 students with bunk beds provided. The dormitory rooms are segregated by gender, with each room equipped with its own ensuite bathroom facilities. Cooking is not permitted in the rooms, but there's a common kitchen area for preparing and making meals. Nearby medical services are available, and preventive measures against infections such as hand sanitizers, surface disinfectants, and masks are provided during outbreaks. However, there are no study rooms within the dormitory, and electricity and water expenses are billed per room. Additionally, there is no air conditioning, but there is a sports playground adjacent to the dormitory for students' recreation and physical fitness.

Table 1 shows the characteristics of the respondents. The provided data in Table 1 outlines the characteristics of the participants in a study or survey, with a total sample size of 288

individuals. the study has a higher proportion of female participants compared to male participants. the participants are mostly from the 2nd and 3rd years, with decreasing numbers in higher grades. The majority of participants are from the Medicine major, followed by Pharmacy and Nursing, with a smaller representation from Traditional Medicine. Most participants are from provinces other than Thai Binh, with a smaller percentage from Thai Binh itself or from abroad. Blood group O is the most common among the participants, followed by group B, with A being less common and AB the least common. The majority of participants are Rh positive.

Table 1. Participants Characteristics (N=288)

Category	Value	Total	
		n	%
Gender	Female	205	71.2
	Male	83	28.8
Grade	2nd year	80	27.8
	3rd year	82	28.5
	4th year	69	24.0
	5th year	41	14.2
	6th year	16	5.6
Major	Medicine	186	64.6
	Pharmacy	64	22.2
	Nursing	35	12.2
	Traditional Med.	3	1.0
Hometown	Thai Binh city	11	3.8
	District in Thai Binh prov.	44	15.3
	Other provinces	213	74.0
	Abroad	20	6.9
Blood type (ABO)	Group O	144	50.0
	Group A	43	14.9
	Group B	88	30.6
	Group AB	13	4.5
Blood type (Rh)	Rh(-)	102	35.4
	Rh(+)	186	64.6

Table 2 provides additional characteristics of the participants in the study, specifically focusing on numerical variables such as age, height (cm), and weight (kg). The average age of the participants is approximately 20.8 years. The SD of 1.66 indicates a narrow age distribution. The average height is around 160.7 cm. The average weight of the participants is approximately 52.8 kg.

Table 2. Participants characteristics (N=288)

	N		Mean	Median	SD
	Valid	Missing			
Age (year)	287	1	20.8	20.0	1.7
Height (cm)	287	1	160.7	160.0	7.55
Weight (kg)	285	3	52.8	51.0	8.96

Table 3 presents the mean, SD, and median for four variables: last semester's GPA (grade point average) out of a maximum of 10, depression score, anxiety score, and stress score. The mean GPA is 6.64, indicating an average performance, while the median is slightly higher at 7.0. The SD of 3.44 suggests a notable degree of variability in GPAs among the participants. The mean depression score is 9.93, with a median of 9.0. The SD of 8.09 indicates considerable variability in depression levels. The mean anxiety score is 10.24, with a median of 10.0. The SD of 8.27 suggests notable variability in anxiety levels. The mean stress score is 9.39, with a median of 8.0. The SD of 8.06 indicates considerable variability in stress levels.

Table 3. Academic performance and mental health status (N=288)

	N		Mean	Median	SD
	Valid	Missing			
Last semester GPA (max 10)	259	29	6.6	7.0	3.4
Depression	288	0	9.9	9.0	8.1
Anxiety	288	0	10.2	10.0	8.3
Stress	288	0	9.4	8.0	8.1

Table 4 presents the mean, SD, and median for five variables related to the participants' living conditions, habits, and study routines. The mean number of roommates is 2.92, with a median of 3.00. The SD of 1.409 indicates some variability in the number of roommates among the participants. The mean hours of sleep per night is 6.92, with SD of 1.430 suggests some variability in sleep durations. The mean time to go to bed is 23.58 (11:58 PM), with a median of 23.00 (11:00 PM). The SD of 1.285 indicates some variability in bedtime among the participants. The mean hours spent using handheld electronic devices is 6.41, with considerable variability. The mean hours allocated for self-study is 2.94, with a median of 2.00 and some variability.

Table 4. Number of roommates and daily time spending patterns

	N		Mean	Median	SD
	Valid	Missing			
Number of roommates	288	0	2.9	3.0	1.4
Hours Sleeping	285	3	6.9	7.0	1.4
Time to go to bed	288	0	23.6	23.0	1.3
Hours of using handheld electronic devices	285	3	6.4	6.0	3.5
Hours for Self-Study	284	4	2.9	2.0	2.0

Table 5 shows the eating patterns of the respondents. The majority of participants (36.8%) reported having breakfast out-campus. Self-made breakfast is the second most common pattern (20.8%). Not eating breakfast is notable, with 27.1% of participants reporting this pattern. Lunch and dinner show a significant dominance of self-made meals, with 71.2% and 78.5% of participants reporting this pattern. Out-campus lunch and dinner are the next most common pattern, with 16.3% and 10.4% of participants. Not eating lunch is reported by a very small percentage (2.1%). Dining in-campus, at family, not eating and other patterns make up the rest. The data indicates a preference for self-made meals across all three mealtimes. Out-campus dining is more prevalent for breakfast compared to lunch and dinner. Not eating meals is relatively uncommon but still notable, especially for breakfast and dinner. Dining in-campus is more common for lunch compared to breakfast and dinner. Family meals and other patterns are relatively infrequent across all mealtimes. These patterns suggest a mix of eating habits among the participants, with self-preparation being the most preferred method overall. The prevalence

of out-campus dining for breakfast and self-made meals for lunch and dinner might indicate factors like convenience, cost, or dietary preferences.

Table 5. Eating patterns (N=288)

	Breakfast		Lunch		Dinner	
	n	%	n	%	n	%
Not eating	78	27.1	6	2.1	6	2.1
Dining in-campus	32	11.1	23	8.0	19	6.6
Self-made	60	20.8	205	71.2	226	78.5
Out-campus	106	36.8	47	16.3	30	10.4
At family	4	1.4	5	1.7	5	1.7
Others	8	2.8	2	.7	2	.7

Table 6 presents data on lifestyle patterns of the participants, including alcohol consumption, tobacco use, coffee consumption, and exercise frequency. The majority of participants report not consuming alcohol (62.4%) or tobacco (96.2%). Coffee consumption is more common, with 47.9% reporting occasional consumption, followed by 42.6% reporting no consumption. In terms of exercise, a significant portion (60.9%) report exercising sometimes, while smaller percentages exercise weekly (15.9%) or daily (13.2%).

Table 6. Lifestyle patterns (N=288)

	Alcohol		Tobacco		Coffee		Exercise	
	n	%	n	%	n	%	n	%
None	212	62.4	327	96.2	145	42.6	34	10.0
Sometimes	124	36.5	9	2.6	163	47.9	207	60.9
Weekly	3	0.9	2	0.6	21	6.2	54	15.9
Daily	1	0.3	2	0.6	11	3.2	45	13.2

Table 7 presents the results of an Analysis of Variance (ANOVA) test examining the relationship between breakfast, lunch, and dinner habits and various factors, including last semester GPA (grade point average), depression, anxiety, and stress scores. These results suggest that while there is a significant association between lunch habits and GPA, there are no significant associations between breakfast, lunch, or dinner habits and depression, anxiety, or stress scores.

Table 7. Breakfast, Lunch, Dinner versus GPA (2nd grade and above) (N=288)

Between Groups	Breakfast		Lunch		Dinner	
	F	Sig.	F	Sig.	F	Sig.
GPA	0.71	0.615	7.57*	0.000	0.36	0.878
Depression	1.25	0.285	0.90	0.481	0.62	0.684
Anxiety	1.45	0.206	1.09	0.365	0.67	0.646
Stress	1.42	0.215	1.13	0.344	0.91	0.476

ANOVA. ***, Significant at the 0.001 level.

Table 7B presents the post hoc tests for lunch, utilizing the Bonferroni correction method, reveals significant mean differences in lunch preferences across different groups based on the dependent variable of last GPA. For students who reported not eating lunch, significant mean differences were observed compared to those who preferred in-campus dining, self-made meals, out-campus dining, family meals, and other meal patterns.

Table 7B. Bonferroni Post Hoc Tests (Lunch) (N=288)

Dependent Variable	(I) Lunch	(J) Lunch	Mean Diff. (I-J)	SE	Sig.	95% Confidence Interval	
						Lower	Upper
GPA	Not eating	In-campus	8.524***	1.46	.000	4.20	12.85
		Self-made	7.728***	1.30	.000	3.89	11.57
		Out-campus	7.973***	1.36	.000	3.94	12.00
		By family	7.750**	2.02	.002	1.76	13.74
		Others	7.530**	1.90	.001	1.91	13.15

. Significant at the 0.01 level. *. Significant at the 0.001 level.

Table 8 presents the results of an ANOVA test examining the relationship between alcohol, tobacco, coffee consumption, exercise habit and various outcomes including GPA, depression, anxiety, and stress scores. GPA does not show association with lifestyle habits. Mental health symptoms were associated with all consumption factors, but not associated with exercise habit.

Table 8. Consumption habits versus GPA and mental health symptoms (N=288)

Between Groups	Alcohol		Tobacco		Coffee		Exercise	
	F	Sig.	F	Sig.	F	Sig.	F	Sig.
GPA	0.39	0.754	0.07	0.978	0.72	0.544	0.30	0.827
Depression	6.36**	0.000	12.90**	0.000	4.51**	0.004	0.40	0.752
Anxiety	5.79**	0.001	12.00**	0.000	3.84*	0.010	0.73	0.537
Stress	6.86**	0.000	13.71**	0.000	3.92**	0.009	0.43	0.732

*. Significant at the 0.05 level. **. Significant at the 0.01 level.

Table 9 shows the associations of lifestyle conditions and habits within the dormitory versus GPA and mental health symptoms. Spearman's rho correlations are calculated for several variables in relation to last GPA, depression, anxiety, and stress scores. Number of roommates has a negative correlation with GPA. This implies that participants having more roommates tend to have lower GPAs. Hours of self-study is correlated with GPA, which suggests that participants who study more independently tend to have higher GPAs. There is a significant correlation between time to bed and depression, anxiety, and stress scores. This suggests that participants who go to bed later tend to report higher levels of depression, anxiety, and stress. Hours sleeping and hours of electric device use do not show statistically significant correlations with depression, anxiety, or stress scores.

Table 9. Dormitory conditions and habits versus GPA and mental health (N=288)

		GPA	Depression	Anxiety	Stress
Number of roommates	Corr. Coef.	-.115*	-.079	-.071	-.080
	Sig. (2-tailed)	.050	.144	.195	.139
Hours of sleeping	Corr. Coef.	.005	-.039	-.037	-.026
	Sig. (2-tailed)	.929	.478	.497	.633
Time go to bed	Corr. Coef.	.047	.204**	.219**	.185**
	Sig. (2-tailed)	.428	.000	.000	.001
Hours of electronical device use	Corr. Coef.	-.020	.033	.054	.039
	Sig. (2-tailed)	.735	.550	.322	.479
Hours of self-study	Corr. Coef.	.180**	-.054	-.084	-.078
	Sig. (2-tailed)	.002	.323	.124	.152

Corr. Coef.: Spearman's Correlation coefficient. * $p < 0.01$; ** $p < 0.001$

Table 10 shows the associations of demographic and biological factors versus GPA, depression, anxiety, and stress. Higher age and grade, major (medicine) were found to be associated with GPA. Hometown, sex, height, and weight showed no association with GPA, depression, anxiety, and stress. Certain blood types may be associated with higher levels of depression, while Rh (+) individuals tended to have higher depression, anxiety and stress scores.

Table 10. Demographic and biological factors versus GPA and mental health (N=288)

		GPA	Depression	Anxiety	Stress
Age (year)	Corr. Coef.	.214**	-.076	-.051	-.053
	Sig. (2-tailed)	.000	.160	.350	.328
Sex (female, male)	Corr. Coef.	.017	-.055	-.040	-.028
	Sig. (2-tailed)	.779	.312	.458	.609
Major (medicine, pharmacy, nursing, traditional med.)	Corr. Coef.	-.292**	.005	.002	.022
	Sig. (2-tailed)	.000	.926	.966	.691
Grade (1-6)	Corr. Coef.	.289**	-.023	.002	-.009
	Sig. (2-tailed)	.000	.672	.977	.872
Hometown (city, suburb, other provinces, abroad)	Corr. Coef.	-.065	-.102	-.097	-.091
	Sig. (2-tailed)	.270	.061	.074	.095
Height (cm)	Corr. Coef.	-.047	-.003	-.017	.003
	Sig. (2-tailed)	.424	.950	.749	.950
Weight (kg)	Corr. Coef.	-.039	.001	-.006	.006
	Sig. (2-tailed)	.506	.991	.919	.908
ABO blood type (O,A,B,AB)	Corr. Coef.	-.057	.107*	.106	.094
	Sig. (2-tailed)	.329	.048	.050	.084
Rh blood type (-), (+)	Corr. Coef.	-.033	.132*	.121*	.107*
	Sig. (2-tailed)	.579	.015	.026	.049

*Corr. Coef.: Spearman's Correlation coefficient. * $p < 0.01$; ** $p < 0.001$*

Discussion

From the results, we have found some evidence to consolidate the conceptual framework proposed in the Figure 1. Regarding individual characteristics, age, gender, academic major, and grade level are individual factors that may influence students' dormitory experiences. Older students and those in higher grades may exhibit different adjustment patterns and academic behaviors compared to younger or lower-grade students. Similarly, students majoring in different fields may have unique academic demands and social networks within the dormitory.

Related to social dynamics, roommate relationships, social support networks, and preexisting affective relationships play a crucial role in shaping students' adjustment to dormitory life. Positive roommate relationships and strong social support networks can enhance students' overall satisfaction and well-being (Takahashi & Majima, 1994), while conflicts or lack of social connections may contribute to stress and adjustment difficulties (Nourafkan et al., 2020). The physical environment of the dormitory, including living conditions, facilities, and proximity to campus resources, can impact students' daily routines and quality of life. The current study showed that higher number of roommates (suggesting a larger room) may influence the stress level. Factors such as room size, cleanliness, and noise levels may influence

students' sleep patterns, study habits, and overall comfort within the dormitory need to be investigated in the future studies.

For lifestyle patterns, students' lifestyle habits, including self-study hours, sleep duration, meal choices, smoking and drinking, technology use, and exercise frequency, contribute to their overall well-being and academic performance. Variations in lifestyle patterns among students may reflect differences in personal preferences, cultural norms, and socioeconomic backgrounds (Tao et al., 2016). In the current study, we found some factors such as self-study hours that may influence the academic performance, while other factors such as drinking or smoking could influence mental health scores.

Related to institutional support, university policies, support services, and campus initiatives play a vital role in fostering a positive dormitory environment and supporting students' well-being and academic success (H.N. Tran et al., 2022). Some initiatives such as tutor system (Ioana, 2019; Tanaka & Wataru, 2019), mixing local and international students have been reported to be effective in facilitating dormitory life (Tsujii, 2000). The current study findings about mental health scores and its associated factors remind about the need. Access to mental health resources, academic advising, and extracurricular activities can enhance students' overall college experience and facilitate their adjustment to dormitory life. By considering the interactions among these factors, the conceptual framework provides an understanding of the complexities of university dormitory life among students. In the future, through empirical research and targeted interventions, universities can leverage this framework to create supportive dormitory environments that promote students' well-being and academic achievement.

The current study faces several limitations that should be acknowledged. Due to data collection constraints, we were unable to include a control group comprising students living outside the dormitory. The absence of longitudinal follow-up data limits our ability to track changes in students' dormitory experiences and outcomes over time. Time and resource constraints prevented us from conducting follow-up assessments. The reliance on self-reported data introduces the possibility of response bias and social desirability effects. Moreover, our study sample was limited to undergraduate students from a single university in Vietnam, which may restrict the generalizability.

Conclusion

This is our first attempt to investigate the dynamics of university dormitory life among Vietnamese students. Through an analysis of participants' characteristics, lifestyle patterns, and mental health status, we have uncovered significant associations and trends that shed light on the factors influencing students' well-being and academic success. The findings from our study underscore the importance of considering various aspects of dormitory life, including number of roommates and roommate dynamics, sleep patterns, and dietary habits, in understanding students' experiences and outcomes. We observed significant correlations between certain lifestyle factors, such as meal preferences, and academic performance, suggesting potential avenues for intervention and support. Moving forward, it is essential for universities to recognize the importance of creating supportive and conducive environments within dormitories. This includes implementing policies and services that promote positive social interactions, foster healthy lifestyle habits, and address mental health concerns. By addressing these factors, universities can enhance students' overall well-being and academic success during their time in dormitory settings.

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Contact email: quangpn@tbmc.edu.vn



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Sakae 1-16-26-201
Naka Ward, Nagoya, Aichi
Japan 460-0008
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