OFFICIAL CONFERENCE PROCEEDINGS

The 5th IAFOR International Conference on Arts & Humanities in Hawaii (IICAH2025)

January 3-7, 2025 | Honolulu, Hawaii, USA, and Online

ISSN: 2432-4604

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.

iafor

"To Open Minds, To Educate Intelligence, To Inform Decisions"

The International Academic Forum provides new perspectives to the thought-leaders and decision-makers of today and tomorrow by offering constructive environments for dialogue and interchange at the intersections of nation, culture, and discipline. Headquartered in Nagoya, Japan, and registered as a Non-Profit Organization (一般社団法人) , IAFOR is an independent think tank committed to the deeper understanding of contemporary geo-political transformation, particularly in the Asia Pacific Region.

INTERNATIONAL

INTERCULTURAL

INTERDISCIPLINARY

iafor

International Academic Board

Dr Joseph Haldane, IAFOR and Osaka University, Japan, & University College London, United Kingdom
Professor Jun Arima, President, IAFOR & University of Tokyo, Japan
Professor Anne Boddington, Executive Vice-President and Provost, IAFOR & Middlesex University, United Kingdom
Professor Barbara Lockee, Virginia Tech, United States
Professor Donald E. Hall, Binghamton University, United States
Dr James W. McNally, University of Michigan, United States & NACDA Program on Aging
Professor Grant Black, Chuo University, Japan
Professor Dexter Da Silva, Keisen University, Japan
Professor Baden Offord, Centre for Human Rights Education, Curtin University, Australia & Cultural Studies Association of Australasia
Professor Frank S. Ravitch, Michigan State University College of Law, United States
Professor William Baber, Kyoto University, Japan
Dr Virgil Hawkins, Osaka University, Japan

IICE2025 Conference Programme Committee

Dr Failautusi 'Tusi' Avegalio, University of Hawai'i at Mānoa, United States
Kālewa Correa, Smithsonian Institute, United States
Dr Joseph Haldane, IAFOR and Osaka University, Japan, & University College London, United Kingdom
Professor Curtis Ho, University of Hawai'i at Mānoa, United States
Dr Daniel Hoffman, University of Hawai'i at Mānoa, United States
Professor Barbara Lockee, Virginia Tech, United States
Dr James W. McNally, University of Michigan, United States & NACDA Program on Aging
Dr Alex Means, University of Hawai'i at Mānoa, United States
Professor Michael Menchaca, University of Hawai'i at Mānoa, United States
Professor Michael Owen, Brock University, Canada
Professor Sela V. Panapasa, University of Michigan, United States
Professor Elizabeth Park, Chaminade University of Honolulu, United States
Robin Watson, University of Hawai'i at Mānoa, United States
Dr Hiagi M. Wesley, Brigham Young University – Hawaii, United States

IICAH2025 Conference Programme Committee

Professor Grant Black, Chuo University, Japan
Dr Joseph Haldane, IAFOR and Osaka University, Japan, & University College London, United Kingdom
Professor Donald E. Hall, Binghamton University, United States
Dr Daniel Hoffman, University of Hawai'i at Mānoa, United States
Dr James W. McNally, University of Michigan, United States & NACDA Program on Aging
Robin Watson, University of Hawai'i at Mānoa, United States

The IAFOR International Conference on Arts & Humanities in Hawaii 2025

Official Conference Proceedings

ISSN: 2432-4604

© The International Academic Forum 2025
The International Academic Forum (IAFOR)
Sakae 1-16-26-201
Naka Ward, Nagoya, Aichi
Japan 460-0008
www.iafor.org

Table of Contents

Does Air Pollution Impact Consumer Sentiment in Pakistan: A City-Level Analysis
Syed Zulqernain Hussain pp. 1 - 13

The Monster in "Frankenstein" and Edward Hyde: Eugenics and the Politics of Appearance
Harisankar Anirudhan pp. 15 - 21

Environmental Sustainability Evaluation in Sub-Saharan Africa: Energy Consumption and Environmental Degradation
Josephine Andrea Niangue pp. 23 - 35

An Ongoing Visual Turn About Contemporary "Green Screen" Painting
Haiyu Yuan pp. 37 - 50

Exploring South Asian Immigrant Women's Strategies to Construct Hybrid Identity: An Integrated Approach to Acculturation
Ghazala Ahmed
Kamini Jaipal-Jamani pp. 51 - 63

Re-framing the Past: Using Film and Cinema to Write Architectural History
Christopher S. Wilson
Gül Kaçmaz Erk pp. 65 - 73

Aotearoa New Zealand Histories: A National Narrative, a National Identity
Jung June Huh pp. 75 - 90

The Impact of Fulbright Scholarships on Alumni: An Analysis of Social Capital Upon Their Return Home
Lorraine Kouao pp. 91 - 102

Possession, Performance and the Passing of Time: The Global and Historical Contexts for Ritual Theatre in South West India
Shankara Angadi pp. 103 - 112

Psychosocial Stressors Latinas Face in Education
Orsolya Varkonyi pp. 113 - 117

Leaving No One Behind in Suburban Japan's Internationalization: Language Teaching for Community Integration and Empowerment
Maria Lupas
Sachie Miyazaki
Akiko Kano pp. 119 - 124

Utilization of Instructional Support in Open and Distant Learning in Relation to Retention in Kenya
Mary Nyakiringa Wanderi pp. 125 - 144

Origins of Professional Photography in Izmir During the Ottoman Era
Murat Bengisu pp. 145 - 155

Integrating Rousseau's "Dialogue With the Self" and Inner Development Goals (IDG): Fostering Self-Awareness and Creativity in Education
Yuko Miyazaki pp. 157 - 164

From Land Acquisition to Nation-Building: Exploring the Jewish Agency's Diverse Actions in Establishing Israel
Haseena Sultan
Tajwar Ali pp. 165 - 175

The Emergence and Influence of Early European Opera: A Historical and Analytical Study
Yan Jiajun pp. 177 - 181

Examining Smallholder Farmers' Perceptions of Irrigation Access in the Volta Region, Ghana
Michael Kossivi Tamekloe pp. 183 - 199

A Proposal of an Auxiliary Method for Cosmetic Container Design Based on Sensibility Evaluation
Tomokazu Ishikawa pp. 201 - 213

Identifying Educational Challenges: Insights From Myanmar Refugee Parents in Lowell, Massachusetts
Lugyi No
Ardeth Maung Thawnghmung pp. 215 - 223

Miniature Worlds, Material Power: Objects and Agency in Jessie Burton's "The Miniaturist"
Rasha Osman Abdel Haliem pp. 225 - 236

Human-Technology Relations in the Classroom: Postphenomenology-Inspired Field Notes From a COVID-Impacted Humanities Classroom in the Global South
Samson Thomas pp. 237 - 253

Cultural Aesthetics in Inclusive Playground Equipment Design
Tin-Man Lau
Chyun-Chau Lin pp. 255 - 266

Transformation of Javanese Women's Role From Domestic to Artistic: Interpretation of Kothékan Lesung
Dea Lunny Primamona
Bambang Sunarto
Nyak Ina Raseuki
Budi Setiyono pp. 267 - 280

From Data Points to Polygons: An Innovative Approach to Geolinguistic Mapping
Hiromi Oda pp. 281 - 293

Green Tea Through the Ages: A Comparative Study of Classical Texts From China and Japan
Hoang-Nam Tran
Hong-Van Nghiem
Katya Marinova
Militsa Mineva pp. 295 - 304

The Application of Gamification in Economics Classrooms: Implications for Initial Teacher Education Curricula
Beatrice Ngulube pp. 305 - 314

Global Perspectives on Digital Media Education: Cross-Cultural Differences and Influencing Factors
Xiangyu Dong
Ya Gao
Andi Dong
Jian Liang
Lu Bai pp. 315 - 326

Musical Activism in the U.S. and Japan in the Post-9/11 Era
Mikiko Tachi pp. 327 - 336

Spontaneous GenAI Adoption in the Newsroom: Deficiencies and Strategies
Doan Ngoc Thanh Tam pp. 337 - 352

Designing an Immersive VR Tool for Inclusive-Classroom Simulation With ASD Students
Jakkarin Thepvong pp. 353 - 366

Social Cohesion in Education: The Benefits of Embedding Art and Design in a Learning Environment
Julie Brown pp. 367 - 382

Evolution of the Human Diet: Nutrition and Lifestyle Diseases
Rheagan Humphrey pp. 383 - 393

An Experimental Study on Methodology for the Use of Picture Comprehension of Sewing Technology: An Example of Course in Design and Technology
Bayarjargal Vanchinsuren pp. 395 - 399

Intersubjectivity and Emotion in Narratives of Inherited War Memories
Tomoko I. Sakita pp. 401 - 411

Does Air Pollution Impact Consumer Sentiment in Pakistan: A City-Level Analysis

Syed Zulqernain Hussain, University of Otago, New Zealand

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Air pollution is a rising concern in Pakistan for the past few years. Apart from a direct bearing on the health of households, and a significant risk to the environment; it is hypothesized that poor air quality has an impact on consumer sentiment in major cities of Pakistan. In this study, the impact of air quality on consumer sentiment is estimated for major cities of Pakistan. Consumer confidence survey conducted by the State Bank of Pakistan is one of the leading indicators of economic activity. This survey primarily reflects consumers' perceptions about the current and expected economic conditions. Consumer sentiment is measured by the Diffusion Index, while the Air Quality Index is used to capture the magnitude of air pollution. Using city fixed effects model on balanced panel data of ten cities and 36 time periods, results show air pollution has a negative impact on consumer sentiment in Pakistan. The coefficient of air pollution is statistically significant and is consistent in all specifications – reflecting that air pollution does impact consumer sentiment. Reverse causality test validates that consumer sentiment do not impact air pollution. Control variables such as dummies for floods, terrorist attacks, and household characteristics for each city are included in this study to gain improved model fit. The government of Pakistan needs to acknowledge the severity of air pollution and its impact on consumer sentiment—a leading indicator of economic activity.

Keywords: Air Pollution, Consumer Sentiment, Diffusion Index, Balanced Panel, Environment

iafor
The International Academic Forum
www.iafor.org

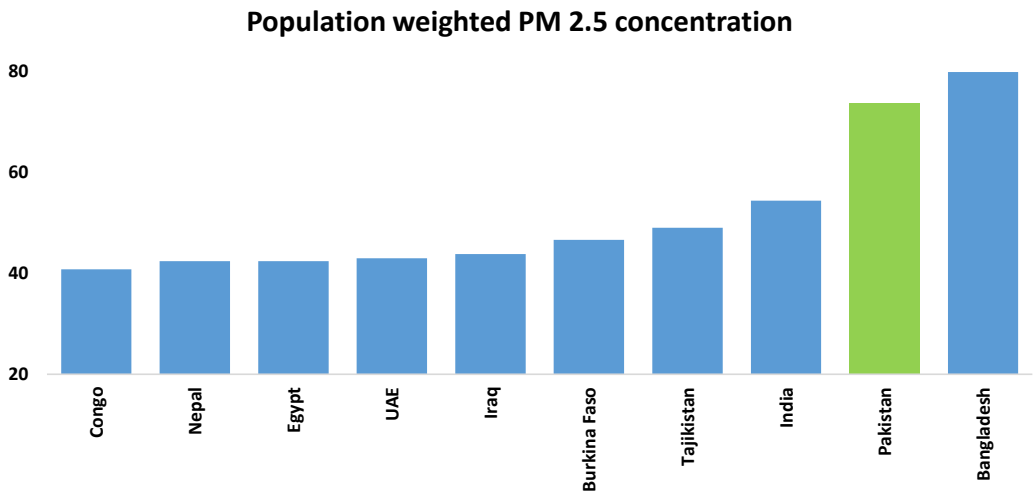
Introduction

Being categorized as an emerging financial economy, the economy of Pakistan is the 24th largest based on GDP using purchasing power parity (PPP). Pakistan is the fifth-most populous country in the world. Rampant urbanization and an increase in vehicular loads have left the air saturated with harmful pollutants at an unprecedented rate (Anjum et al., 2021). Pakistan is ranked second in the world in terms of most polluted country (Figure A**)**. The persistent poor air quality reduces the life expectancy by almost 4 years in Pakistan (The Air Quality Life Index, 2023). In Pakistan, twenty-five deaths per 100,000 are attributable to outdoor air pollution and thirty deaths per 100,000 are attributable to indoor air pollution (World Health Organization, 2024).

Air pollution is tagged as a key environmental issue since the 1970s (The World Bank, 2019). The main cause of air pollution is fossil fuel burning, industrial processes, transport, and agriculture activities. In addition, anthropogenically induced climate change enhances the threat of exposures to air pollutants by changing the concentrations, transport process and lifetime of local and regional pollutants (Ministry of Finance, 2022). There are frequent episodes of hazardous levels of air quality emanating from crop burning stubble, deforestation, industrial and vehicle emissions (IQAir, 2023). The worsening situation compelled the government to declare an environmental and health emergency in three big cities of Pakistan. The public places in these cities were closed, and face mask was made mandatory for a week.

The effect of air pollution is not only limited to the environment, chronic diseases, and depression, but it has an impact on macroeconomic indicators as well, for instance high government expenditures, and surge in housing prices of areas with better air quality etc. A hypothesis that air quality impacts consumer sentiments is formulated and tested in this study. Consumer sentiment about current and expected economic conditions of the country is one of the leading indicators of economic activity. In this study, the year-on-year growth of consumer confidence index is used to see the impact of air pollution on consumer sentiments.

Figure 1: 2023 Country Ranking



Source: IQAir

Literature Review

Air pollution is a byproduct of urbanization and industrial development over the past few decades. Air pollution in cities is a serious environmental issue particularly in the developing economies (Mayer, 1999). Tagged as the greatest environment threat, air pollution accounts for almost 7 million deaths around the world every year. Air pollution is the main reason for diseases such as asthma, cancer, pulmonary illnesses, and heart diseases (United Nations Commission for Europe, 2024). The impact of air pollution is particularly evident on child growth and development (Balietti et al., 2022). The harm of air pollution extends to both physical and mental health (Xue et al., 2021). Air pollution further impedes and limits consumer choices (He et al., 2022). Peoples' trust on the local government is also compromised due to air pollution (Yao et al., 2022). In some cases, air pollution may lead to social conflicts, aggressive behaviours and contribute to violent crimes (Li & Meng, 2023). Sleep loss is another implication of air pollution (Heyes & Zhu, 2019).

The impact of air pollution spreads across various aspects of life, including health, the environment, the overall economy, mental health, and behaviour of the households & firms. The impact of air pollution on health seems obvious and there are several studies that estimate the association of air pollution and health issues. A study related to 6 cities of the United States of America (US) reveal that long-term exposure to air pollution leads to respiratory diseases and there exists a strong association between air pollution and mortality (Dockery et al., 1993). Air pollution also leads to lung cancer (Loomis et al., 2013). Air pollution also leads to adverse impact on child health. Air pollution may lead to premature birth, low-birth weight, and developmental disorders (Perera, 2008).

One of the major consequences of air pollution and climate change is high extinction of specific species and possible loss of biodiversity (Bellard et al., 2012). The macroeconomic consequences of air pollution are alarming and significant. The foremost macroeconomic cost to economies around the world is the health related expenditures. Air pollution related costs alone account for over US$ 5 trillion globally (The World Bank, 2016). The adverse impact of air pollution is substanial on the airlines industry as well. A study on China shows that higher the PM2.5 concentration levels, high is the probability of flight delays and/or cancellations (Chen et al., 2023). Migration to areas with cleaner air is also an outcome of pollution (Pan, 2023).

Another macroeconomic implication of air pollution is the loss in labor productivity. A study conducted at two industrial locations in China reveals that the output per worker reduces in proportion to severe air pollution (He et al., 2019). Environmental protection must be treated as an investment in human capital as ozone pollution leads to a loss in agricultural worker productivity (Zivin & Neidell, 2012). The link between air pollution and mental health is also well established. Air pollution is one of the contributing factors to mental health disorders and high exposure to PM2.5 is associated with high risk of depression (Power et al., 2016). A study on South Korea indicates that high levels and exposure to air pollution is correlated with a high sucide rate. Based on a meta-analysis, it is evident that exposure to air pollution negatively impacts mental health, mood swings, raises anxiety and depression (Lim et al., 2012). Air pollution also limits consumer choices and the impact of air pollution is disproportinate on different economic sectors. Air pollution leads to a slowdown in the sales of movie theater market in China (He et al., 2022). Brain drain and and a loss in firm productivity is one of the consequences of air pollution (Xue et al., 2021).

It is evident that air pollution does impact mental health. The important question is whether the impact also entails decision making of consumers? A few studies emphasizes that air pollution influences consumer behavior, including preferences, spending habits, and lifestyle choices. Air pollution redcues recreational activities which does hamper overall demand in the economy (Zivin & Neidell, 2009). Consumer spending patterns change due to air pollution. Consumer may swap outdoor activities and expenses with indoor activities. Subjective well-being is influenced by air pollution (Welsch, 2006). Dynamics of the housing market change due to air pollution. Areas with clean and quality air have a high demand and the property prices rise in such areas (Chay & Greenstone, 2005).

The impact of air pollution on health, infrastructure and overall economy has been estimated to some extent for Pakistan. However the literature is scarce in terms of assessing the impact of air pollution on consumer sentiment and economic activity. This novel study fills the gap by analyzing the impact of air quality on ten major cities of Pakistan from January 2018 till December 2023. At least one city is chosen from each province (state) of Pakistan.

The hypothesis formulated and tested in this study is as follows:

H_0 : There is no impact of air pollution on consumer sentiment in Pakistan

H_a : There is a impact of air pollution on consumer sentiment in Pakistan

Method

Most of the previous studies which estimated the impact of poor air quality relied on time series data and employed autoregressive distributive lag model to find out the relationship between air pollution and variable of interests. Some studies also used Granger causality to check the direction and nature of the relationships between air pollution and other variables.

However, in this study, panel linear fixed effects models are used to estimate the impact of air pollution on consumer sentiment for 10 cities and 36 time periods.[1] Panel variable is city, and it is strongly balanced. Panel data allows one to control for variables one cannot observe or measure like cultural factors across cities; or variables that change over time but not across cities (i.e. national policies, federal regulations, international agreements, etc.).

$$CS_{it} = \beta_0 + \beta_1 AQI_{it} + \alpha_i + \mu_{it} \quad (1)$$

CS = Consumer Sentiment measured by diffusion index
AQI = Air quality index
α_i = city fixed effects
i= 10
t = 36

In specification (1), consumer sentiment (CS) is the dependent variable; air quality index is the main explanatory variable that vary over time. YoY growth of consumer sentiment and air quality index is used in the estimations to avoid any seasonality. β_0 is the intercept that maybe different for each period. As mentioned earlier, city-fixed effects are employed in this specification. The two terms α_i and u_{it} behave somewhat differently from each other. There is a

[1] Panel data (also known as longitudinal or cross-sectional time-series data) is a dataset in which the behaviour of entities is observed across time.

different u_{it} for each city at each point in time but α_i only varies across cities, not over time (Allison, 2009). However, μ represents purely random variation at each point in time.

The central bank of Pakistan -the State Bank of Pakistan (SBP) - in collaboration with one of the top universities of Pakistan, conducts the Consumer Confidence Survey on a national scale. The information collected through this survey is used to construct current, expected, and overall confidence indices which are useful in monetary policy formulation and short-term forecasting (State Bank of Pakistan, 2024).[2] Three different measures of consumer sentiments are used in this study: (i) Current economic conditions, (ii) Expected economic conditions, and (iii) Consumer confidence index.

For the data on air quality, the live Major Cities Ranking by IQAir is used. This ranking constitutes 120 major cities of the globe. The data used to generate the live ranking is aggregated from thousands of regulatory air quality monitoring stations and low-cost air quality sensors operated by governmental bodies, research institutions, non-profit organizations, companies, and citizen scientists. The number shown for each major city is the average (median) Air Quality Index (AQI) from all the stations in that city for that specific time. Comparing the air quality of only major cities rather than an exhaustive list of all cities provides a concise, meaningful, and eye-opening comparison of air quality in urban centres across the globe (IQAir, 2023).

In addition, several control variables (Z) for robustness check are included in specification (2). These control variables are: (i) *Education* - the average level of education of the respondents in a city, (ii) *income* - average level of income of the respondents in a city, (iii) dummy for *Floods* in a city, and (iv) dummy for terror incident in a city.

$$CS_{it} = \beta_0 + \beta_1 AQI_{it} + \beta_2 Z_{it} + \alpha_i + \mu_{it} \quad (2)$$

For robustness purpose, time fixed effect is also added in the above specification. Moreover, previous consumer sentiment is included as one of the control variables to check whether lagged sentiment influences the current consumer sentiment or not.

In all specification, clustered (by city) standard errors are used. Clustered standard errors are not underestimated like normal or robust standard errors. It is imperative to use clustered standard errors if there are several different covariance structures within the data sample that vary by a certain characteristic—a "cluster" which in this study is city. Clustered standard errors provide unbiased standard errors estimates.

Consumer sentiment is one of the leading indicators of economic activity. Perception about economic indicators such as inflation, interest rate and employment are important for an emerging economy like Pakistan in which forward-looking policy formulation is followed. The State Bank of Pakistan in partnership with one of the leading universities in Pakistan conducts the Consumer Confidence Survey on a national scale largely following the University of Michigan Consumer Sentiment Survey. The information obtained through this survey is used to construct current, expected, and overall confidence indices, which are then used in monetary policy formulation and short-term forecasting. [3,4]

[2] https://www.sbp.org.pk/research/CCS-m.asp
[3] State Bank of Pakistan. http://www.sbp.org.pk/research/CCS.asp. Accessed 15 May 2024.
[4] Each wave of this survey covers about 1800 households contacted through fixed line telephone across Pakistan

Each wave of this survey covers about 1800 households contacted through fixed line telephone across Pakistan started from January 2012 on a bi-monthly frequency but from January 2023, it is conducted monthly. In terms of coverage, it covers all regions of Pakistan. The questionnaire is asked in different regional languages to ensure maximum outreach. The population of Pakistan is divided into 59 strata and each strata gets representation in the sample according to its population.

In addition, household characteristics such as number of households, age, income, occupation, and qualification of the respondents are also part of the survey. These household characteristics are used as control variables in this study going forward. The SBP reports results of this survey in the form of a Diffusion Index (DI). The Diffusion Index shows the general tendency of respondents about a certain aspect of a particular survey.

The questionnaire for this survey offers five types of options to the respondents for each question.

PP=Increase/improve significantly.
P=Increase/improve.
E=Unchanged/neutral; N = decline /deteriorate; and
NN=Decline/deteriorate significantly.

Based on these five options, the Diffusion Index is computed in the following two steps:

Step 1: Net Response (NR) is computed as below:

$NR = (1.00*PP) + (0.50 \times P) + (-0.50 \times N) + (-1.00*NN)$.

Step 2: Diffusion Index (DI) is calculated as follows: $DI = (100 + NR) / 2$

Where DI ranges from 0 to 100; interpretation of which is as follows:

$DI > 50$ indicates that Positive views are more than Negative views.

$DI = 50$ indicates that Positive views and Negative views are equal.

$DI < 50$ indicates that Positive views are less than the Negative views.

Table 1: Summary Statistics of Consumer Sentiment and Air Quality Index

Variable	**Mean**	**Min**	**Max**	***s.d***
Consumer Confidence Index	37.43	17.0	58.0	*4.11*
Current Economic Conditions Index	34.23	16.0	61.0	*4.85*
Expected Economic Conditions Index	40.66	19.0	61.0	*4.75*
Education level of city (avg)	Graduate	Primary	Post-Graduate	-
Income level of city (avg per month)	300-500$	100-200$	1000-2000$	-
Air Quality Index	64.98	14.1	261	*48.1*

Source: Analyst's Calculations

The Consumer Confidence Survey (CCS) data used in this study covers the period from January 2018 to December 2023. Due to limited available data on the Air Quality Index, ten major cities of Pakistan—at least one from each province (state)—are analysed in this study. Thirty-six surveys consisting of almost 100,000 households are covered in the analysis.

started from January 2012 on a bi-monthly frequency but from January 2023, it is conducted monthly. In terms of coverage, it covers all regions of Pakistan. The questionnaire is asked in different regional languages to ensure maximum outreach. The population of Pakistan is divided into 59 strata and each strata gets representation in the sample according to its population.

Summary statistics related to consumer sentiment and air pollution are provided in Table 1.

Table 2: Air Quality Index – Categories

Category	US AQI level	PM 2.5 (ug/m^3)	Health Recommendation
Good	0-50	0-9.0	Air quality is satisfactory.
Moderate	51-100	9.1-35.4	Outdoor activities to be avoided by sensitive individuals.
Unhealthy for sensitive groups	101-150	35.5-55.4	General public and sensitive individuals face risk to experience irritation and respiratory problems.
Unhealthy	151-200	55.5-125.4	Increased likelihood of adverse effects and aggravation to the heart and lungs among general public.
Very unhealthy	201-300	125.5-225.4	General public will be noticeably affected. Sensitive groups should restrict outdoor activities.
Hazardous	301+	225.5+	General public at high risk of experiencing strong irritations and adverse health effects.

Air Pollution

Air pollution is proxied by the Air Quality Index (AQI). The AQI is a measurement of air pollutant concentrations in ambient air pollution and their associated health risks (IQAir, 2023). The index represents air pollutant concentrations with a number falling within a range of air quality categories. Within each category and number range, elevated health risks associated with rising air pollutant concentrations are identified.

The air quality index ranges from 0 to 500, though air quality can be indexed beyond 500 when there are higher levels of hazardous air pollution. Good air quality ranges from 0 to 50, while measurements over 300 are considered hazardous. Table 2 provides information on different categories of AQI.

Results and Discussion

Table 3 provides result of air quality index and the overall consumer confidence index. The coefficient of air quality index is statistically significant with a negative sign in all specifications which makes sense intuitively. If the air quality index rises (implying more air pollution), consumer sentiment is likely to deteriorate. This coefficient of air quality index is approximately equal to one-half standard deviation of the dependent variable (consumer confidence index), which implies that a considerable amount of variation in consumer sentiment is influenced by the air quality.

Table 3: Impact of Air Quality Index on Consumer Confidence Index

	(1)	(2)	(3)	(4)
AQI[a]	-0.06**	-0.09**	-0.100**	-0.09**
	(0.027)	*(0.028)*	*(0.024)*	*(0.033)*
Control Variables				
Level of Education (Avg of City)		Not sig	Not sig	Not sig
Level of Income (Avg of City)		Sig at 5%	Sig at 5%	Sig at 5%
Floods (binary variable)			Sig at 5%	Sig at 5%
Terrorist event (binary variable)			Sig at 5%	Sig at 5%
Lag of Sentiment			Not sig	Not sig
City Fixed Effect	***Yes***	***Yes***	***Yes***	***Yes***
Time Fixed Effect	No	No	No	***Yes***
Observations	360	360	360	360
Number of cities	10	10	10	10

Notes: Clustered (by city) standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
a: Year-on-year growth rate of air quality index.

In column (2) of Table 3, several control variables are added for robustness purpose. Socio-economic variables such as the average education level of the city and the average income level of the city, and the average household size in a city. These control variables (HH characteristics within a city) have important economic intuition. The results show that higher the level of income, sentiment is relatively positive. However, the coefficient of level of education is not statistically significant. Even by adding these two control variables, the coefficient of our main explanatory variable is statistically significant. Regarding the size of the coefficient, coefficient is still equal to one-half standard deviation of the dependent variable (consumer sentiment).

In the last two columns of Table 3, additional control variable such as a dummy for floods and a dummy for terrorist incidents in a city are added. In addition, time dummy variable has also been included; the result of this specification keeps our main variable of interest significant. Hence, all specifications are consistent, and we reject our null hypothesis that air pollution has no impact on consumer sentiment. Results validate the hypothesis that cities with higher air pollution tend to have more pessimistic sentiment. In columns 3-4, lag value of dependent variable (consumer sentiment in previous period) is also used as a predictor for the current value of the dependent variable (current sentiment); results indicate that previous sentiment does not impact the current sentiment.

Table 4: Impact of Air Quality Index on Current Economic Conditions Index

	(1)	(2)	(3)	(4)
AQI[a]	-0.07**	-0.10**	-0.11**	-0.09**
	(0.025)	*(0.026)*	*(0.023)*	*(0.031)*
Control Variables				
Level of Education (Avg of City)		Not sig	Not sig	Not sig
Level of Income (Avg of City)		Sig at 5%	Sig at 5%	Sig at 5%
Floods (binary variable)			Sig at 5%	Sig at 5%
Terrorist event (binary variable)			Sig at 5%	Sig at 5%
Lag of Sentiment			Not sig	Not sig
City Fixed Effect	***Yes***	***Yes***	***Yes***	***Yes***
Time Fixed Effect	No	No	No	***Yes***
Observations	360	360	360	360
Number of cities	10	10	10	10

Notes: Clustered (by city) standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
a: Year-on-year growth rate of air quality index.

Table 4 and Table 5 provide result of air quality index on the current economic condition index and the expected economic condition index respectively. The results are in line with the overall consumer confidence index. The coefficient of air quality index is statistically significant with a negative sign in all specifications.

Table 5: Impact of Air Quality Index on Expected Economic Conditions Index

	(1)	(2)	(3)	(4)
AQI[a]	-0.06**	-0.09**	-0.10**	-0.09**
	(0.026)	*(0.027)*	*(0.024)*	*(0.030)*
Control Variables				
Level of Education (Avg of City)		Not sig	Not sig	Not sig
Level of Income (Avg of City)		Sig at 5%	Sig at 5%	Sig at 5%
Floods (binary variable)			Sig at 5%	Sig at 5%
Terrorist event (binary variable)			Sig at 5%	Sig at 5%
Lag of Sentiment			Not sig	Not sig
City Fixed Effect	***Yes***	***Yes***	***Yes***	***Yes***
Time Fixed Effect	No	No	No	***Yes***
Observations	360	360	360	360
Number of cities	10	10	10	10

Notes: Clustered (by city) standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
a: Year-on-year growth rate of air quality index.

One of the possibilities is that air pollution itself is due to high economic activity in Pakistan. To check this, reverse causality test is estimated as well. Results of reverse causality indicates that consumer sentiment does not impact air pollution in Pakistan. Even during the COVID-pandemic period, when smart lockdowns were imposed and the industrial sector was completely shut down, air quality remained poor in Pakistan. It appears and to some extent validated by the reverse causality test that air pollution is largely exogenous and probably due to global climate change.

Conclusion

As one of the most polluted countries in the world, Pakistan is facing problems such as premature deaths, respiratory diseases, and a reduction in life expectancy. Agricultural productivity also suffers as crops get damaged due to pollutant exposure. A visible fall in tourism is also a byproduct of pollution. As pointed out in previous studies, air pollution leads to depression and anxiety. Another possible impact of air pollution on consumer sentiment related to current and expected economic conditions is estimated in this study. Consumer sentiment is a leading indicator of economic activity and consumer confidence index is treated as an important variable during the process of monetary policy formulation. Using city fixed effects model on balanced panel data of ten cities and 36 time periods, main findings indicate that air pollution has a negative impact on consumer sentiment. The impact is significant for the overall consumer confidence index, the current economic conditions index and the expected economic conditions index. The coefficient of air quality index is roughly equal to one standard deviation of the consumer confidence index. Reverse causality test shows that consumer sentiment or economic activity does not impact air pollution and the relationship is only one way. Control variables such as dummies for floods, terrorist attacks, average level of education and average level of income for each city are included in this study to gain improved model fit. Results are consistent in all specifications. Given a significant impact of air pollution on consumer sentiment – a leading indicator of economic activity, the stakeholders, particularly the government of Pakistan needs to address the problem of air pollution.

References

The Air Quality Life Index. (2023). Pakistan Fact Sheet. Chicago: Energy Policy Institute at the University of Chicago.

Allison, P. D. (2009). *Fixed Effects Regression Models*. California: SAGE Publications, Inc.

Anjum, M., Ali, S., Imad-ud-din, M., Subhani, M., Anwar, M., Nizami, A.-S., Ashraf, U., Khokhar, M. F. (2021). An Emerged Challenge of Air Pollution and Ever-Increasing Particulate Matter in Pakistan; A Critical Review. *Journal of Hazardous Materials*, *402*, 1-15.

Balietti, A., Datta, S., & Veljanoska, S. (2022). Air pollution and child development in India. *Journal of Environmental Economics and Management*, *113*(2022 102624), 1-20.

Bellard, C., Bertelsmeier, C., Leadley, P., Thuiler, W., & Courchamp, F. (2012). Impacts of climate change on the future of biodiversity. *Ecology Letters*, *15*(4), 365-377.

Chay, K. Y., & Greenstone, M. (2005). Does air quality matter? Evidence from the housing market. *Journal of Political Economy*, *113*(2), 376-424.

Chen, X., Chen, L., Xie, W., Mueller, N. D., & Davis, S. J. (2023). Flight delays due to air pollution in China. *Journal of Environmental Economics and Management*, *119*(2023 102810), 1-21.

Dockery, D. W., Pope, C. A., Xu, X., Spengler, J. D., Ware, J. H., Fay, M. E., . . . Speizer, F. E. (1993). An Association between Air Pollution and Mortality in Six U.S. Cities. *The New England Journal of Medicine*, *329*(24), 1753-1759.

He, J., Liu, H., & Salvo, A. (2019). Severe air pollution and labor productivity: Evidence from industrial towns in China. *American Economic Journal: Applied Economics*, *11*(1), 173-201.

He, X., Luo, Z., & Zhang, J. (2022). The impact of air pollution on movie theater admissions. *Journal of Environmental Economics and Management*, *112*(2022 102626), 1-13.

Heyes, A., & Zhu, M. (2019). Air pollution as a cause of sleeplessness: Social media evidence from a panel of Chinese cities. *Journal of Environmental Economics and Management*, *98*(2019 102247), 1-20.

Hobson, M., & Rizwan, H. (2021). Integrating Air Quality Into Pakistan's Nationally Determined Contribution. Asian Development Bank.

IQAir. (2023). 2023 World Air Quality Report. IQAir.

Li, J., & Meng, G. (2023). Pollution exposure and social conflicts: Evidence from China's daily data. *Journal of Environmental Economics and Management, 121*(2023 102870), 1-26.

Lim, Y.-H., Kim, H., KIm, J. H., Bae, S., Park, H. Y., & Hong, Y.-C. (2012). Air pollution and symptoms of depression in elderly adults. *Environmental Health Perspectives, 120*(7), 1023-1028.

Loomis, D., Grosse, Y., Lauby-Secretan, B., Ghissassi, F. E., Bouvard, V., & Benbrahim-Talla, L. (2013). The carcinogenicity of outdoor air pollution. *The Lancet, 14*(13), 1262-1263.

Mayer, H. (1999). Air pollution in cities. *Atmospheric Environment*, 4029-4037.

Ministry of Climate Change. (2022). Year Book 2020-21. Islamabad: Government of Pakistan. Ministry of Climate Change.

Ministry of Finance. (2022). Chapter 16 Climate Change, Pakistan Economic Survey 2021-22. Islamabad: Government of Pakistan.

Minsitry of Finance. (2024). Chapter 17 Climate Change.Pakistan Economic Survey 2023-24. Islamabad: Ministry of Finance. Government of Pakistan.

Pan, S. (2023). Health, air pollution, and location choice. *Journal of Environmental Economics and Management, 119*(2023 102794), 1-19.

Perera, F. P. (2008). Children are likely to suffer most from our fossil fuel addiction. *Environmental Health Perspective, 116*(8), 987-990.

Power, M. C., Adar, S. D., Yanosky, J. D., & Weuve, J. (2016). Exposure to air pollution as a potential contributor to cognitive function, cognitive decline, brain imaging, and dementia: a systematic review of epidemiologic research. *Neurotoxicology, 56*, 235-253.

Sanchez-Triana, E., Enriquez, S., Afzal, J., Nakagawa, A., & Khan, A. (2014). Cleaning Pakistan's Air: Policy Options to Address the Cost of Outdoor Air Pollution. Washington DC: World Bank Group.

Welsch, H. (2006). Environment and happiness: Valuation of air pollution using life satisfaction data. *Ecological Economics, 58*(4), 801-813.

The World Bank. (2016). The cost of air pollution: Strengthening the economic case for action. The World Bank.

The World Bank. (2019). Opportunities for a Clean and Green Pakistan: A Country Environmental Analysis. The World Bank.

Xue, S., Zhang, B., & Zhao, X. (2021). Brain drain: The impact of air pollution on firm performance. *Journal of Environmental Economics and Management, 110*(2021 102546), 1-31.

Yao, Y., Li, X., Smyth, R., & Zhang, L. (2022). Air pollution and political trust in local government: Evidence from China. *Journal of Environmental Economics and Management, 115*(2022 102724), 1-31.

Zivin, J. G., & Neidell, M. (2009). Days of haze: Environmental information disclousure and intertemporal avoidance behavior. *Journal of Enviromental Economics and Management, 58*(2), 119-128.

Zivin, J. G., & Neidell, M. (2012). The impact of pollution on worker productivity. *American Economic Review, 102*(7), 3652-3673.

The Monster in "Frankenstein" and Edward Hyde: Eugenics and the Politics of Appearance

Harisankar Anirudhan, Indian Institute of Technology, India

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Lennard J Davis, in the introduction to *The Disability Studies Reader*, argued that the growth of the pseudoscience of Eugenics was primarily founded on the concept of 'normality' and its related implications in nineteenth-century Europe. The fictional character of Edward Hyde in R.L Stevenson's *The Strange Case of Dr Jekyll and Mr Hyde* best illustrates the Eugenic theory of ascribing moral deficiency to physical abnormality. Edward Hyde, who stands for the dark side of Dr. Jekyll's character, is portrayed as a short and hideous individual who resembles a troglodyte in appearance. By contrast, Dr. Jekyll is described as a tall, smooth-faced individual with every capacity for kindness and social graces. However, in Mary Shelley's *Frankenstein*, abnormal physical appearance is treated very differently. In this novel, the abnormally large and hideous monster created by Victor Frankenstein, the narrator is inherently kind and helpful but later turns vindictive and revengeful as a result of the ill-treatment and prejudice meted out to him by the 'normal' people around him. Within the narrative world of Mary Shelley's novel, the question of motives and individual morality is more complex and, unlike in Stevenson's novel, is not advertised in an individual's physical appearance. However, by portraying two highly educated European scientists as the originators of Hyde and the monster in Frankenstein, Stevenson and Mary Shelley show the mirror to the Western man who, during the nineteenth century, was constantly ascribing immorality and lack of civilization solely to the wider world outside Europe.

Keywords: Eugenics, Victorian Literature, Nineteenth-Century Literature, Physical Appearance, Colonialism, Racism

iafor
The International Academic Forum
www.iafor.org

Introduction

The characters Edward Hyde in *The Strange Case of Dr Jekyll and Mr Hyde* and Heathcliff in Emily Bronte's novel *Wuthering Heights* are the two most significant representatives of 'otherness' in nineteenth-century British literature. The physical description of Heathcliff and Hyde gives the first hint regarding the essential criminality and 'otherness' of both characters. Lockwood, upon his first meeting with Heathcliff, describes him as having the appearance of a dark-skinned gypsy who, however, has the dress and manners of an English Gentleman. Charlotte Bronte, the sister of Emily Bronte, opined that the character of Heathcliff, hailing from the black gypsy lineage, is a being of naturally perverse, vindictive, and inexorable disposition. Twenty-first-century readers can quickly notice the racist implications and Eugenic foundations of this analysis. Eugenics was a pseudoscience hugely popular in Britain during the nineteenth century. The notion of the evolutionary advantage of the fittest put forward by Charles Darwin laid the foundation for Eugenics.

In Stevenson's novel, Edward Hyde is described as pale and dwarfish with a 'nightmarish' appearance. In the words of Mr Enfield, "There is something wrong with his appearance; something displeasing, something downright detestable. I never saw a man so disliked." If the otherness of Heathcliff is the otherness of him having a Black Gypsy lineage, then the otherness of Hyde is him having a physical appearance that corresponds to his devilish psyche. If Heathcliff presented before the Victorian public a threat from the black gypsy lineage to the genteel, civilized life of the London middle class symbolized by the Linton family, Edward Hyde symbolized the monster that lay within the same civilized London society. While Edward Hyde and Heathcliff represented the exotic characters in human form in nineteenth-century British fiction, more than half a century earlier, Mary Shelley explored the possibility of creating a semi-human character that symbolized 'otherness' and exoticism from a Eugenics standpoint through her famous novel named *Frankenstein*.

The Context of *The Strange Case of Dr Jekyll and Mr Hyde*

The Strange Case of Dr. Jekyll and Mr. Hyde can also be read as a pretext for a series of actual murders that shocked London in the fall of 1888. From the end of August to November 9, 1888, five women were brutally murdered and mutilated by a man who came to be known as 'Jack the Ripper' (Cohen, 2003 p. 184). Many journalists at the time made out stories of the killer being an affluent man who later turned to crime. A narrative similar to Henry Jekyll, the well-respected and affluent London Doctor transforming into the detestable Edward Hyde (Cohen, 2003 p. 184). Hyde also tramples upon a hapless young kid in the novel. The gruesome disembowelment and removal of the organs of the victims also led investigating agencies to suspect that the criminal was a doctor. In fact, a medical practitioner named Montague John Druitt was one of the suspects in this famous case. The physical description of Hyde gives the first hint regarding the character's essential criminality and 'otherness.' In Stevenson's novel, Edward Hyde is described as pale and dwarfish with a 'nightmarish' appearance. In the words of Mr Enfield, "There is something wrong with his appearance; something displeasing, something downright detestable. I never saw a man so disliked." Edward Hyde symbolized within the narrative of this novel the hidden dark side of civilized London society.

Janice Doanes and Devon Hodges, in their scholarly article titled "Demonic Disturbances of Sexual Identity: The Strange Case of Dr. Jekyll and Mr/s Hyde" (1989), actually make the argument that, to put it more precisely, Hyde represented the threat of the 'New Woman' of Victorian England. This is a truly strange assertion, especially regarding a novel that, for many

critics, was entirely about men and their relations with each other. Stephen Gwynn, in his work *Robert Louis Stevenson*, for example, describes the story's milieu as "a community of monks," and Irving Saposnik in his scholarly article titled “The Anatomy of Dr Jekyll and Mr Hyde” published in the work *Studies in English Literature 1500-1900*, builds on Gwynn's remarks and asserts inaccurately that "for better or worse, Victoria's era, despite its female monarch, was male-centered; and a story so directed at the essence of its moral behavior is best seen from a male perspective" (Saposnik, 1971, p. 719).

However, Doane and Hodges take a more comprehensive look at the character of Hyde and see in him many traits which were conventionally associated with femininity in nineteenth-century England. This ranges from his trembling hand, light and agile walk, and the general hysteria in the character of Hyde. All of these traits are antinomical to the firm hand, formal walk, as well as the generally respectable and stable character of Dr. Jekyll, who symbolizes middle-class Victorian masculinity in this novel.

Eugenic Undertones in *The Strange Case of Dr Jekyll and Mr Hyde*

However, the Eugenical foundations of the 'moral narrative' in Stevenson's novel are even more crucial than a gender-based analysis of the novel.

> It is also worth noting the interesting triangulation of eugenicist interests. On the one hand, Sir Francis Galton was a cousin to Charles Darwin, whose notion of the evolutionary advantage of the fittest lays the foundation for Eugenics and also for the idea of a perfectible body undergoing progressive improvement. As one scholar has put it, "Eugenics was in reality applied biology based on the central biological theory of the day, namely the Darwinian theory of evolution". Darwin's ideas serve to place disabled people along the wayside as evolutionary defectives to be surpassed by natural selection. So, Eugenics became obsessed with the elimination of "defectives," a category which included the "feebleminded," the deaf, the blind, the physically defective, and so on. (Davis, 1997, p. 3)

The system of Eugenics founded by Francis Galton was simply a ranked system of essential physical and mental human traits such as height, physical fitness, and intelligence. The problem with this system, as Lennard J Davis argues in his work *The Disability Studies Reader* (1997), is that it tended to group together criminals, poor people, as well as people with physical and mental disabilities. It is abundantly clear how the short and hideous character of Edward Hyde, who is violent and addicted to all kinds of human vices, is a perfect representation of the Eugenical system according to which an individual with a physical disability is classified in the same group of undesirable individuals as criminals and mentally defective individuals.

> In 1911, Pearson headed the Department of Applied Statistics, which included Galton and the Biometric Laboratories at University College in London. This department gathered eugenic information on the inheritance of physical and mental traits, including "scientific, commercial, and legal ability, but also hermaphroditism, hemophilia, cleft palate, harelip, tuberculosis, diabetes, deaf-mutism, polydactyly (more than five fingers) or brachydactyly (stub fingers), insanity, and mental deficiency" (ibid., 38–9). Here again, one sees a strange selection of disabilities merged with other types of human variations. All of these deviations from the norm were regarded in the long run as contributing to the disease of the nation. (Davis, 1997, p. 6)

Landscape and Society in *The Strange Case of Dr Jekyll and Mr Hyde*

R.L Stevenson seemingly had an appreciation of urbanity and close societal relations that characterise urban civilisation. Evidence of the same can be seen from his disparaging remarks about Thoreau, who was known for *Walden* that advocated periodic solitude away from the rigours of city life, as well as his appreciation for the classic work *Crime and Punishment* written by the seminal Russian writer Fyodor Dostoevsky. *Crime and Punishment*, similar to Stevenson's novel, had an urban setting that aided the protagonist's crime. Stevenson wrote about Dostoevsky's work. In a letter to his friend John Addington Symonds. "Raskolnikoff is easily the greatest book I have read in ten years; I am glad you took to it. Many find it dull: Henry James could not finish it: all I can say is, it nearly finished me. It was like having an illness." Stevenson's disparaging remarks about Thoreau:

> In one word, Thoreau was a skulker. He did not wish virtue to go out of him among his fellow men but slunk into a corner to hoard it for himself. He left all for the sake of certain virtuous self-indulgences. It is true that his tastes were noble; that his ruling passion was to keep himself unspotted from the world; and that his luxuries were all of the same healthy order as cold tubs and early rising. But a man may be both coldly cruel in the pursuit of goodness and morbid even in the pursuit of health. (Buranelli, 1957, p. 257)

Similar to Thoreau, who, in Stevenson's estimation, is averse to enjoying the company of his fellow human beings, the character of Hyde in Stevenson's novel avoids human company. It is strange to compare a fictional antagonist like Hyde to a man with strong moral sensibilities like Henry David Thoreau. However, from the perspective of Stevenson, the flaws of Thoreau and Hyde lie a lot in their avoidance of their fellow men. However, in contrast to Thoreau, who abstained from the world and people around him to live as a teetotaller, Hyde abstained from interacting with the people around him but plunged headlong into the life in the dark alleys of London city to live a life of senseless abandon. If excessive reticence to worldly pleasures is what Stevenson criticizes Thoreau for, senseless enjoyment of the same causes the downfall of both Hyde and Jekyll. Here, then, comes the question of what is the apt attitude to worldly pleasures. The moderate Jekyll, who in Stevenson's characterization stands for the ideal gentleman with the correct attitude to the world and society around him, willingly divides himself to create the monster of Hyde. Moderation, which Stevenson applauds while unfavourably evaluating Thoreau, is a failed virtue within the context of *The Strange Case of Dr Jekyll and Mr Hyde* as it eventually leads to avarice and ruin. A fictional characterization of Thoreau was the option Stevenson never even considered, and it actually might have been the solution.

The Narrative of Creation and Eugenical Undertones in *Frankenstein*

Mary Shelley's *Frankenstein* and R.L Stevenson's *The Strange Case of Dr Jekyll and Mr Hyde* signify two contrasting aspects of human ingenuity and associated scientific progress. In the former, the scientist creates a new life form by assembling various body parts and infusing life into them, whereas in the latter, the scientist splits himself into two along the moral polarity, thereby unleashing the monster of Edward Hyde. While Stevenson makes it clear through the narrative of his novel that readers are supposed to hate Hyde on account of his very appearance, such a perspective is altogether alien to the narrative in *Frankenstein*. It should be mentioned that the creator of the monster, who is the scientist named Victor Frankenstein, is horrified upon witnessing his creation, however, as the narrative in the novel proceeds, it becomes clear that

the monster is a more complex character who elicits sympathy on account of its fate more than aversion on account of its appearance.

As the writer Kim Hammond mentions in his article titled “Monsters of Modernity: *Frankenstein* and modern environmentalism," "Shelley presents us with a 'being' made monstrous, but not by his 'unnaturalness' nor because Victor somehow transgresses natural or God-given boundaries, but rather because Victor abandons the creature, unequipped, to a hostile world, taking no responsibility for his work” (Hammond, 2004, p. 186).

Traditional interpretations, such as those by Langdon Winner in *Autonomous Technology - Technics-out-of-Control as a Theme in Political Thought* (1978) look at *Frankenstein* as a novel that illustrates humanity's problematic relationship with science and technology. However, comparing Stevenson's novel and Shelly's novel along the lines of the narrative surrounding unleashing a Eugenically problematic and hideous being into the world leads to different questions altogether.

Frankenstein (1818) as, a novel released before the advent of the Eugenical thought process in Europe and at the time of unprecedented industrial revolution and scientific progress, raises the important issue of human ingenuity and scientific prowess creating an undesirable being. While the scientist in Stevenson's novel indirectly takes accountability for the evil deeds of his alter ego Hyde by treating Hyde's victims for free, the scientist in Shelly's novel altogether abandons responsibility for his creation on account of his hideous form thereby transforming a being who was altruistically inclined into a revengeful monster.

Citing Ulrich Beck's work titled *Risk Society, Towards a New Modernity* (1992), Kim Hammond, in his article titled "Monsters of Modernity: Frankenstein and Modern Environmentalism", argues that it was the social isolation and the hubris of Victor Frankenstein that created the catastrophe in which a hideous monster was unleashed into the world. Hammond suggests that if Frankenstein had been less egotistical and more democratic in his spirit, the catastrophe could have been avoided (Hammond, 2004, p.192). However, while plausible on the surface, this is too simplistic of a proposition because a scientific endeavour of the type shown in Shelly's novel does not lend itself to a cooperative effort as it can easily be scuttled by others instead of being ethically reimagined. At this stage, it becomes a question of whether one should retreat into the safety of a known past or venture headlong into the new future with an attitude of calculated risk-taking. Besides, as Hammonds himself argues, it was the apathy and uncountability of Frankenstein towards his creation on account of its strange appearance that caused the tragedy rather than the creation of the creature itself.

> In part, this is a cautionary tale concerned with the controllability and predictability of our technological creations with our ability to assess their consequences. In Baldick's summary of the popularised skeleton story of Frankenstein, Victor 'creates a living being.and the creature turns against him and runs amok'.Yet this common sketch of Frankenstein misses vital aspects of Shelley's tale, in particular that Victor takes no responsibility for his creation and that it is Victor's abandonment of the 'being' that is the name of the 'being's' real monstrosity. Thus, Frankenstein turns on issues of risk and uncertainty in relation to responsibility and accountability. (Hammond, 2004, p. 190)

While Stevenson's novel can be accused of adhering strictly to the Eugenical thought process that clubbed together physical infirmities with criminal behavior, Shelly's novel, in a way, parodies the Eugenical ambitions with the creation of a monster that is hideous and undesirable

but with imposing height and unbelievable physical prowess that are desirable traits in the Eugenic world view. As Marshall Brown states in his article titled "Frankenstein: A Child's Tale" (2003):

> So, at first appearance, the monster is said to be "of gigantic stature" (16). At eight feet, though (indeed, "7 or eight feet" in the original manuscript [Notebooks 85]), we would have to call it impressive rather than titanic. The monster does leap across vast chasms of ice and is "capable of scaling the overhanging sides of Mont Saleve" (55); it runs "with greater speed than the flight of an eagle" (110), as Frankenstein says at one place, or "with more than mortal speed" (155), as he says at another. (Brown, 2003, pp. 149-150)

The monster's abandonment by Victor Frankenstein can be interpreted as the dilemma of the Eugenic scientist or enthusiast at the realization that what comes out of his efforts may not be an ideal human being but a weird monstrosity that defies categorization.

Conclusion

An analysis of Frankenstein and The Strange Case of Dr. Jekyll and Mr. Hyde, as I have elaborated here, makes it clear that these novels run parallel to each other. If *Frankenstein* demonstrates the dangers of unaccountability in scientific experimentation and is remarkably prescient about related future developments in science, such as GM seeds, *The Strange Case of Dr. Jekyll and Mr. Hyde* demonstrates that even within an urban society consisting of people of the same race and same social class (mostly), the hidden monstrosity of the desires and passions of urban men of Victorian England often finds a way out. The thin veneer of urban civilization is hardly a deterrent to prevent the emergence of the likes of Mr Hyde.

References

Beck, U. (1992). *Risk society: Towards a new modernity*. Sage Publications.

Brontë, E. (2012). *Wuthering Heights*. Nick Hern Books.

Brown, M. (2003). "Frankenstein": A Child's Tale. *NOVEL: A Forum on Fiction*, *36*(2), 145–175. http://www.jstor.org/stable/1346124

Buranelli, V. (1957). The Case Against Thoreau. *Ethics*, *67*(4), 257–268. http://www.jstor.org/stable/2379656

Cohen, E. D. (2003). Hyding the Subject?: The Antinomies of Masculinity in "The Strange Case of Dr. Jekyll and Mr. Hyde." NOVEL: A Forum on Fiction, 37(1/2), 181–199. http://www.jstor.org/stable/30038535

Davis, Lennard J., and Sanchez, R. (2021). *The Disability Studies Reader*. Routledge.

Doane, J., & Hodges, D. (1989). Demonic Disturbances of Sexual Identity: The Strange Case of Dr. Jekyll and Mr/s Hyde. *NOVEL: A Forum on Fiction*, *23*(1), 63–74. https://doi.org/10.2307/1345579

Dostoyevsky, F. (2013). *Crime and punishment: Unabridged garnett translation*. E-artnow.

Hammond, K. (2004). Monsters of modernity: Frankenstein and modern environmentalism. *Cultural Geographies*, *11*(2), 181–198. http://www.jstor.org/stable/44250971

Nobes, P., & Shelley, M. W. (2008). *Frankenstein*. Oxford University Press.

Saposnik, I. S. (1971). The Anatomy of Dr. Jekyll and Mr. Hyde. *Studies in English Literature, 1500-1900*, *11*(4), 715–731. https://doi.org/10.2307/449833

Stevenson, R. L. (2020). *The strange case of dr jekyll and mr hyde*. Librofilio.

Thoreau, H. D. (n.d.). *Walden*. Walden | Project Gutenberg. https://www.gutenberg.org/files/205/205-h/205-h.htm

Trewin, A., Brontë, E., & Peck, H. (2019). *Wuthering Heights*. Penguin Books.

Winner, L. (1978). *Autonomous Technology - Technics-out-of-Control as a Theme in Political Thought*. The MIT Press.

Environmental Sustainability Evaluation in Sub-Saharan Africa: Energy Consumption and Environmental Degradation

Josephine Andrea Niangue, Sophia University, Japan

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Economic development requires intensive energy consumption, which has caused severe environmental degradation. Moreover, achieving environmental sustainability is still challenging in developing countries where the environment is experiencing a significant degradation trend. The research aims to evaluate the environmental sustainability and the energy consumption patterns in Sub-Saharan Africa. In doing so, the spatially varying relationship between energy consumption and environmental degradation were considered. The Exploratory Spatial Data Analysis (ESDA) was applied. This research also stands apart from prior ones by incorporating the interdisciplinary theoretical approach the Environmental Kuznets Curve (ECK). The result displays the energy consumption pattern for 2000 and 2022. The findings can contribute to appropriate policies recommendations for energy consumption in African regions.

Keywords: Environmental Sustainability, Energy Consumption, Environmental Degradation

iafor
The International Academic Forum
www.iafor.org

Introduction

Energy consumption in Sub-Saharan Africa is heavily reliant on biomass and fossil fuels (Lahnaoui et al., 2024). As energy demand rises, there is a heightened risk of environmental degradation due to the over reliance on unsustainable energy sources like trees and precious minerals (Kagzi et al., 2024). Li and Lin (2015) demonstrated that rapid urbanization and industrialization also contribute to a rise in energy consumption in the region. Moreover, other studies found that it is challenging for Sub-Saharan African countries to provide reliable and sustainable energy to their populations (Agoundedemba et al., 2023). Individuals' lack of access to electricity led to their reliance on biomass as an alternate energy source for domestic activities like cooking. Consequently, the escalation of anthropogenic activities such as deforestation and mining present a significant environmental risk owing to energy extraction (Sonter et al., 2020). Furthermore, urbanization leads to the expansion of informal settlements, which increases energy needs, and pressures on natural environment (Yu et al., 2024). Consequently, cities tend to be ill-equipped to manage energy use from the environment, contributing to biodiversity loss and environmental degradation (Voumik & Sultana, 2022).

Numerous studies have attempted to address the challenges environmental degradation generated from economic activities. The environmental Kuznets curve theoretical approach stipulates that the early phases of economic development are linked to a rise in environmental degradation (Grossman & Krueger, 1991). This is due to the constant use and exploitation of natural resources and industrialization. So as African nations are trying to rise there are environmental consequences. The Environmental Kuznets Curve (EKC) has been the subject of considerable discussion, particularly regarding developing nations such as Sub-Saharan Africa, where economic growth, energy consumption, and environmental challenges converge.

Past studies have been done on climate change impacts on the environment in Sub-Saharan Africa. Some of these studies highlighted the energy consumption and its impact on the environment. Shi and Umair (2024) focused on the balance between industrialization, agriculture, and ecosystem preservation. Islam and Winkel (2017) studied climate change impact on the environment and found that regional poverty, lack of access to resources, and gender inequalities cannot ensure sustainable benefits in all aspects of society, especially for the marginalized groups. Clement and Isbi (2019) focused on sustainable development projects in the region and found that insufficient evaluation of the successes and challenges of such projects negatively impacted policy and sustainability. Besides, some research shed light on the role of indigenous knowledge and innovative solutions to environmental challenges (Boiral et al., 2020). Additionally, studies attributed the sustainable, well-being, and long-term ecological balance to environmental and socio-economic factors (Hariram et al., 2023). Farrukh and colleagues (2023) highlighted that a lack of effective management of water, land, and forest resources results in overuse and degradation. These findings appear to be convincing to some extent regarding environmental sustainability. However, they are insufficient to explain the reasons for the environmental sustainability challenges and energy consumption trends in Sub-Saharan Africa. Moreso, there are several studies that evaluate environmental sustainability in Sub-Saharan Africa without the role of space. However, they did not sufficiently tackle the regional environmental sustainability and energy consumption patterns in Sub-Saharan Africa. It is against this backdrop that this paper attempts to analyze the environmental sustainability and energy consumption patterns in the Sub-Saharan Africa region. Moreover, there is a lack of studies with the role of space (physical location). This research also evaluates the spatial distribution of energy consumption. The spatial data analysis is a successful tool to give an effective policy recommendation especially at regional level.

Methodology

Study Area

The forty-eight (48) Sub-Saharan African countries are the study's geographic coverage. The United Nations Population Division (2024) estimates that there are roughly 1,259,902.35 billion people living in Sub-Saharan African nations. Sub-Saharan Africa continues to exhibit the lowest per capita energy consumption (Deichmann et al., 2011). The region's expected economic growth, the population and accelerating urbanization process are closely linked to the rising demand for energy consumption.

Sub-Saharan Africa is classified into four distinct economic and political categories, each of which implements an environmental program. The Economic Community of West African States (ECOWAS) comprises fifteen countries located in West Africa. The Southern African Development Community (SADC) includes fifteen nations located in the southern part of the continent. The Intergovernmental Authority on Development (IGAD) consists of eight-member states from the Horn of Africa, the Nile Valley, and the African Great Lakes region. Lastly, the Economic Community of Central African States (ECCAS) is made up of eleven countries in Central Africa.

Despite Sub-Saharan Africa being a less contributor to environmental pollution in comparison to other continents such as Asia, the rising energy consumption can contribute to environmental degradation. Besides, many nations do not have the necessary capacity to respond and adapt (Deichmann & Zhang, 2013). Some studies show that energy consumption in Sub-Saharan Africa significantly relied on traditional biomass fuels such as wood, charcoal, and dung for household requirements (Smith et al., 2015). Biomass fuels are frequently the preferred energy source in rural areas since they can typically be obtained locally without incurring additional costs (Karekezi & Kithyoma, 2002). However, these energy sources cause environmental issues and health issues for the people who use them, especially women and children (Biran et al., 2004; Bryceson & Howe, 1993). The 10 nations facing the greatest risk from climate change effects are from Sub-Saharan Africa, specifically Sierra Leone, South Sudan, Nigeria, Chad, Ethiopia, Central African Republic, and Eritrea (Sarkodie, 2018).

Data Collection

In this study, the data was collected from the International Energy Agency (IEA, 2024). The Energy Consumption data in Sub-Saharan Africa was collected from 1980 to 2022 and the Energy Total Final Consumption by Source was collected from 1990 to 2022 as shown in figures 1 and 4.

Research Variable. This research uses exploratory spatial data analysis methods to analyze the spatial distribution of energy consumption and the environmental degradation issues. The research used Geoda and QGIS software packages to analyze the distribution of energy consumption in Sub-Saharan Africa.

Based on the literature review, the current study uses two variables: energy consumption and the Energy Total Final Consumption by Source. The variable helps to understand the energy consumption pattern in Sub-Saharan Africa as shown in Figure 1. Then, the study compared

the distribution of energy consumption for the year 2000 and 2022. The shapefile was then taken from QGIS.

Data Analysis

Exploratory Spatial Data Analysis (ESDA). Exploratory Spatial Data Analysis (ESDA) helps to identify the pattern of data and summarize the main characteristics of the data. The conventional method of Exploratory Data Analysis (ESDA) helps to understand the spatial relationship between the variables and their evolution over time.

Local Spatial Autocorrelation (LISA). Anselin and colleagues (2007) state that global spatial autocorrelation is utilized to determine overall clustering and spatial correlation, but it does not provide a graphical representation of clusters or outliers.

Spatial Distribution Map. The ESDA was used at two stages in time: 2000 as an initial year and 2022 as the final year to draw the spatial distribution maps. The geographical distribution maps aid in understanding the spatial pattern and distribution of energy consumption in Sub-Saharan African nations. They provided a general overview of the regional variation of energy consumption in Sub-Saharan African countries. Lighter color indicates a low amount of energy consumption, while the darker color signifies a high value of energy consumption.

The empirical findings are organized into two sections. The first portion discusses the geographical analysis of 48 Sub-Saharan African countries at the national level, while the second section presents the national level LISA analysis to identify high-high and low-low clusters within nations.

Results

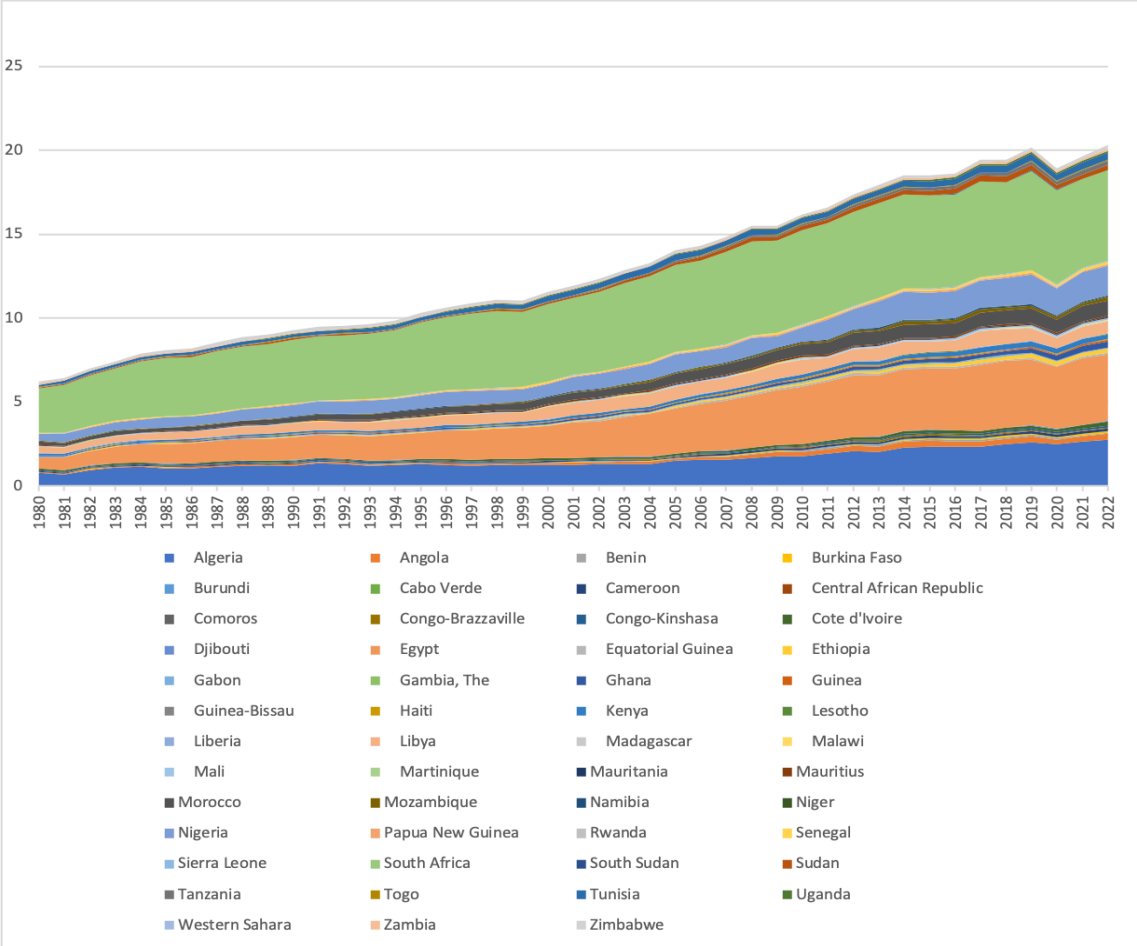
Energy Consumption in Sub-Saharan Africa

South Africa uses the most energy, followed by Egypt in second place and Algeria. Nigeria is ranked fourth. South Africa is the most industrialized country in the continent. The country displays the highest energy consumption. Although the nation’s energy mix is varied, coal accounts for a sizable amount of it, which raises per capita consumption. Recent events suggest that growing electricity costs and environmental concerns are driving a move toward liquefied petroleum gas. Nigeria has the largest population in Africa, yet its per capita energy consumption is still quite low. This is ascribed to economic concerns, infrastructure issues, and the fact that many places have limited access to dependable energy.

Democratic Republic of the Congo (DRC) has one of the lowest per capita energy consumption rates in the region, despite having substantial hydroelectric potential. Challenges such as political instability and inadequate infrastructure have hindered energy development.

Sub-Saharan Africa's energy consumption is among the lowest globally. Efforts to enhance energy access are ongoing, with initiatives focusing on renewable energy sources and infrastructure development. However, disparities persist, and many countries continue to face challenges in meeting the energy needs of their populations.

Figure 1: Energy Consumption in Sub-Saharan Africa



Source: International Energy Agency, 2024

Mapping Energy Consumption in Sub-Saharan Africa Countries

This result outlines the overall energy consumption landscape across Sub-Saharan African nations (Figure 2). It involves an analysis and quantification of the spatial distribution of energy use within the region. The regional distribution of energy consumption in Sub-Saharan Africa, generated reveals major discrepancies throughout the continent. The map helps to examines and visualizes the relationship between energy use and a variety of socioeconomic and geographical characteristics. The analysis of the distribution pattern is shown in Figure 2.

The map (Figure 2) shows that Southern African countries, particularly South Africa, have the highest energy usage. The darker tones on the map imply higher energy consumption. South Africa's industry, which mainly relies on coal-powered electricity generation, is a significant contributor to the country's high energy consumption. Urban centers in Western Africa, such as Nigeria urbanized areas, have greater energy consumption rates. Despite infrastructure issues, Nigeria's energy demand has increased due to population density and urbanization. These locations are marked with intermediate shades on the map.

Moderate Consumption Zones. East Africa for instance, Kenya and Ethiopia consumption patterns vary throughout the region. While Kenya consumes moderate amounts of energy, Ethiopia's consumption is comparatively modest, despite producing significant amounts of hydroelectric electricity. Many rural communities continue to have limited access to power, resulting in lower consumption.

Low Consumption Areas. Democratic Republic of Congo has some of the lowest energy consumption levels, as shown by the colors that are lighter on the map. Despite the potential for hydroelectric electricity in the Democratic Republic of Congo, political turmoil and a lack of infrastructure limit universal energy availability. Some countries frequently struggle with inadequate energy infrastructure, resulting in considerable regional disparities in energy usage. For instance, In the rural Areas the low consumption rates are due to a lack of grid access and reliance on traditional biomass fuels.

The geographical landscape significantly affects energy consumption patterns in Sub-Saharan Africa, where coastal and urban regions typically have a better energy access compared to inland and rural locales. The availability of energy resources, such as the hydroelectric potential found in the Congo Basin and the extensive coal reserves in South Africa, further influences this access.

According to Szabó and colleagues (2021), approximately 56% of the Sub-Saharan African population lacks access to modern energy sources. In contrast to East and South Asia, where the figures stand at 3% and 11%, respectively (Szabó et al., 2021). Figure 2 illustration shows that energy consumption in some African countries has experienced minimal changes. Some countries remain static. Sub-Saharan Africa is recognized as the region with the most significant energy access shortfall worldwide. Projections suggest that household energy consumption will rise as more families gain access to energy and as appliance ownership increases (Dagnachew et al., 2020).

The causal relationships between energy consumption and economic growth exhibit significant variation across different nations (Odhiambo, 2010). This finding is also consistent with the outcomes of this study. The most developed African nations exhibit a higher energy consumption. The recent energy consumption patterns in Sub-Saharan Africa as shown in Figure 2 reveal several critical challenges, highlighting a considerable dependence on traditional biomass fuels, such as wood, charcoal, and dung, to meet household energy needs.

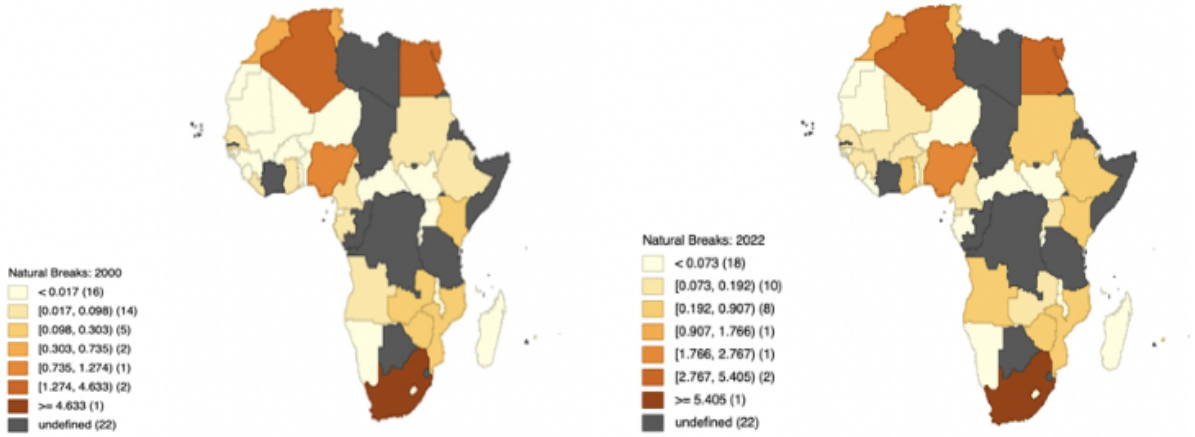
A nuanced understanding of the geographical disparities in energy consumption can help in formulating regional policies within the same economic group of Sub-Saharan African countries. In Mali, energy consumption has seen an upward trend. Similarly, Ethiopia has experienced increased energy consumption during the same period, with hydropower serving as a vital energy source. Ethiopia is home to the Grand Ethiopian Renaissance Dam (GERD), one of Africa’s largest hydroelectric projects. Nonetheless, the reliance on hydropower poses challenges due to the region's susceptibility to climate variability and droughts, which can adversely affect water flow to hydroelectric facilities.

In Mozambique and Zambia, energy consumption has also risen (Figure 2). Despite the promise of these energy sources, several obstacles persist, including inadequate infrastructure, high capital expenditures for renewable energy initiatives, and disparities in energy access. Many Sub-Saharan African nations are now prioritizing a transition to more sustainable energy systems, motivated by both domestic requirements and global climate change obligations.

South Africa leads in energy consumption, followed by Egypt and Algeria. The principal findings indicate that economic activity significantly influences both supply and demand growth. However, this growth is constrained by outdated infrastructure, leading to inefficiencies and increased conversion losses (Shabalov et al., 2021).

Figure 2: Spatial Distribution of Energy Consumption in Sub-Saharan Africa Countries

a) Distribution of Energy Consumption in 2000 b) Distribution of Energy Consumption in 2022



Note: QGIS 3.42 was used to generate the map
Source: Author

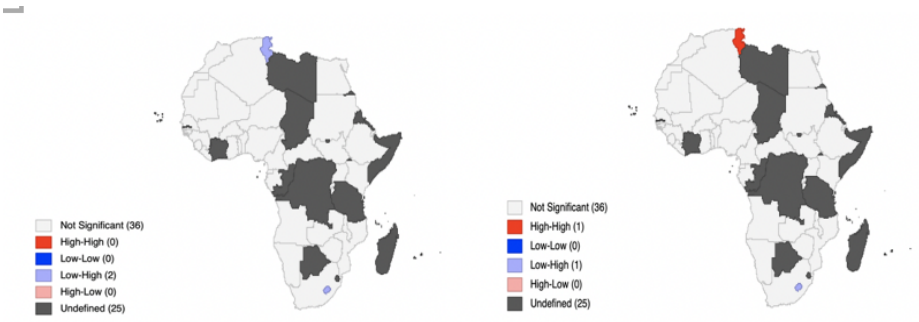
Local Spatial Autocorrelation (LISA)

The result indicates the high-high and low-low clusters for the years 2000 and 2022 (Figure 3).

The LISA map results are categorized into four groups: one is clusters of high-valued countries surrounded by high-value neighbors and low-valued countries surrounded by low-value neighbors. The other two are outliers: high-value regions surrounded by low-value neighbors, or low-value regions surrounded by high valued neighbors. The overall spatial patterns of clusters in both maps (initial year and final year) are similar, which means there is spatial persistence. For the year initial year 2000, the LISA map display two low-high and the final year shows one high-high.

Figure 3: LISA Map

a) LISA Cluster Map in 2000 b) LISA Cluster Map in 2022



Note: QGIS 3.42 was used to generate the map and Geoda was used to generate LISA
Source: Author

Environmental Degradation and Energy Source Africa

High levels of indoor air pollution from burning biomass for cooking and heating are damaging to human health (Prasad, 2011). Biomass including firewood and charcoal, continues to be a prevalent energy source in numerous regions of Africa alongside fossil fuels. Although classified as a renewable resource, its excessive utilization has led to considerable environmental challenges. The widespread deforestation and land degradation resulting from the extensive harvesting of trees for firewood and charcoal production are particularly concerning. In nations such as Ethiopia, Uganda, and Kenya, this reliance has resulted in diminished biodiversity, decreased soil water retention, and heightened desertification. Additionally, traditional biomass combustion methods contribute to air pollution, posing health hazards to local communities (Bishop et al., 2019).

Energy resources in Africa, especially fossil fuels like coal, oil, and natural gas, play a major role in environmental damage. The burning of these fuels emits carbon dioxide (CO_2) and other greenhouse gases into the air, speeding up climate change. African nations rich in fossil fuel resources, such as Nigeria and South Africa, depend on these energy sources for economic growth, yet their extraction and utilization cause significant environmental harm. This is in alignment with the initial stage of Environmental Kuznets Curve. In South Africa, coal extraction significantly contributes to deforestation, soil degradation, and air contamination. The combustion of coal to generate electricity emits significant amounts of CO_2, a major contributor to global warming (Oberschelp et al., 2019).

The dependence on hydropower as a sustainable energy source in certain African nations also entails environmental repercussions. Although hydropower is classified as renewable, the establishment of large dams can significantly disrupt local ecosystems and biodiversity. The creation of dams and reservoirs often results in the inundation of extensive areas, displacing both human populations and wildlife. Furthermore, the modification of natural water cycles can disturb aquatic ecosystems and may contribute to the decline of fish species, which are essential for the livelihoods of numerous African local communities. The Inga Dam initiative in the Democratic Republic of Congo exemplifies the delicate balance between the demand for energy and the potential ecological damage involved (Schreiner et al., 2021).

Although solar and wind energy are often promoted as environmentally friendly alternatives, they are not without their own ecological issues. The manufacturing of solar panels and wind turbines necessitates the extraction of various metals, including cobalt, lithium, and rare earth elements, which can adversely impact local ecosystems. In regions such as the Democratic Republic of Congo, where a substantial amount of cobalt is sourced, mining activities have led

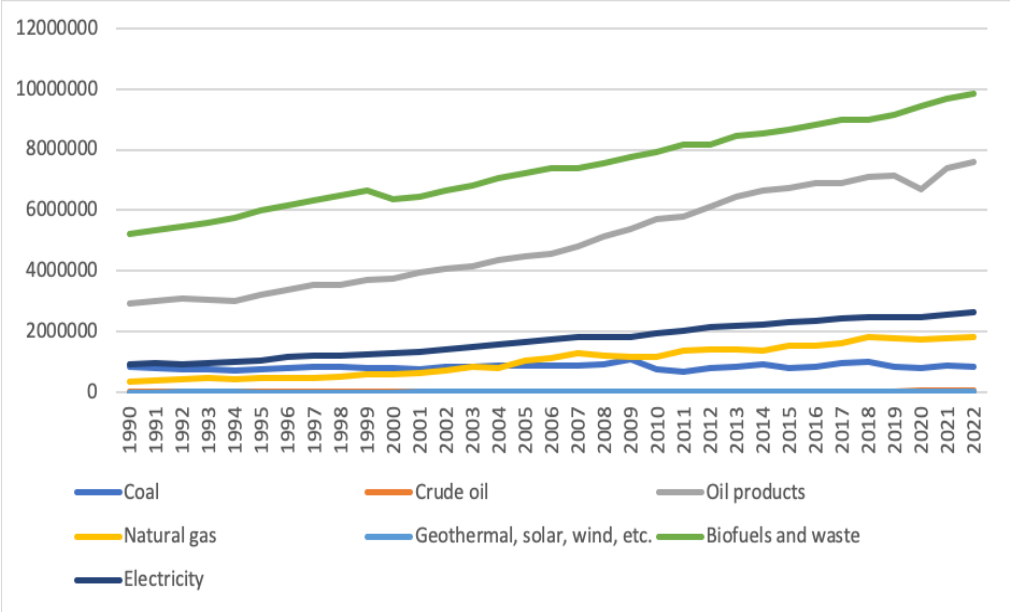
to environmental degradation characterized by soil erosion, deforestation, and water contamination. While these renewable energy sources play a crucial role in diminishing dependence on fossil fuels, the associated mining operations present considerable environmental challenges (Goodman, 2020).

The graph illustrates the total final energy consumption by source in Africa. Various energy sources are utilized in Sub-Saharan Africa, some of which have detrimental effects on the environment and contribute to ecological degradation.

Africa possesses over 40% of the world's reserves of cobalt, manganese, and platinum, which are essential minerals for battery and hydrogen technologies. Currently, South Africa, the Democratic Republic of the Congo, and Mozambique play a significant role in global production of these minerals (IEA, 2024).

In Sub-Saharan Africa, 74.9% of electricity generation is derived from the combustion of natural gas, coal, and oil. Biofuels and waste accounted for 39% of energy sources, while oil contributed 26% (IEA, 2024). Furthermore, approximately 80% of the population in sub-Saharan Africa relies on solid fuels such as wood, charcoal, and coal for cooking (Prasad, 2011).

Figure 4: Energy Total Final Consumption by Source in Africa



Source: International Energy Agency, 2024

Countries like South Africa, which has a relatively high per capita income in comparison to other Sub-Saharan nations, have witnessed both significant energy consumption and notable environmental degradation, such as air pollution from coal-fired power plants (Kohnert, 2024). Conversely, many other nations in the region, such as Ethiopia and Rwanda, show progress in environmental sustainability, relying on renewable energy sources and low-carbon development strategies.

In the context of Sub-Saharan Africa, the Environmental Kuznets Curve (EKC) hypothesis has shown mixed results. While some countries have experienced economic growth alongside improvements in environmental quality, many still face significant challenges. The relationship between energy consumption, and environmental degradation may not follow the standard

EKC curve due to factors such as low levels of industrialization, dependence on natural resources, and weak environmental policies.

Conclusion and Recommendations

This study aimed to do exploratory geographical data analysis to examine the distribution of energy consumption across countries. The findings reveal that in some African nations there were no significant change in energy consumption over the years due to the traditional source of energy. Few countries are experiencing a higher energy consumption over time due to their industrialization. The findings give policy-relevant insights and conclusions for geopolitical and economic decisions. This can also contribute to policy recommendations, particularly in Sub-Saharan Africa, where there is little to no data. The policy advice can contribute to drawing regional environmental protection policies, increasing technology and research, and should also be highlighted by government policy. A solution to attain environmental sustainability is achievable, but it requires the commitment of the government, strong institutions, private sector, and international organizations.

Mapping energy consumption serves as a valuable resource and base for policymakers, African economic community and development communities to pinpoint areas with the most pressing energy deficiencies. A strong emphasis on project initiatives can be done to enhance energy access in economically disadvantaged communities through off-grid solutions, including solar energy systems and rural electrification initiatives.

In the context of Sub-Saharan Africa, the Environmental Kuznets Curve (EKC) hypothesis highlights the necessity of implementing sustainable development strategies that balance economic advancement with environmental stewardship. Essential policy initiatives should include the promotion of renewable energy alternatives, such as solar, wind, and hydroelectric power, which can help alleviate the ecological consequences associated with energy consumption. Additionally, it is crucial to enhance environmental regulations, boost energy efficiency, and invest in green technologies to mitigate the negative impacts of economic growth on the environment.

A significant area of policy emphasis should be on enhancing access to modern energy services for all communities, especially in rural regions, to diminish dependence on traditional biomass and foster the adoption of cleaner energy options. Moreover, fostering international collaboration, along with providing financial and technical assistance for sustainable energy infrastructure, is imperative to address regional environmental challenges.

References

Agoundedemba, M., Kim, C. K., & Kim, H. G. (2023). Energy status in Africa: challenges, progress and sustainable pathways. *Energies*, *16*(23), 7708.

Anselin, L., Sridharan, S., & Gholston, S. (2007). Using exploratory spatial data analysis to leverage social indicator databases: the discovery of interesting patterns. *Social Indicators Research*, *82*, 287-309.

Biran, A., Abbot, J., & Mace, R. (2004). Families and firewood: a comparative analysis of the costs and benefits of children in firewood collection and use in two rural communities in sub-Saharan Africa. *Human Ecology*, *32*, 1-25.

Bishop, S. R., Trossero, M. A., & Tchindjang, J. M. (2019). The Sustainability of Biomass Energy in Africa. *Renewable and Sustainable Energy Reviews*, *42*, 982-989.

Boiral, O., Heras-Saizarbitoria, I., & Brotherton, M. C. (2020). Improving environmental management through indigenous peoples' involvement. *Environmental Science & Policy*, *103*, 10-20.

Bryceson, D. F., & Howe, J. (1993). Rural household transport in Africa: Reducing the burden on women?. *World development*, *21*(11), 1715-1728.

Clement, M., & Isbi, Y. (2019). Impacts of CDM projects on sustainable development: Improving living standards across Brazilian municipalities?. *World Development*.

Dagnachew, A. G., Poblete-Cazenave, M., Pachauri, S., Hof, A. F., Van Ruijven, B., & Van Vuuren, D. P. (2020). Integrating energy access, efficiency and renewable energy policies in sub-Saharan Africa: a model-based analysis. *Environmental Research Letters*, *15*(12), 125010.

Deichmann, U., & Zhang, F. (2013). *Growing green: the economic benefits of climate action*. World Bank Publications.

Deichmann, U., Meisner, C., Murray, S., & Wheeler, D. (2011). The economics of renewable energy expansion in rural Sub-Saharan Africa. *Energy policy*, *39*(1), 215-227.

Farrukh, B., Younis, I., & Longsheng, C. (2023). The impact of natural resource management, innovation, and tourism development on environmental sustainability in low-income countries. *Resources Policy*, *86*, 104088.

Goodman, J. (2020). Cobalt Mining and the Environmental Toll in Africa: A Case Study. *Environmental Development, 35*, 35-46.

Grossman, G. M., & Krueger, A. B. (1991). *Environmental Impacts of a North American Free Trade Agreement*. National Bureau of Economic Research Working Paper Series. https://www.nber.org/papers/w3914

Hariram, N. P., Mekha, K. B., Suganthan, V., & Sudhakar, K. (2023). Sustainalism: An integrated socio-economic-environmental model to address sustainable development and sustainability. *Sustainability*, *15*(13), 10682. https://doi.org/10.3390/en16237708

International Energy Agency. (2024). World energy outlook 2024.

Islam, N., & Winkel, J. (2017). Climate change and social inequality.

Kagzi, M., Dagar, V., Doytch, N., Krishnan, D., & Raj, M. (2024). Curbing environmental degradation to balance sustainable development: Evidence from China. *Environmental and Sustainability Indicators, 24*, 100465.

Karekezi, S., & Kithyoma, W. (2002). Renewable energy strategies for rural Africa: is a PV-led renewable energy strategy the right approach for providing modern energy to the rural poor of sub-Saharan Africa?. *Energy policy, 30*(11-12), 1071-1086.

Kohnert, D. (2024). The impact of the industrialized nation's CO_2 emissions on climate change in Sub-Saharan Africa: Case studies from South Africa, Nigeria and the DR Congo.

Lahnaoui, A., Venghaus, S., & Kuckshinrichs, W. (2024). Assessing the drivers of energy supply and demand in Sub-Saharan Africa. *Energy Strategy Reviews, 54*, 101483.

Li, K., & Lin, B. (2015). Impacts of urbanization and industrialization on energy consumption/CO_2 emissions: does the level of development matter?. *Renewable and sustainable energy reviews*, *52*, 1107-1122.

Oberschelp, C., Pfister, S., Raptis, C. E., & Hellweg, S. (2019). Global emission hotspots of coal power generation. *Nature Sustainability*, *2*(2), 113-121.

Odhiambo, N. M. (2010). Energy consumption, prices and economic growth in three SSA countries: A comparative study. *Energy policy, 38*(5), 2463-2469.

Prasad, G. (2011). Improving access to energy in sub-Saharan Africa. *Current Opinion in Environmental Sustainability*, *3*(4), 248-253.

Sarkodie, S. A. (2018). The invisible hand and EKC hypothesis: what are the drivers of environmental degradation and pollution in Africa?. *Environmental science and pollution research, 25*(22), 21993-22022.

Schreiner, M. M., Nouwen, W. E., & Mubiala, G. M. (2021). The Environmental Trade-offs of Hydropower Development in the Congo Basin. *Ecological Economics, 178*, 106860.

Shabalov, M. Y., Zhukovskiy, Y. L., Buldysko, A. D., Gil, B., & Starshaia, V. V. (2021). The influence of technological changes in energy efficiency on the infrastructure deterioration in the energy sector. *Energy Reports*, *7*, 2664-2680.

Shi, H., & Umair, M. (2024). Balancing agricultural production and environmental sustainability: Based on economic analysis from north China plain. *Environmental Research, 252*, 118784.

Smith, J. U., Fischer, A., Hallett, P. D., Homans, H. Y., Smith, P., Abdul-Salam, Y., ... & Phimister, E. (2015). Sustainable use of organic resources for bioenergy, food and water provision in rural Sub-Saharan Africa. *Renewable and Sustainable Energy Reviews*, *50*, 903-917.

Sonter, L. J., Dade, M. C., Watson, J. E., & Valenta, R. K. (2020). Renewable energy production will exacerbate mining threats to biodiversity. *Nature communications*, *11*(1), 4174.

Szabó, S., Pinedo Pascua, I., Puig, D., Moner-Girona, M., Negre, M., Huld, T., Mulugetta, Y., Kougias, I., & Kammen, D., Szabó, L. (2021). Mapping of affordability levels for photovoltaic-based electricity generation in the solar belt of Sub-Saharan Africa, East Asia and South Asia. *Scientific reports*, *11*(1), 3226.

United Nations Population Division. (2024). World population prospects: Revision Population, total - Sub-Saharan Africa. World Bank Open Data. (n.d.). https://data.worldbank.org/indicator/SP.POP.TOTL?locations=ZG

Voumik, L. C., & Sultana, T. (2022). Impact of urbanization, industrialization, electrification and renewable energy on the environment in BRICS: fresh evidence from novel CS-ARDL model. *Heliyon*, *8*(11).

Yu, P., Wei, Y., Ma, L., Wang, B., Yung, E. H., & Chen, Y. (2024). Urbanization and the urban critical zone. *Earth Critical Zone,* 10001.

Contact email: j-niangue-8c7@eagle.sophia.ac.jp

An Ongoing Visual Turn About Contemporary "Green Screen" Painting

Haiyu Yuan, University of Edinburgh, United Kingdom

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
The thesis investigates shifts in the styles and contexts of contemporary painting in the framework of screen media and digital culture, focusing on the concept of the "Green Screen" (Gronlund, 2016). This intangible vision is reflected in the growing number of artists from all over the world such as Trey Abdella (USA), Gao Hang (China), Eleanor Swordy (USA), Vojtěch Kovařík (Czech Republic), Ralf Kokke (Holland), Danica Lundy (Canada), Dan Coombs (UK) and others are making a range of painting-related work around digital imagery, internet-derived figures, marginalised picture archetypes, and low-quality online photography. First, I examine screen-based characteristics in my own painting practice. I attempt to use the concept of the "green screen" as a metaphor for the artist's invisible juxtaposition of violence-laden images and the flattening of the way they are created. The visual turn addresses a response of contemporary art to the technology of image dissemination, the algorithmic processing of large databases of dematerialised invisibility, which encompasses artists' fascination with and enthusiasm for what Hito Steyerl (2009) called as "poor image." In their repetitive appropriation and reinvestment of images, these contemporary painters challenge the traditional space of the data sublime and the decommodification of images through works that force the viewer to gaze into the abyss of low-quality images simulated in the frame.

Keywords: Contemporary Painting, Green Screen, Digital, Poor Image

iafor
The International Academic Forum
www.iafor.org

Introduction

Before delving into the subject of my article, I think it's important to clarify my identity as a contemporary painter. My artistic journey began during my undergraduate years, and since then, my dedication to painting has remained unwavering. I have always felt a deep fascination with the medium and its potential. My practice is grounded in figurative painting, with the themes I explore often stemming from personal experiences, reflections on everyday life, and the appropriation of digital images that capture my attention.

Easel painting, as a medium, is both straightforward and complex. It involves manipulating tools to craft visual illusions on a flat surface, making it a unique form of visual production. The complexity of its historical development makes achieving innovation within contemporary painting particularly challenging, and this challenge is what draws me to the medium. Even before I officially began my research, I found myself questioning why I was consistently drawn to painting images derived from digital media. Initially, I thought this approach could represent a new direction for easel painting in the context of contemporary art. However, as I continued to explore, I began to recognize subtle, often overlooked factors influencing this tendency. I eventually discovered a group of contemporary artists who, like myself, incorporate digital screen imagery into their painting practices. This observation led me to realize that a significant shift in visual language was emerging in contemporary painting. As a result, I decided to focus my PhD research on exploring my own artistic practice, while also examining the work of these artists whose practices align with my own interests.

Through this article, I hope to explore the aforementioned visual shift, using a concrete phenomenological perspective, combined with my practical experience and visual analyses of the other related artists. The key term "Green Screen" comes from Melissa Gronlund. I use it to describe and metaphorically represent painters, including myself, who incorporate digital screen imagery. I first learned about this term from Melissa Gronlund's *Contemporary Art and Digital Culture*. Here, Gronlund explains how Green Screen technology originated in film practice and played a crucial role in post-production.[1] Green Screen technology thus symbolizes the organization and appropriation of different visual elements in moving images. It reflects the same infinite informative malleability as the artist's reinvestment of images mentioned above. "Green Screen," as a transitional concept, aptly connects my painting methods and those of the artists I am interested in with the digital characteristics of technology. In my subsequent research, I collectively refer to the paintings and artists I study as green-screen painting, green-screen artists.

The Diary of Practice

My research method firstly revolved around my practice diary, in which I dismantled the production process of each work into two parts: the draft stage and the completion stage. These two phases derive from the traditional work-process of painting, the basis for the majority of artists' experimentation. In each of these two phases, I noted and narrated my creative ideas, inspirations, alterations in consciousness and experiences as an autobiographical and self-reflective record. As a contemporary painter, the starting point of my research is rooted in my own painting practice. In the following, I will use an example from my practice diary to illustrate how my painting reflects the visual qualities of digital screens.

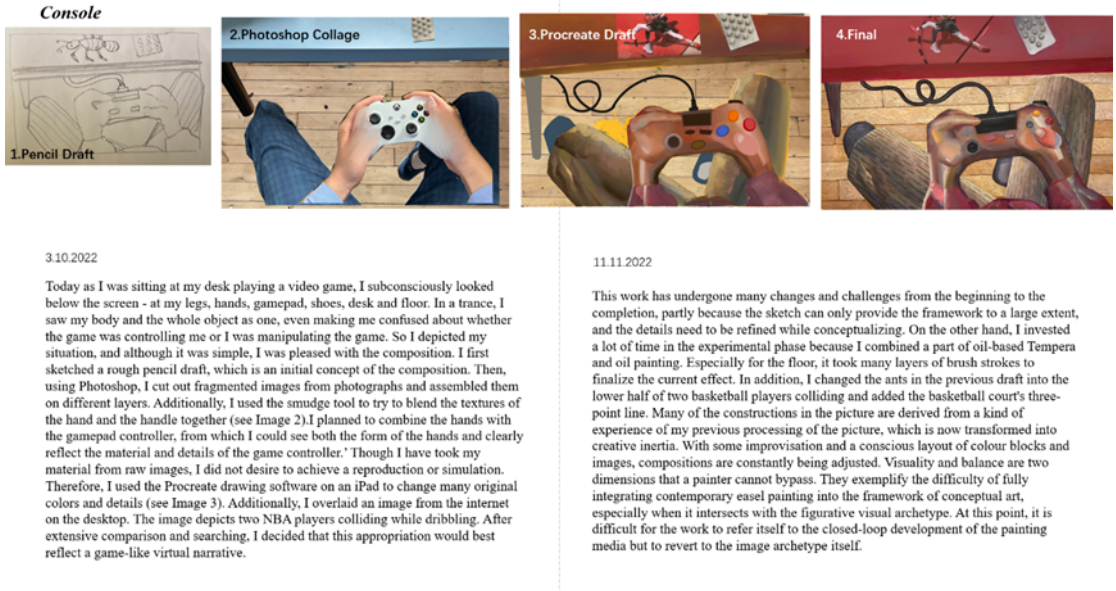
[1] Melissa Gronlund, *Contemporary Art and Digital Culture* (New York: Routledge, 2016), 44.

I intersperse original images from my practice diary along with excerpts of text to describe the process step by step. After each description, I combine my existing experience and knowledge to conduct a preliminary analysis of the relevant information. Since I produced a large number of painting experiments during my doctoral studies, I only select parts of the diary that contain representative paintings for illustration. During the writing of the diary, I took on the identity of an artist and practitioner, whereas in the dissertation, I stand as a researcher and analyst, allowing me to objectively discuss my practice. In the following diary excerpts, I begin with one of the most representative paintings, *Console* (10/3/2022, Figure 1.1), as the opening narrative. As the explanation phase progresses, I elaborate on the main issues and ideas reflected upon during the practice process. (Text extracted from the practice diary appears in italics, like this, about the origin of *Console*.)

> Today as I was sitting at my desk playing a video game, I subconsciously looked below the screen - at my legs, hands, gamepad, shoes, desk and floor. In a trance, I saw my body and the whole object as one, even making me confused about whether the game was controlling me or I was manipulating the game. So I depicted my situation, and although it was simple, I was pleased with the composition. (Figure 1)

The description shows that my inspiration for the work derives from a real-life scenario; a type of feedback about a mundane state that I experienced. Now as a "me" who has stepped out of the process of making the work, and as a researcher trying to analyze the process of transforming the work from absence to presence, I can see that what I needed as a subject at that time was not the desire to reproduce an image of reality, but rather, what drove me to create was the feeling of inauthenticity brought about by the moment after interacting with the virtual reality of the game. Therefore, what I wanted to depict was not a simple reproduction, but moment of imagination and distortion based on reality. This is further validated in the subsequent entry, "*Though I have took my material from raw images, I did not desire to achieve a reproduction or simulation*". (Figure 1) This describes a metaphoric manipulation a series of random visual montages, originally unrelated image sources, easily labelled and applied into the composition of the picture at the sketching stage.

Figure 1: Haiyu Yuan, Practice Diary. p 11.



(© Haiyu Yuan, provided by Haiyu Yuan, Edinburgh)

My diary continues:

> Then, using Photoshop, I cut out fragmented images from photographs and assembled them on different layers. Additionally, I used the smudge tool to try to blend the textures of the hand and the console together (see Image 2). I planned to combine the hands with the gamepad controller, from which I could see both the form of the hands and clearly reflect the material and details of the game controller. (Figure 1)

So, I used Photoshop to process the sketch of a vision I extracted, rather than directly transferring the sketch onto the canvas. I realized it would be challenging to organize the colours, materials, textures, and forms without any visual references. In order to avoid recreating my vision based on a realistic image, in Photoshop I could piece together a state of multiple juxtaposed image fragments. In my thought, all specific reference images were independent modules, participating in the overall planning in their respective layers, rather than being placed in the same environment from the start. I used the smudge tool to intervene in the process of image deformation, to experiment with a visual image that merges the hand and the console. Reflecting on this process, I was surprised to find that I was thinking about the elements in the image through Photoshop's montage-like operation mode. During this process, these elements were merely manipulable and replaceable images to me. In addition to this, the original colours palette of the image sources also shows a state of separation in the final effect.

> Therefore, I used the Procreate drawing software on an iPad to change many original colours and details (see Image 3). (Figure 1)

This means that colour is stripped away from the inherent properties of the image original sources and turned into an unstable medium. After processing in Photoshop, I was not satisfied with the visual representation based on photo collages. I used another digital application, Procreate, to further shape the colours, textures, and details in the image to match my imagination. Procreate enables easy modifications and refinements, less experimental steps compared to directly working on the canvas. In most of my other works, I use these digital

painting tools first to build mechanisms for modification and experimentation by adding layers.

> This work has undergone many changes and challenges from the beginning to the completion, partly because the sketch can only provide the framework to a large extent, and the details need to be refined while conceptualizing. (Figure 1)

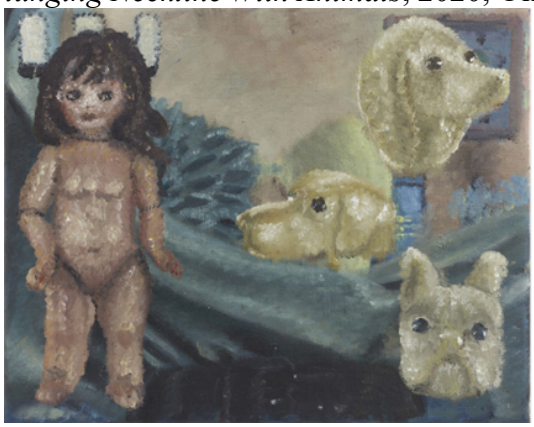
The first sentence of the finished record section reflects on the fact that the reality of image references can only provide a limited value, in contrast to the unlimited number of creative options available. If an artist needs to follow a conceptual methodology for the configuration of his or her work, then my practice traces its origins to the appropriation of the contemporary screen, the original source of the images; how they are appropriated and made malleable is the focus of my attention. I think this must be related to some specific plane of appropriation, or at least to virtual experience and digital simulation, because my subsequent records I tried to replace the image of the ants planned in the sketch with the lower bodies of two basketball players in motion and the three-point line of the court. This image came from social media, and I modified it from its original size in some nodes of transmission and gradually reduced its original resolution in the process of compression. If you look back at my other work, low-quality images like this appear quite often.

In my painting practice, I choose tempera as one of my techniques. This decision is a result of careful consideration. Tempera is a classical painting technique that was widely used by European artists up toward during the early Renaissance. Tempera invokes mixing of pigment powder with binders such as egg yolk, egg white, or plant oils. Tempera dries extremely quickly and enables the layering of different colours, resulting in a delicate texture of brushstrokes. These characteristics differ significantly from the visual experience offered by screens. My first encounter with tempera as a medium occurred during my undergraduate studies when I came across paintings by artist Andrew Wyeth (1917-2009, US). I was captivated by the texture of his paintings, which led me to begin researching and learning this technique. Tempera conveys a dimension of materiality and substance in my painting practice. Many contemporary artists, aiming to visually simulate screens, often use airbrushes and large, soft brushes to minimize the impact of visible brushstrokes. Screen images, by contrast, are almost entirely dematerialized, displaying smooth and non-artificial textures. I persist in using tempera as a painting technique because I think that an artist's simulation and appropriation of screen images can coexist with the emphasis on the material texture of painting. Additionally, I argue that the screen aesthetic in easel painting is primarily reflected in the artist's approach to digital imagery, their methods of appropriation, and their working processes. Particularly after examining the works of artists such as Issy Wood (1993-, US) (Figure 2), Paul Robas (1989-, Romania) (Figure 3), and Jordan Kasey (1985-, US) (Figure 4), I became even more convinced of my perspective. Painting technique is a means to serve an aesthetic commonality; it can be different, unique, homogenised or suppressed, but it must be chosen and cultivated for some purpose of the individual artist. I observed that these artists, in various ways, focus on obvious brushstroke textures in their paintings. But I can still discern the screen-based compositional methods reflected in their works. I consider that the simulation and appropriation of the visual form of digital interfaces is one of the most profound influences on my painting practice. It enables me to move away from a world constructed on the basis of nature and reality, giving rise to a series of new viewing modes and visual organizations.

According to my practice diary, questions that arose I need to pursue here: What kind of visual culture and aesthetic experience can we use to proxy our relationship with internet-derived creations? I draw on theories of visual culture in the ensuing discourse to discuss this visual

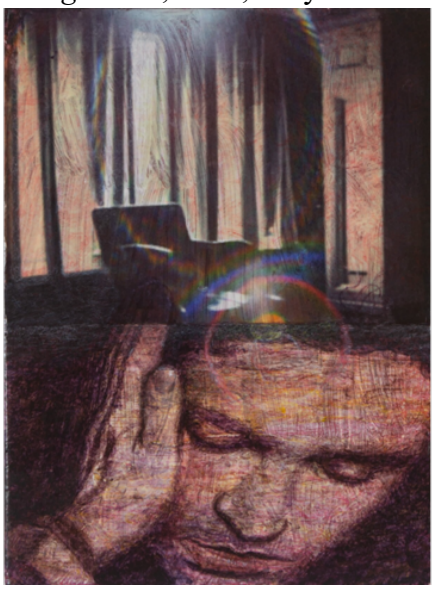
turn, widely present in contemporary painting.

Figure 2: Issy Wood, *Plunging Neckline With Animals*, 2020, Oil on Linen, 23.5×30 cm



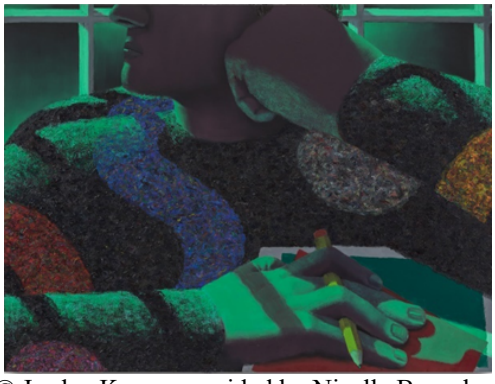
(Artwork © Issy Wood, photo provided by X Museum, Shanghai)

Figure 3: Paul Robas, *Waiting Room*, 2024, Acrylic on Canvas, 30.5×40×2 cm



(Artwork © Paul Robas, provided by Galerie)

Figure 4: Jordan Kasey, *Green Light*, 2019, Oil on Canvas, 144×192 cm



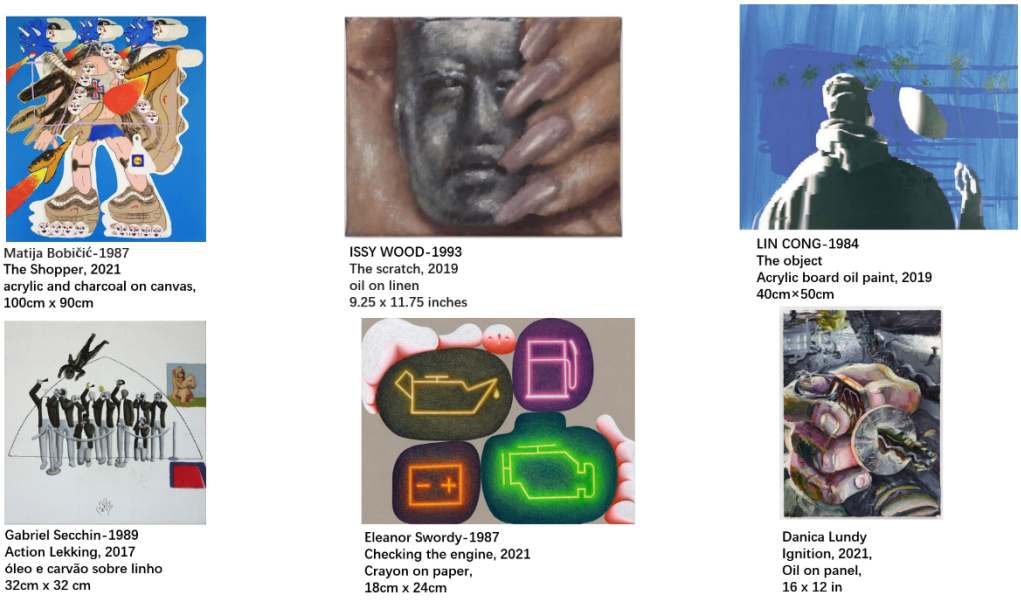
(Artwork © Jordan Kasey, provided by Nicelle Beauchene Gallery)

The Green-Screen Artists

In the course of my explorations, I noticed a group of contemporary artists in a similar situation

to mine. I became aware of and interested in them during my MA studies. Initially, I noticed that some of my classmates in the painting department shared my habit of appropriating images, and later I realized that many artists from around the world are guiding images into a pursuit of an interesting and flat aesthetic through image appropriation. Most of them are first and foremost engaged in the field of contemporary figurative painting, and most of them were born in the 80s and 90s, which means that their growth was accompanied by the unprecedented development of the screen image and the Internet medium. The most important aspect stems from the fact that their work is associated with Collage and Montage and can be seen as a contemporary cast or reflection of virtual space and time. This is reflected in the fact that these artists share the same passion as I do for appropriating marginalized imagery. For example, I am very interested in Gabriel Secchin (1989-, Brazil), Matija Bobičić (1987-, Slovenia), Issy Wood (1993-, USA), Lin Cong (1984, China), Eleanor Swordy (1987-, USA), Danica Lundy (1991-, Canada), and Ralf Kokke (1989-, Netherlands), etc. (Figure 5).

Figure 5: The Green-Screen Artists



In fact, I needed an objective analysis using visual theory, to explain to myself why these artists share a high degree of similarity with my creative experience. My initial criteria for judgement of my practice and potential research objects emerged from intuition, developed over a long period as a painter. Sometime after my research began, as more information I gathered, I found more and more such artists with some pertinence to my creative process, which forced me to move from a relatively isolated exploration to confronting the potentially huge visual trends of the moment. This also means that the overall direction of my research, with the collection of more external data, has gradually deviated from the originally established heuristic research's fundamental self-referential framework. Now these artists I intersperse as my research subjects active with uncertainty. They represent a variety of different artistic stylistic tendencies. I do not want to crystallise them into one unit, especially since they come from almost all over the world rather than from a certain region. Therefore, instead of labelling them as a movement, it is better to perceive them as an evolving state of affairs, in which we can look for broadly related characteristics and commonalities, and locate the artists in the context of a cybernetic network system in the digital age, where globalized cultural exports and hybridization have led to shared distinctive characteristics of their art that go beyond their regional identities.

Art critic Melissa Gronlund discusses the green-screen technology in contemporary digital art as a category, which both represents a core production method in the film industry, and illuminates aspects of immateriality and invisibility in contemporary art. Gronlund writes about how Hito Steyerl applied Green Screen technology to her video work *How Not to Be Seen*, She comments that "I want to focus on this last emblem, that of the Green Screen, which has become a signal motif of art responding to digital technologies, to further demonstrate how visualization has become a sign of anxiety, representing images not as stable entities but as in perpetual motion."[2] From the technical point of view, Green Screen in film-making is used to integrate two sets of images through the technique of "swimming matte". Gronlund's point is that this process reflects the infinite plasticity of visual information in the same way as the artist's treatment of images mentioned above.

In contemporary video production, Green Screen technology is frequently combined with CGI to create immersive visual effects. Actors perform against a Green Screen backdrop, which is subsequently replaced with virtual environments or enhanced with additional CGI effects. In my research, although Green Screen and CGI are distinct technologies, I often consider their combined potential to generate, manipulate, or modify images when discussing the influence of Green Screen on contemporary painting. Within such works, whether moving or painted, all elements undergo a secularization and flattening during the integration process. This approach moves away from depicting natural, cohesive events or scenes, instead favoring the extraction and assembly of visual materials from fragmented images. The montage of these images bridges the mesh-like connection between fantasy and reality in an instant, while dismantling traditional narrative requirements, leaving only the visual impact of compositional arrangement. I propose using "Green Screen" as a metaphor to draw parallels with certain innovative aspects of contemporary painting. These include the simulation and filtering processes inspired by post-Internet image culture, as well as the layer-based creation methods reminiscent of Photoshop's workflow. This analogy highlights how contemporary painting adopts techniques akin to those used in digital media, reflecting the layered and constructed nature of both mediums.

As I attempted to dissect my own creative motivations and those of the artists involved, I realized that we work in a way that is almost indistinguishable from the director of a Hollywood special effects film. Perhaps through the organizational layers of some paintings, audiences can tangibly feel that artists use the canvas as a Green Screen space for generating and appropriating original images. What I want to point out is that the process of splicing and stitching different images often creates a kind of seam, which serves as an indicator for the audience to recognize the extent to which an image is artificially manipulated. The goal of Green Screen technology in film production is to bridge and minimize such seams, thereby more easily immersing the audience in simulated realities, such as in the movie *Jurassic Park* (dir. Steven Allan Spielberg, 1993). On the other hand, Green-screen artists often deliberately preserve or even expose this seam, allowing audiences to instantly discern the non-natural aspects and the difference between the painted representation and real space.

However, the "distraction" approach is only an attitude adopted by the artists between the deconstruction and construction of source of the images, and it does not directly lead to the generation of "Poor" Image. This phrase was coined in 2012 by Hito Steyerl:

> The Poor Image reveals much more than just the content and appearance of the image

[2] Melissa Gronlund, *Contemporary Art and Digital Culture* (New York: Routledge, 2016), 46.

> itself; it also reveals the marginalisation of the original image and the gathering of social forces that lead to its circulation as a bad image on the Internet. Poor images are poor images because they do not carry any of the values of the image class society - their illegitimate and inferior status exempts them from this standard of evaluation. The lack of resolution corroborates that they are appropriated and displaced.

The direct link to the "Poor" Image lies in the artists' modes of choice and motivation, a concentration of their aesthetic experience and visual focus. As a "member" of the green-screen artists, I admit that I don't want my images to carry too many universal values and mainstream intention. I try to filter out any value structures and iconic signifiers that the imagery carried in their original contexts. Firstly, I think that marginalized and unstable imagery possess better contemporaneity and experimental potential compared to mainstream, polished imagery. In the simulation and appropriation of "poor images," unexpected visual effects often emerge, making them far more intriguing and challenging than Pop Art's engagement with popular imagery. Additionally, poor-quality and marginalized images carry a deconstructive power against grand narratives during their dissemination and reproduction processes. Both visually and conceptually, I find "poor images" to be more interesting and effective.

Green-screen artists seemed to be carrying out the same plan. Regardless of their geographic location, they are unanimous in their selection of the "poor Image."

Artforum as an international monthly publication focused on contemporary art, renowned for its in-depth analysis and critiques of visual art. I found numerous references link to green-screen painting on this platform, particularly in articles about individual artists. For example, an article discussing the paintings (Figure 6) of artist Louisa Gagliardi (1989-, Switzerland), writes:

> The exhibition included eight works, all with similarly alienating and unreal imagery of coalescing inner and outer landscapes. Gagliardi creates her paintings directly in Photoshop. […] I still wondered, though, whether what I saw could have resulted from her having lost control over the medium in any way. […] The final images often seem 'unreal,' inducing dizziness and vertigo and the vague sensation that one's eyes hurt as they do after one has been staring at a screen all day. […] Stylistically, these works show affinities with those of some of Moscow's late-Soviet-era nonconformist painters, such as Erik Bulatov, Ilya Kabakov, and, most of all, Oleg Tselkov. Their ironic art reflected the disruption and atrophy behind the late Soviet empire's image of itself. In scratching at the surface of late capitalism's self-image, Gagliardi shows herself to be similarly perceptive. When you dig beneath the surface, you find only more surface.[3]

In my opinion, Louisa Gagliardi is a typical green-screen artist known for transporting and intricately editing online images in her creations. Artforum's article by Agata Pyzik provides a critical review of Gagliardi's painting. Pyzik writes the Photoshop-like surreal and curated landscapes of Gagliardi's painting. She subtly questioning the overuse of screen media and the physical discomfort induced by such "screen-like" visual effects. But at the end of this article, Pyzik concludes by acknowledging Gagliardi's disruptive exploration of self-image in late capitalism through her painting concepts.

[3] Julieta Aranda, "Louisa Gagliardi," *Artforum*, Galerie Eva Presenhuber, accessed June 22, 2024, https://www.artforum.com/events/louisa-gagliardi-247149/

Figure 6: Louisa Gagliardi, *Apples and Oranges*, 2020, Ink and Gel Medium on PVC, 70 7⁄8×44 1⁄8 Inches

(Artwork © Louisa Gagliardi, details provided by Artforum)

The Artforum article that truly caught my attention was about artist Robin F. Williams. The content both dissects her work and poses critical challenges to the visual core of her pieces. Notably, the article mentions "zombie figuration" twice, emphasizing this concept in William's art. It writes:

> The 'zombie figuration' wave never really washed over Mexico City. Even when flirting with the figure, our painters remain for the most part highly conceptual, and painting that is colourful, figurative, expressive, and done in large format remains a scarce presence in the local landscape. All of this is to say that Robin F. Williams's first solo show in Mexico City, 'Watch Yourself,' was a unique and welcome occasion. […] Tears on Screen is simply hypnotic, magical in the sense of involving implausible optical deception and visual trickery. It almost makes me wish I hadn't seen the magician's secrets revealed on her TikTok account. In any case, this unique approach to painting drew an impressive number of visitors to the show, with a healthy turnout of local artists and art students as well. The regurgitative staples of zombie figuration are products meant to be digested in mere seconds. Williams offers something different. Failing to spend some time inspecting the craft and skill invested in her paintings, their virtuoso if completely wacky construction—would not only be a big miss but would also make you a bit of a snob, and who would want to be one of those?

The term "zombie figuration" refers to the "Zombie Formalism" in modern painting, typically used to criticize works that fall into kitsch and banal formalism, lacking the substance and

conceptual depth of idea-based painting. The author's critique seems to reflect the limitations of screen-based painting in terms of aesthetics. To some extent, it leads painting to become superficial and formalistic, neglecting the shaping of core concepts and meanings within the artwork.

Figure 7: Robin F. Williams, *Tears on Screen*, 2023, Oil and Acrylic on Canvas, 7×11 Feet

(Artwork © Robin F. Williams, details provided by Artforum)

Conclusion

From the perspective of a practitioner, I think the true value of painting lies in its capacity to "reveal" rather than "impose." The green-screen mode, in contrast, emphasizes the act of "imposing," highlighting a series of tightly controlled actions by the artist, from selecting to appropriating imagery. In the context of screen-based viewing, the visual representation of an image is often perceived as the complete essence of its corresponding reality. At this point, easel painting loses, to some extent, its resistance to formalism and diminishes the expression of materiality. In my view, painting practices in the digital media age are at risk of falling into an artificial space controlled by capital and technology. This space is incapable of generating authentic, "embodied" forms that differ fundamentally from its inherent nature. Within this framework, image processing may appear distinct, yet it shares a commonality that undermines the unique qualities of the medium. The spontaneity, materiality, and singularity of traditional painting are increasingly overshadowed by the economic values that shape the production and exchange of images.

Whether we embrace or resist the aesthetic system of control dominated by digital screens, it has infiltrated every aspect of contemporary visual creation. The primary goal of my research is to critically examine this visual transformation from the standpoint of contemporary painting, seeking to uncover the underlying systems of image control and technological networks. Ultimately, I aim to stress that the green-screen is not simply a visual trend limited to the canvas; it represents an actor-network shaped by consumer society, culture, and technology. This network involves not only artists but also all consumers of digital screen imagery.

References

Benjamin, W. (1968). *The work of art in the age of mechanical reproduction* (H. Zohn, Trans.). Schocken Books.

Benjamin, W. (1999). Little history of photography. In M. W. Jennings, H. Eiland, & G. Smith (Eds.), *Walter Benjamin: Selected writings, volume 2, 1927–1934* (E. Jephcott & K. Shorter, Trans., pp. 507–530). Belknap Press of Harvard University Press.

Benschop, J. (2020, November 21 – May 30). *Vivian Greven*. Artforum. https://www.artforum.com/events/vivian-greven-248456

Bergson, H. (1988). *Matter and memory* (N. M. Paul & W. S. Palmer, Trans.). Zone Books.

Biehl-Missal, B., & Saren, M. (2012). Atmospheres of seduction: A critique of aesthetic marketing practices. *Journal of Macromarketing*, *32*(4), 365–380. https://doi.org/10.1177/0276146711433650

Biggs, I. (2010). The spaces of 'deep mapping': A partial account. *Journal of Arts and Communities*, 2, 5–25.

Böhme, G. (1993). Atmosphere as the fundamental concept of a new aesthetics. *Thesis Eleven, 36*(1), 113–126.

Bois, Y.-A. (1993). *Painting as model*. MIT Press.

Carr, N. (2010). *The shallows: What the internet is doing to our brains*. W.W. Norton & Company.

Cazeaux, C. (2006). Interrupting the artist: Theory, practice, and topology in Sartre's aesthetics. In K. Macleod & L. Holdridge (Eds.), *Thinking through art: Reflections on art as research* (pp. 20–49). Routledge.

Crary, J. (1990). *Techniques of the observer: On vision and modernity in the nineteenth century*. MIT Press.

Crary, J. (1999). *Suspensions of perception: Attention, spectacle, and modern culture*. MIT Press.

Crary, J. (2013). *24/7: Late capitalism and the ends of sleep*. Verso.

Daniel-Henry Kahnweiler. (1949). *The rise of cubism* (H. Aronson, Trans.). Wittenborn, Schultz.

Djuraskovic, I., & Arthur, N. (2010). Heuristic inquiry: A personal journey of acculturation and identity reconstruction. *Qualitative Report, 15*(6), 1569–1593. http://www.nova.edu/ssss/QR/QR15–6/djuraskovic.pdf

Epstein, M. (2009). The interesting. *Qui Parle, 18*(1), 85–95.

Friedberg, A. (2009). *The virtual window: From Alberti to Microsoft*. MIT Press.

Gombrich, E. H. (1950). *The story of art*. Cited in P. Smith & C. Wilde (Eds.), *A companion to art theory* (2008). Blackwell Publishing.

Gagliardi, P. (1996). Exploring the aesthetic side of organizational life. In S. R. Clegg, C. Hardy, & W. R. Nord (Eds.), *Handbook of organization studies* (pp. 565–580). Sage.

Greenberg, C. (1960). Modernist painting. *Forum Lectures*, 2–8. Voice of America.

Gronlund, M. (2016). *Contemporary art and digital culture*. Routledge.

Hall, S. (1996). Who needs 'identity'? In S. Hall & P. du Gay (Eds.), *Questions of cultural identity* (pp. 5–6). SAGE Publications.

Hansen, M. B. N. (2004). *New philosophy for new media*. MIT Press.

Joselit, D. (2011). What to do with pictures. *October, 138*, 93–94.

Krauss, R. E. (1985). *The originality of the avant-garde and other modernist myths*. MIT Press.

Lusty, N. (2021). *Surrealism, feminism, psychoanalysis*. Routledge.

Macleod, K., & Holdridge, L. (Eds.). (2006). *Thinking through art: Reflections on art as research*. Routledge.

Manovich, L. (2002). *The language of new media*. MIT Press.

Morise, M. (1925). Les yeux enchantes. *La Révolution surréaliste, 1*(3), 14.

Mirzoeff, N. (2011). *The right to look: A counterhistory of visuality*. Duke University Press.

Mitchell, W. J. T. (2005). *What do pictures want?* University of Chicago Press.

Polizzotti, M. (1995). *Revolution of the mind: The life of André Breton*. Farrar, Straus and Giroux.

Price, S. (2011). Dispersion. In J. Kelsey (Ed.), *Documents* (p. 15). Friedman Benda.

Contact email: s1840892@ed.ac.uk

Exploring South Asian Immigrant Women's Strategies to Construct Hybrid Identity: An Integrated Approach to Acculturation

Ghazala Ahmed, Niagara College, Canada
Kamini Jaipal-Jamani, Brock University, Canada

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Conventional research on acculturation often presents immigrant integration into Western mainstream society as a linear process defined by prescribed stages. For instance, Berry's (2005) acculturation framework—assimilation, integration, rejection, and deculturation—often overlooks women's experiences and their social, historical, and cultural locations. Given the cultural diversity among immigrants from similar backgrounds, acculturation theory appears too broad. This study adopts an alternative integrated model that emphasizes the non-linear nature of acculturation patterns. Employing the theory of cultural hybridity and concepts such as Third Space and Dialogic Space within a feminist-postcolonial intersectional framework this research examines the unique acculturation experiences of South Asian immigrant women in Canada. This approach highlights the importance of considering diverse and intersecting influences, particularly for marginalized groups. The paper begins with a literature review on cultural hybridity and intersectionality, followed by a discussion of the significance of feminist methodology for understanding women's perspectives and integration strategies. Selected study findings are highlighted. Findings suggest that participants selectively adopt Western norms while maintaining their cultural and religious identities. These insights can support new South Asian immigrant women encountering acculturation challenges, showing how integration does not require abandoning cultural identities. From a feminist-postcolonial perspective, participants continually negotiated between two cultures, constructing hybrid identities reflecting both.

Keywords: South Asian Immigrant Women, Acculturation, Hybrid Identity, Agency, Feminist Postcolonial-Intersectional Framework

iafor
The International Academic Forum
www.iafor.org

Introduction

This study aimed to explore how South Asian immigrant women navigated through the acculturation process within the context of their families and Canadian society. For the past four decades, Canada has experienced a huge intake of immigrants from all over the world, especially immigrants arriving from Asia. The South Asian population has considerably grown in the last ten years. According to Joshi (2019), "India and Pakistan occupy the highest visible minority populations of the overall Canadian population" (p. 11). The term South Asian generally refers to people from India, Pakistan, Sri Lanka, and Nepal (Aujla, 2020). In this study, the focus was limited to immigrant women from India and Pakistan, who arrived in Canada under the [1]family, and economic class immigration category. For many decades, immigration policies and settlement practices have been written from the perspective of men neglecting the experiences of women in the migration and settlement process. From a feminist perspective, Cooke (2013) noted that this lack of interest in women's experiences is because in the past it was believed that women generally migrated as "trailing spouses" accompanying their husbands. However, research on migration and gender suggests, that the number of women admitted to Canada under economic classes has increased in recent years (Illesinghe et al., 2020).

Research on migration indicates that moving to a new country can be an overwhelming experience for many individuals. The decision to move is often influenced by a combination of push factors—negative conditions in the place of origin—and pull factors, such as the promise of a better quality of life and education in the destination country (O'Reilly, 2015). These factors shape the migration experience, which affects the settlement process. For both men and women, migration may be empowering for some and disempowering for others. For example, some immigrant men encounter challenges in accepting cultural changes in gender roles when adapting to a less patriarchal society (Yoon et al., 2010). In contrast, immigrant women may experience disempowerment as they miss their natal family in their country of origin (Ghosh, 2009). The research indicates that most immigrant women find migrating to a less patriarchal society empowering as they gain more autonomy. For example, research on migration and gender suggests that immigration can help women gain power and become more self-reliant (Aslan, 2009; Bergeron & Marchand, 2019). Therefore, in this paper, we sought to understand how immigrant women perceive and exercise their agency as an agentic tool to negotiate their religious, and cultural identities in the context of family and society after migrating to Canada.

Literature Review

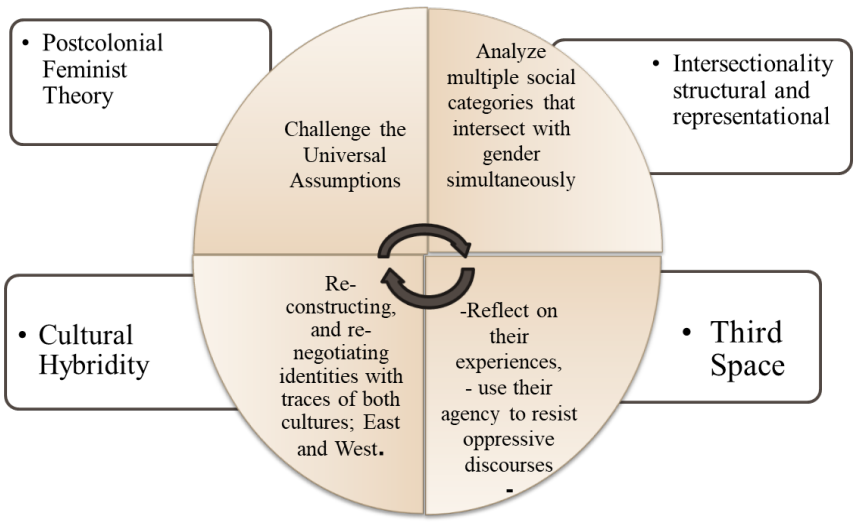
Acculturation Model

Berry's (2005) acculturation model outlines four stages of psychological adaptation to the host society— assimilation (adopts the receiving culture and discards the heritage culture), separation (rejects the receiving culture and retains the heritage culture), integration (adopts

[1] Canada admits immigrants under three major immigration categories: Family class: adult residents or citizens can apply for the sponsorship of their close family members such as children, parents, a spouse, or a common-law partner (Guo, 2015). In the economic class immigration category, immigrants are accepted on a point system, where principal applicants must acquire the minimum number of points (67 out of 100 points) determined by the applicant's English and m and the principal applicant must acquire the minimum number of points (67 out of a 100 points) determined by the applicant's English and French language ability, education, work experience, and age etc. (Phan et al., 2015).

the receiving culture and retains the heritage culture) and marginalization (rejects both the heritage and receiving cultures). Berry further explained that these psychological adjustments are a stress reaction in response to the experience of acculturating into a new society. He coined the term acculturative stress which may include physical, psychological and social aspects due to the acculturation process (Berry et al., 1987). According to Berry, these changes can manifest in various forms. Physically, they may involve relocating, securing new housing, or adjusting to changes in health and diet. Economically, they may include finding a suitable job, while culturally, they may require learning a new language. On an individual level, psychological changes also arise, Berry (2005) described these changes as psychological acculturation, which includes changes in behaviour, values, attitude, abilities and motives. However, Padilla and Perez (2003) argue that the adaptation process is more complex than simply the interaction between two cultural groups; it must also account for differences among immigrants who share the same cultural, ethnic, and historical backgrounds, as these factors influence the level of acculturation. For example, adopting Berry's bicultural model may be relatively straightforward when the two cultures are similar (immigrants from white, European backgrounds). However, when cultures are very different and in opposition to each other such as collectivist cultural values versus individualistic host culture, achieving biculturalism can be challenging and stressful (Rudmin, 2003). From this view, we argue for the alternative integrated model grounded in a feminist-postcolonial perspective that emphasizes the non-linear nature of the acculturation process and questions the universalization of immigrant women's experiences from the Global South. We argue that cultural hybridization theory offers a framework for examining how immigrants adapt to social, cultural, and psychological changes through varied strategies influenced by their social contexts. This perspective recognizes the complex nature of their identities and supports McLeod's (2020) argument that universal generalizations cannot adequately reflect the diverse experiences of all postcolonial subjects.

Figure 1: Alternative Postcolonial-Feminist and Intersectional Model- An Integrated Approach to Acculturation



Postcolonial Feminist Theory

Postcolonial means 'after the colonial' period (Young, 2020). It is a term used concerning all the cultures affected by imperialism. From this view, postcolonial theory explores the consequences of colonization. The primary focus is to restore not only the hegemonic image of colonized subjects by the colonizers but also pay attention to the social issues surrounding "migration, slavery, suppression, resistance, representation, difference, race, gender and place" (Ashcroft et al., 1995, p. 2). In the context of migration, Bhatia and Ram (2001) stress the use of postcolonial perspectives in understanding the unique experiences of non-Western immigrants. For example, postcolonial scholars not only challenge the Eurocentric beliefs of how the East is presented in Western scholarship but also seek to challenge the narratives produced by Western discourses which portray men and women of the East as inferior to men and women in the West (Gandhi, 2019). Spivak (1988) introduced the phrase "the subaltern cannot speak" about women in the Global South. She argued that Western discourses often dismiss the concerns of these women, translating so that their voices are unheard. Moreover, when the subaltern does speak, often mediated through Western scholarship that claims to represent the oppressed, meaning the subaltern's voice is never truly expressed in its own terms (Kerner, 2017). For example, Bergeron and Marchand (2019) pointed out that women's voices from the Global South are generally "mediated by colonial and patriarchal discourses…that they cannot escape institutional positioning. Thus, there will always be limits to what we can hear from subaltern 'others'" (p. 56). From a Western feminist perspective, voice and agency are generally associated with Western women being agentic, while silence is the "mark of passivity and subordination" (Hutchings, 2019, p. xii). According to Sylvester (2019):

> To speak is to be visible, recognized, willing, and affecting. Silence is the opposite of all that: invisible, unrecognized, unwilling, and not affecting. Of course, silence can be a strategy or mark of shyness, conflict avoidance, respect or awareness that insistent voicing can be dangerous or narcissistic. As another possibility, however, silence could mean no one has asked the questions that can release voice. (p. 18)

Bergeron and Marchand (2019) highlighted the significant role of silence as a strategy to resist oppressive structural inequalities, where silence itself can be seen as a form of agency. Therefore, postcolonial feminist scholars argue that White Western feminism has neglected the struggles of women from the Global South and the intersecting factors such as race, class, age, and gender that contribute to the multiple marginalization of women of colour. They also question the equation of voice and agency and the universal assumption that all women experience the same oppression globally without acknowledging the differences that exist among them. Cheung (2014) emphasizes the importance of integrating postcolonial concepts such as hybridity and intersectionality to understand immigrant women's identity based on various social categories of class, race, ethnicity and gender. It is therefore important to look at the acculturation process and experiences of South Asian immigrant women from a postcolonial-feminist perspective which addresses both gender inequality and the hegemonic portrayal of non-white, non-western, women of colour.

Intersectionality Theory

One of the key principles of feminist theory is to examine gender inequality and power structures, along with societal norms that shape women's lives. Central to feminist theory is the recognition of intersectionality, which considers how factors such as race, class, culture,

family structure, ethnicity, and other social categories intersect with gender to influence individual experiences (Carastathis, 2014; Durfree, 2020). The theory of intersectionality thus developed in response to the layered oppression that marginalized women based on race gender and class. The term "intersectionality" was coined by Kimberly Crenshaw who originally used it to highlight how race and gender intersect to create unique forms of oppression for Black women in the United States. However, Crenshaw (1991, p. 1245) describes intersectionality as a "provisional" concept, suggesting that it can also serve as an analytical tool to examine other social structures—such as class, ethnicity, culture, language, religion, age, colour, and disability—that intersect and influence one another. Similarly, Collins (2015) also argued that the concept of intersectionality can be used as "a) a field of study, e.g., history, themes debates and direction; b) as an analytical framework that analyses social phenomena and other social inequality, which in turn produce new knowledge about the social world, and, c) as a critical praxis (applying the theoretical framework to practice) for social justice projects" (p. 5).

Crenshaw's Three Categories of Intersectionality

Crenshaw (1991) in her essay Mapping the Margins', discussed three dimensions of intersectionality: 1) structural intersectionality; 2) political intersectionality, and 3) representational intersectionality that may intersect with gender to affect the lived experiences of marginalized women of colour. For example, the framework highlights the experiences of women who face marginalization due to structural inequality, political discrimination, or stereotypical portrayals by Western media.

Structural Intersectionality. This refers to how social structures, such as laws, policies, and institutional practices, create overlapping and compounding inequalities for marginalized groups. For women of colour, structural intersectionality highlights how systems like racism and sexism interact to shape their experiences, particularly in areas such as employment, housing, and access to healthcare.

Political Intersectionality. This category focuses on how political movements and agendas often overlook or marginalize the unique needs of individuals, positioned at the intersection of multiple identities. For example, women of colour may feel excluded or sidelined in both feminist movements (focused primarily on gender but failed to recognize their role in the racial oppression of Black women and women of colour) and anti-racist movements (focused primarily on race, while ignoring the domestic violence due to patriarchal family structure), as these movements often fail to address their intersecting experiences.

Representational Intersectionality. This aspect examines how cultural, and media representations reinforce stereotypes and contribute to the marginalization of certain groups. Women of colour, for example, are often portrayed in ways that diminish their agency and identity, such as being stereotyped as exotic, passive, or overly aggressive, which influences how they are perceived and treated in society. These three categories work together to provide a comprehensive understanding of how multiple forms of oppression intersect to shape the lived experiences of marginalized individuals.

We applied the intersectional theory in conjunction with feminist postcolonialism to examine and understand the acculturation experiences of South Asian immigrant women, which are shaped and influenced by the interplay of multiple social categories. The analytical aspect of intersectionality recognizes the fluid nature of identities that are subject to change according

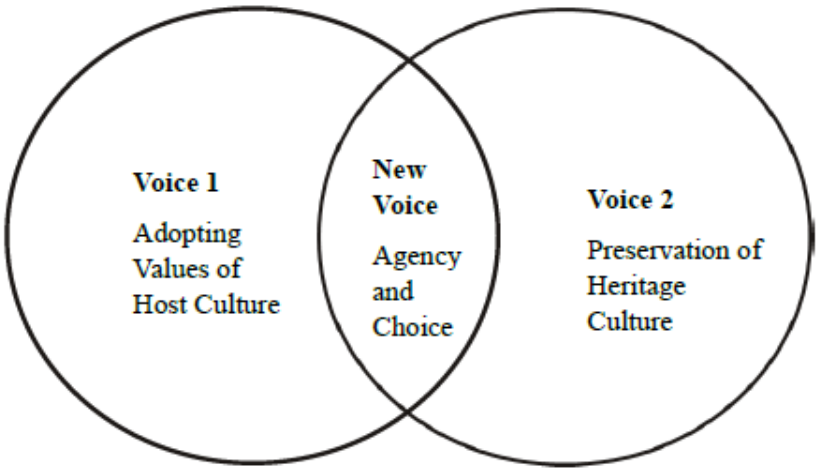
to different social contexts. Feminist postcolonial theory, on the other hand, brings attention to the intra-group differences, global factors, and the colonized history of the countries in the Global South. In this paper, we focused on structural and representational intersectionality from a postcolonial-feminist perspective (an integrated approach) that aided in disrupting a hegemonic and stereotypical representation of immigrant women from the Global South in the West and bring attention to other structural barriers such as a patriarchal family structure that limit women from accessing services and support, thus hindering successful acculturation into the host society.

Cultural Hybridization

Bhabha's Hybridity and Third Space. In postcolonial discourse, the concept of cultural hybridization originates from the works of Bhabha (1994) and Russian philosopher Bakhtin (1981). In this study, hybridity and Third Space concepts are employed to explore how immigrant women reconstruct, negotiate, or renegotiate their cultural and religious identities, as well as their gender roles, as they navigate through the process of acculturation into the host society. The word hybridity originates from biology and botany which means cross-pollination between two species giving birth to a third species (Shah, 2016). The term, hybridity concerning culture refers to a concept useful in analyzing "present situation and past religious, cultural, and historical heritage" (Kim, 2016, p. 262). Concerning the latter, hybrid cultures occur, when immigrants get traces of both cultures, thus creating a partial identity or an identity with multiple roles. Bhabha (1994) applied the concept of Hybridity to countries that had been colonized, to explain how the culture of the colonizer and the colonized nation clashed resulting in a transformed culture. He challenged the rigid and binary notions of identity, culture, and power, and stressed the ongoing process of negotiation, and transformation that occurs within what he terms the "Third Space" – a space where the subjects reflect on their experiences, use their agency to resist oppressive discourses and simultaneously move forward and make a change. The hybridity perspective therefore helps to understand how immigrant identities are constructed and negotiated as immigrants navigate the adjustment process in the new society.

Bakhtin's Dialogic Space and Double Voice. Bakhtin developed the notion of 'double-voiced' in discourses. It means listening to and understanding both perspectives and intentionally aligning with one voice while still recognizing the validity of the other. From this view Bakhtin's concept of hybridity focuses on the interplay of diverse voices, perspectives, and cultural influences, creating a dialogic space for new meanings and understandings to emerge. This concept aligns with Bhabha's Third Space as both focus on the in-between spaces that reshape identities, perspectives and cultural expressions. Bakhtin further elaborates that hybridity can be categorized as either organic or intentional. Organic hybridity arises naturally and unintentionally through the fusion of culture and traditions, such as food, and music. This form of hybridity reflects an unconscious merging of elements, resulting in gradual shifts in meaning, identity, and cultural practices. Intentional hybridity, on the other hand, occurs when two points of view or cultural differences conflict and create tension as they question or challenge the dominant narratives, thus resulting in bringing about change (Bakhtin, 1981).

Figure: 2 Dialogic Space (Bakhtin, 1981)



Methodology

This study employed a qualitative feminist research approach to explore the resettlement experiences of South Asian immigrant women in Canadian society. Guided by a postcolonial-feminist and intersectional framework, the research prioritized women's voices while recognizing both voice and silence as agentic tools for women from the Global South. As Kowalski-Braun (2014) highlights, an intersectional perspective is essential for amplifying the often-overlooked voices of women who have been stereotyped and "essentialized in feminist scholarship" (p. 44).

The following two research questions guided this study:

1. What were the challenges experienced by South Asian women during the immigration and resettlement process in Canada?
2. How do South Asian immigrant women define and negotiate their identity in the context of family and society post-immigration?

Data Collection Method and Selection of Participants

For this qualitative study, ten South Asian immigrant women from Southwestern Ontario were purposefully selected, with pseudonyms assigned to each participant to ensure confidentiality. Six participants immigrated to Canada through the Economic Class (EC) immigration category. Among them, one originated from an urban city in the western state of India, while the remaining five were from Pakistan. The other four participants entered under the Family Class (FC) category. Of these, three came from small cities in the province of Punjab and the North-West territory, and one was from the northern state of India. An in-depth interview approach was employed to gather detailed insights from participants through semi-structured interview questions. Multiple follow-up interviews, member checking, reflection on field notes, peer examination, and the researcher's position of being an insider/ outsider (South Asian background placed me as an insider and my position as a researcher placed me as an outsider) (Ahmed, 2021), enhanced the reliability and trustworthiness. A thematic analysis method was utilized to identify emerging themes. Data management and organization were facilitated using the NVivo software program.

Findings and Discussion

Question 1: Post-migration Resettlement Challenges

Family Dynamics and Family Structures. Family dynamics such as family ties and responsibilities were major factors that shaped participants' pre- and post-migration experiences. For example, women require permission to go out, work, or socialize in many cultures (Shankar et al., 2013). A few women spoke about the role of being dutiful daughters-in-law and taking care of their husband's extended family members before immigrating to Canada. These factors were the main reasons that prevented a few participants from joining their husbands earlier. For example, one participant came after ten years as she was obligated to look after her husband's parents back in India. Another participant, Samr, arrived as a new bride in Canada. However, she encountered many structural barriers when it came to having meaningful cultural contact with the members of the host society. The restrictions imposed on her by her husband's extended family members prevented her from taking English language classes and getting a driving class. However, after living in Canada for eight years with her in-laws, Samr finally exercised her agency and enrolled in the ESL program. Analyzing Samr's post-migration experiences from a structural and representational intersectional lens we can see how joint family structure affects the acculturation process of South Asian immigrant women from various social and cultural backgrounds which intersects with gender, as these factors may not prevent men from seeking these resources. For example, Samr took ESL classes, not within the time frame required as a newcomer, but after eight years, thus disrupting the notion that acculturation occurs at a prescribed linear stage.

Cultural Conflicts and Acculturative Stress (Role of a mother in the Canadian context). The participants' narratives indicated that women took additional responsibilities as mothers in educating about culture and values compared to in their home country. For example, the recent changes to the sex education curriculum implementation in elementary schools conflicted with a few participant's beliefs about teaching sexuality to young children. For example, this situation created psychological stress for a participant, Ammara, a newly arrived mother with children. In this context, Ammara consciously decided to teach her children about sex education from a Muslim perspective, and not to compromise on this subject matter. For some participants, caregiving responsibilities in the Canadian context also created added stress. One participant spoke about Canadian laws regarding leaving young children alone. According to Aarfa:

> My role as a mother changed because [here in Canada] the children are your responsibility, and you cannot leave them alone at home. In Pakistan, nobody asks you, if you leave your child alone and here, they are different, and I think it is a good thing because they protect kids here and safety is here.

Aarfa further stated that here in Canada, "child-rearing practices are different from Pakistan, here you give your children space and can't say anything to them."

In a collectivist society like Pakistan and India, children are constantly monitored for everyday behaviour such as being alone in their bedrooms. The idea of giving children independence and respecting their personal space (examples, of individualistic norms and values) was new to Aarfa as independence and personal space were linked to adulthood not childhood in Pakistan. In this context, this mother consciously adopted Western individualistic views on parenting concerning giving space to her children. This strategy

allows parents like Aarfa to accept child-rearing practices from the host cultures (Londhe, 2015).

Question 2: Negotiating of Identity and Exercising Agency in the Canadian Society (Intentional Hybridity)

For many immigrants, identity negotiation occurs as they engage directly with the host culture (Stathi & Roscini, 2016). In this study, the negotiation of identity among South Asian immigrant women was analyzed, not only through their post-migration experiences but also through their pre-immigration lives. Considering both pre- and post-migration experiences helps the researcher see the extent of participants' attachment to their culture and religion, which influences and shapes their levels of acculturation. For example, two women spoke about being conflicted when deciding how to dress (less conservative) and behave (shaking hands with men) compared to how they used to dress and behave pre-immigration. Both women selectively adopted some of the Canadian cultural norms of dressing to integrate into Canadian society, wearing Western clothing with a scarf while going out and not wearing the Abaya, a black, long attire covering their whole body which they used to wear back home.

From the women's narratives, it can be inferred that the women in this study exercised their agency and intentionally negotiated their cultural identity to integrate into mainstream society by creating a hybrid identity with traces from both cultures. Literature supports the notion that women's agency is either enhanced or constrained when immigrating to Western countries (Okeke-Ihejirika et al., 2019). Agency as explained by Lee (2009) in the Western context is "women's entry into the public sphere" (p. 48). Thus, the agency in the context of this study is seen as women making conscious decisions for themselves, concerning family and society and confronting or coping with situations and people in the public sphere.

Conclusions

In this paper, we discussed the traditional acculturation model which ignores the fluidity of the integration process and social categories such as family structure, culture, and religion, among others that influence immigrant women's levels of acculturation into the host society. The findings show that women navigated between the two cultures (heritage culture and the host culture) and strategically chose strategies that helped them integrate into the host society and maintain their culture and identity by occupying the Third Space and Dialogic Space, where the negotiation/ renegotiation of identities, perspectives or values occur.

Participants in this study had diverse experiences when it came to the resettlement process and adapting to Western norms and values. For example, one participant enrolled in an ESL program after living in Canada for eight years, while another started right after she arrived. Both women encountered different challenges because of their family dynamics which influenced their level of acculturation. These findings support the critique from the feminist post-colonial scholars who challenge the universal assumption that all women of colour have the same experiences without acknowledging the differences that exist among them. In this study, utilizing the Representational and Structural Intersectional Framework assisted in disrupting a fixed and universal portrayal of immigrant women from the Global South in Western discourses and bringing attention to the intra-group differences among South Asian immigrant women as they resettle in Canadian society. Gatt and colleagues (2016) also pointed out that other social stratifications such as class, social status, family structure,

culture, religion, and global context should be considered when analyzing immigrants' acculturative experiences.

Implications of Findings for New Immigrant Women

The findings of this study provide insights that can be helpful to new South Asian immigrant women. For example, new immigrant women can learn about the resettlement and acculturation challenges that most women encounter in their first few years of arrival in Canada. They can also gain insight into how these women strategically used various strategies to integrate into mainstream society. New immigrant women from similar cultural and religious backgrounds can become more aware that integration does not mean abandoning their cultural identity to be accepted in Canadian society; women can assume a partial identity with traces of both cultures. It is recommended that vignettes of immigrant women's experiences such as those in this study be shared with new immigrants in booklets or pamphlets in collaboration with resettlement services.

Limitations of the Study

This is a qualitative study, and the aim is not to generalize the unique experiences of all South Asian immigrant women who arrive from countries, such as India and Pakistan.

References

Ahmed, G. (2021). *South Asian immigrant women conceptualizing gender roles in the context of family and society in southwestern Ontario* [Unpublished doctoral dissertation]. Brock University.

Ashcroft, B., Griffiths, G., & Tiffin, H. (Eds.). (1995). *The post-colonial studies reader*. Taylor & Francis.

Aslan, S. (2009). "I want to find a better place": Assyrian Immigrant women and English-language acquisition. Major Research Paper: Ryerson University, Ontario, Canada.

Aujla, W. (2020). "It was like sugar-coated words": Revictimization when South Asian immigrant women disclose domestic violence. *Affilia: Journal of Women and Social Work, 1*-22. https://doi.org/10.1177/0886109920916038

Bakhtin, M. M. (1981). *The dialogic imagination: Four essays (Vol. 1)*. Austin: University of Texas Press.

Bergeron, S. & Marchand, M. H. (2019). Rethinking the equation between voice and power in household bargaining and global household models. In Jane, L. P. & Swati, P. (Eds.). *Rethinking silence, voice and agency in contested gendered terrains* (pp. 16-26). London: Routledge.

Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative studies of acculturative stress. *International migration review, 21*(3), 491-511.

Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations, 29*(6), 697-712.

Bhabha, H. (1994). *The location of culture*. London and New York.

Bhatia, S., & Ram, A. (2001). Rethinking 'acculturation' in relation to diasporic cultures and postcolonial identities. *Human development, 44*(1), 1-18.

Carastathis, A. (2014). The concept of intersectionality in feminist theory. *Philosophy Compass, 9*(5), 304-314.

Cheung, D. (2014). Changing gender: Gender role, class and the experience of Chinese female immigrants [Doctoral dissertation]. The Graduate Center, City University of New York, NY. https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=1024&context=gc_etds

Cooke, T. J. (2013). All tied up: Tied staying and tied migration within the United States, 1997 to 2007. *Demographic Research, 29*, 817-836.

Collins, P. H. (2015). Intersectionality's definitional dilemmas. *Annual Review of Sociology, 41*, 1-20.

Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review, 43*(6), 1241-1299.

Durfee, A. (2020). The use of structural intersectionality as a method to analyze how the domestic violence civil protective order process replicates inequality. *Violence against women*, *27*(5), 639–665. https://doi.org/10.1177/1077801220958495

Gandhi, L. (2019). *Postcolonial theory: A critical introduction*. Columbia University Press.

Gatt, S., Hazibar, K., Sauermann, V., Preglau, M., & Ralser, M. (2016). Migration from a gender-critical, postcolonial and interdisciplinary perspective. *Österreichische Zeitschrift für Soziologie, 41*(3), 1-12.

Ghosh, J. (2009). Migration and Gender Empowerment: Recent Trends and Emerging Issues. Human Development Research Paper, (4). United Nations Development Program, New York. http://ww.rrojasdatabank.info/HDRP_2009_04.pdf

Guo, S. (2015). The colour of skill: Contesting a racialized regime of skill from the experience of recent immigrants in Canada. *Studies in Continuing Education, 37*(3), 236-250.

Hutchings, K. (2019). Foreword. In Jane, L. P. & Swati, P. (Eds.). *Rethinking silence, voice and agency in contested gendered terrains* (pp. xii-xv). New York: Routledge.

Illesinghe, V., vom Berg, N. M., Iftekhar, K., Akbar, M., Preston, V., Dhiman, M., ... & Yvonne, J. (2020). *Express Entry and Economic Migration Pathways to Canada: Opportunities and Barriers for South Asian Women* (Vol. 9, pp. 4-22). Working paper.

Joshi, D. (2019). Waha ehsa tha, idhar ehsa hai (It was like that back home, but it is like this here): Family violence experiences of Indian and Pakistani immigrant women in the Greater Toronto Area. [Master's thesis, Wilfrid Laurier University, Ontario]. https://scholars.wlu.ca/etd/2168

Kerner, I. (2017). Relations of difference: Power and inequality in intersectional and postcolonial feminist theories. *Current Sociology, 65*(6), 846-866.

Kim, G. J. S. (2016). Hybridity, Postcolonialism and Asian American Women. *Feminist Theology, 24*(3), 260-274.

Kowalski-Braun, M. (2014). An Examination of How Feminist Perspectives and Generational Differences lnfluence the Leadership Practices of Women Administrators in Higher Education [Doctoral dissertation, Western Michigan University]. https://scholarworks.wmich.edu/dissertations/381

Lee, L. L. (2009). Inventing familial agency from powerlessness: Ban Zhao's lessons for women. *Western Journal of Communication, 73*(1), 47-66.

Londhe, R. (2015). Acculturation of Asian Indian parents: relationship with parent and child characteristics. *Early Child Development and Care, 185*(4), 528-537.

McLeod, J. (2020). Beginning postcolonialism. Manchester University Press.

Okeke-Ihejirika, P., Salami, B., & Karimi, A. (2019). African immigrant women's transition and integration into Canadian society: Expectations, stressors, and tensions. *Gender, Place & Culture, 26*(4), 581-601.

O'Reilly, K. (2015). Migration theories: A critical overview. In Triandafyllidou, A. (Ed.). *Routledge Handbook of Immigration and Refugee Studies*, (pp. 25-33). Abingdon, Oxford: Routledge.

Padilla, A. M., & Perez, W. (2003). Acculturation, social identity, and social cognition: A new perspective. *Hispanic Journal of Behavioral Sciences, 25*(1), 35-55.

Rudmin, F. W. (2003). Critical history of the acculturation psychology of assimilation, separation, marginalization, and integration. *Review of General Psychology, 7*, 3–37.

Shah, M. (2016). Cultural Hybridity: A Postcolonial Concept. IJELLH.(7), 4.

Shankar, J., Das, G., & Atwal, S. (2013). Challenging cultural discourses and beliefs that perpetuate domestic violence in South Asian communities: A discourse analysis. *Journal of International Women's Studies, 14*(1), 248-262.

Spivak, G. C. (1988). Can the subaltern speak? In Nelson, C., & Grossberg, L. (Eds.). *Marxism and the Interpretation of Culture* (pp. 271-313). Chicago, Illinois: University of Illinois Press.

Stathi, S., & Roscini, C. (2016). Identity and acculturation processes in multicultural societies. In Ferguson, N., Haji, R., & McKeown, S. (Eds.) *Understanding peace and conflict through social identity theory* (pp. 55-69). Springer, Cham.

Sylvester, C. (2019). Voice, silence, agency and confusion. In Jane, L. P. & Swati, P. (Eds.). *Rethinking silence, voice and agency in contested gendered terrains* (pp. 16-26). London: Routledge.

Yoon, E., Lee, D. Y., Koo, Y. R., & Yoo, S. K. (2010). A qualitative investigation of Korean immigrant women's lives. *The Counseling Psychologist, 38*(4), 523-553.

Young, R. J. (2020). *Postcolonialism: A very short introduction*. Oxford University Press.

Contact email: ghazala.anwar494@gmail.com

Re-framing the Past: Using Film and Cinema to Write Architectural History

Christopher S. Wilson, Ringling College of Art and Design, United States
Gül Kaçmaz Erk, Queen's University Belfast, United Kingdom

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Along with other archival material such as drawings, sketch books and written correspondence, images such as official publicity shots, construction photographs, newspaper reports, magazine features, demolition captures and even tourist snapshots have all been employed as documentary evidence to understand the development and transformation of the built environment over time, thereby allowing architectural historians to tell their stories. Even though moving images - film and cinema - can be equally documentative, they have been much less utilized for this purpose than their static, still-image counterparts. This essay argues that moving images from fiction and documentary films can inform architectural and urban historians about the built history of a particular place just as easily - if not better - than still images. Using a series of case studies from various film genres, this essay aims to highlight cinema as a viable and vital resource for writing architectural history.

Keywords: Architecture History, Cinema, Film, Photography

iafor
The International Academic Forum
www.iafor.org

Introduction

Since its invention in the 19th century, photography has long been utilized by architectural historians to aid in the writing of architectural history. Along with other archival material such as drawings, sketch books and written correspondence, images such as official publicity shots, construction photographs, newspaper reports, magazine features, demolition captures and even tourist snapshots have all been employed as documentary evidence to understand the development and change of the built environment over time, thereby allowing architectural historians to tell their stories. From the travel photography of exotic places by Francis Frith to the back streets of Paris by Eugene Atget, from the Modernist masterpieces of Ezra Stoller and Julius Shulman to the contemporary digital documentation of Iwan Baan, photography has played a major role in the writing of architectural history.

Even though moving images - film and cinema - can be equally documentative, they have been much less utilized for this purpose than their static, still-image counterparts. This could be due to the fleeting existence of cinema, a lack of easy access to films, or the belief that such material was not "scholarly enough." Whatever the reason, the lack of cinema as archival evidence in architectural history writing is stark. This presentation argues that moving images from fiction and documentary films can inform architectural and urban historians about the built history of a particular place just as easily - if not better - than still images. Utilizing a simple "before buildings," "during buildings" and "after buildings" organization, the presentation aims to highlight cinema as a viable, and even vital, resource for writing architectural history.

Before Buildings: Istanbul, Turkey

Many areas around the world were developed after the invention of cinema at the end of the 19th century and those that appear in films have been documented as such. In the 1960s, Istanbul - the largest city in Turkey, as well as its financial- and cultural-center, was a thriving Post-WW2 metropolis. In 1966, the year of *Oh, Beautiful Istanbul* (Atıf Yılmaz, dir.), the population of Istanbul was around two million inhabitants. Today, however, the estimated population of the city is around 16 million. The historic areas of Sultanahmet and Beyoğlu - with multiple Ottoman mosques and palaces - have remained relatively unchanged, but the skyline and transportation networks of Istanbul have been radically overhauled. In *Oh, Beautiful Istanbul*, the principal method of transportation to cross between European and Asian Istanbul was by boat, a condition that continued until 1973 when the first bridge across the Bosphorus Strait was completed. A second Bosphorus crossing, the Fatih Sultan Mehmet Bridge, was completed in 1988 and a third, the Yavuz Sultan Selim Bridge, in 2016. In addition to these landmarks spanning the Bosphorus Strait, it is also possible to travel under the water via the Marmaray Metro tunnel, completed in 2013, and the Eurasia Vehicle Tunnel, completed in 2016. Ferry boats still ply the waters of the Bosphorus and are used by many Istanbulites, but they are no longer the only way to cross and are often used for both daily commuting and recreational purposes.

Another difference between the Istanbul of 1966 and the Istanbul of today is the eruption of tall buildings. Like many metropolises around the world, the arrival of skyscrapers to Istanbul has changed the city's skyline. As mentioned before, the historic areas of Istanbul have remained relatively unchanged, but parts outside of these areas have literally "grown up."

Today, the city is home to about 50 skyscrapers,[1] mostly on its European side, as well as hundreds of high-rise buildings.[2] The areas of Levent, Maslak and Ataşehir have been the most affected, looking today like a miniature New York. There are no tall buildings to be seen in *Oh, Beautiful Istanbul*, since the first one taller than 100m (330ft) - the Akmerkez Shopping Center in Etiler - was not completed until 1993. The film director Atıf Yılmaz shows the audience this long-lost version of the centuries-old city, and the life in it, through hundreds of urban images.

Before Buildings: Venice, California, USA

The Venice Beach area of Los Angeles is known today for its lively seaside atmosphere, a beach promenade with street performers, the Muscle Beach Gym, one of the first concrete skateboarding parks in the world, a fishing pier jutting out into the Pacific Ocean, and the human-made canals that give the area its name. However, this identity did not develop until the late 1970s. Before then, Venice was a sleepy tourist destination that paradoxically contained oil wells alongside single-storey wooden cottages. Petroleum was discovered in the area in 1929 and within two years it is estimated that there were around 450 functioning wells. By the 1960s, these wells were running out of oil and were slowly capped off. However, functioning wells and a very sparse urban landscape can be seen in the 1968 film *Modelshop* (Jacques Demy, dir.). The main character of this film is a recently-graduated architect who, rather than look for a job, drives around the city as a *flaneur*, visiting friends to borrow money from. He lives with his girlfriend in her lonely Venice Beach cottage, which is in stark contrast to the highly built-up concrete jungle of Los Angeles that can be seen in the rest of the film. In this way, the film allows architectural historians to understand that while Venice Beach today may be the location of action and excitement, it was once a sleepy corner of Greater Los Angeles. Its architecture and life have dramatically transformed over the course of the 20th century.

Before Buildings: Potsdamer Platz, Berlin, Germany

Mostly due to its central location, Berlin's Potsdamer Platz has historical significance for both the city of Berlin and the nation of Germany. Once the busiest crossroads in Europe, the area was severely damaged from World War II bombing. Later, during the years of Divided Germany, the area suffered from neglect because it was located immediately next to the Berlin Wall. By the late 1980s, it was a surreal wasteland at the edge of both East and West Berlin. Following the fall of the Wall in 1989, Potsdamer Platz became a busy, over-scaled construction site. It became a gold mine for developers and contractors who turned the area into a generic Western 'downtown' or city center. It is the neglected and undeveloped time of the 1980s, when the Berlin Wall was still standing and Germany was still divided, that can be seen in the 1987 film *Wings of Desire* (Wim Wenders, dir.). Angels who watch over the city and its people are able to pass between the two Berlins, whilst of course its human inhabitants cannot. One particularly poignant scene in the film is where the elderly Homer wanders around the area, unable to find the Potsdamer Platz of his youth. While immediately next to the Berlin Wall, Homer recounts tales of coffee shops, cigar sellers, department stores, traffic jams and other bustling activity, then begins to comment on how "the flags started to appear and the police were no longer friendly" (a reference to the rise of the Nazis). Eventually, he settles down on an abandoned sofa in the middle of the weeds and states "I will not give up as

[1] A skyscraper is defined by the Council on Tall Buildings and Urban Habitat (CTBUH) as being at least 150 m [490 ft] tall. See https://www.ctbuh.org (Last accessed 10 December 2024).
[2] A high-rise building is defined by the CTBUH as being between 100-150 m [330-490 ft] tall.

long as I have not found Potsdamer Platz." The architectural historian is able to use this and other Berlin films, such as *Tugboat M17* (1933) and *Berlin Babylon* (2001), as snapshots of the in-between state that was Potsdamer Platz between its 1920s heyday and the development of the 1990s.

During Buildings - "City Symphonies"

Speaking of "heydey," the second use of film and cinema by the architectural historian is the documentation of cities and individual buildings during their prime. In the 1920s, a genre of film developed that would become called "City Symphonies," primarily because of the subtitle of the 1927 film *Berlin: Symphony of a Great City* (Walter Ruttmann, dir.). This film follows "a day in the life" of Berlin as inhabitants awake, get ready for their day, commute to their factory or office work, toil away at their jobs, have lunch, return back to work, then either go home or go out on the town. *Berlin Symphony* is buzzing with every type of vehicle, every type of food, and every type of drink - a testament to a golden age of Berlin of the 1920s that was one of the most exciting metropolises on the European continent. As previously mentioned, Potsdamer Platz features prominently in this story because it was the crossroads of the city where the architectural historian can actually see the coffee shops, cigar sellers, department stores, and busy traffic referred to by the character Homer in *Wings of Desire*.

There were more than a dozen "City Symphony" films made throughout the 1920s, from New York to Paris, from Montreal to Sao Paulo.[3] Charles Sheeler and Paul Strand shot *Manhatta* in 1921, a homage to Manhattan in New York City, highlighting the many skyscrapers under construction at that time. Alberto Cavalcanti created *Nothing but Time* in 1926, a day-in-the-life of Paris full of new experimental filmmaking techniques. Dziga Vertov created *Man with a Movie Camera* in 1929 which, set in Kyiv, is even more experimental than *Nothing but Time*, utilizing innovative techniques such as montage, collage, self-reflexive visuals, tracking shots, multiple exposures, dissolves, fast motion, slow motion, freeze frames, match cuts, jump cuts, split screens, Dutch angles, extreme close-ups, and reversed footage. Regardless of any trickery, these films are invaluable to architectural historians because they are literal snapshots of that particular city at that particular time. They are documentary evidence of each city as it was, which can be contrasted to how each city is today.

During Buildings: The World Trade Center Twin Towers, New York, USA

The World Trade Center in New York City designed by Minoru Yamasaki (1973), also known as the "Twin Towers," was famously destroyed on September 11, 2001 by terrorists who had hijacked airplanes to deliberately crash into the structures. Since these buildings were icons of New York - like Big Ben for London or the Eiffel Tower for Paris - most films shot between 1973 and 2001 have a view of the World Trade Center, either a brief glimpse or a starring role. The buildings were so tall, they just frequently appear in the background of street shots, such as when the main character of Mary Harron's 2000 *American Psycho* is simply crossing the street.

[3] Other "City Symphonies" include *Twenty-Four Dollar Island* (Robert J. Flaherty, 1927) filmed in New York, *Moscow* (Mikhail Kaufman, 1927), *Studies on Paris* (André Sauvage, 1928), *High Street* (Andor von Barsy, 1929) filmed in Rotterdam, *Rain* (Joris Ivens, 1929) filmed in Amsterdam, *São Paulo, Symphony of the Metropolis* (Adalberto Kemeny, 1929), *About Nice* (Jean Vigo and Boris Kaufman, 1930), *Images of Oostende* (Henri Storck, 1930), *Labor on the Douro River* (Manoel de Oliveira, 1931) and *Rhapsody in Two Languages* (Gordon Sparling, 1934) filmed in Montreal.

Only one year after the completion of the Twin Towers, tightrope walker Philippe Petit illegally performed a high-wire routine between the two buildings, as documented in *Man on Wire* (Marsh, 2008). In this documentary, architectural historians can plainly experience the freshly-completed structures and their dominance over Lower Manhattan as Petit makes his way on the wire from one building to another. In Sydney Pollack's 1975 political thriller *Three Days of the Condor*, the protagonist, desperately trying to understand why his CIA-colleagues were all murdered, visits the head of his department inside the World Trade Center. Not only does an establishing shot for this scene indicate the dominance of the Twin Towers over Lower Manhattan, but an interior scene indicating the view out of the building over the Brooklyn Bridge does so as well.

The opening credits of John Badham's 1977 *Saturday Night Fever* acts as a series of establishing shots, informing the audience that this film will take place in New York, and more specifically in Brooklyn. As such, the film begins with a general shot of Lower Manhattan from Brooklyn, and includes two of the architectural icons of the city: the Brooklyn Bridge and the World Trade Center Towers, which are so tall that they do not even fit into the frame of the shot. From the perspective of non-Manhattan [looking towards the city of skyscrapers], the message is clear: this film takes place nearby, but not in the action of downtown New York. Although John Landis' 1983 film *Trading Places* primarily takes place in Philadelphia, the final scenes occur in New York where the two main characters carry out their revenge by bankrupting the wealthy brothers who conducted the social experiment to have them trade places. While walking to the New York Stock Exchange, they discuss their plans crossing the vast street level plaza of the Twin Towers, again indicating the vastness of the structures. In one final example, the protagonist in Spike Jonze's 1999 *Being John Malkovich* discovers a portal into the mind of actor John Malkovich on the 7-1/2 floor of a New York skyscraper. Upon entering, he experiences life from Malkovich's point of view. After fifteen minutes, the main character is expelled from Malkovich's mind and lands at the side of the New Jersey Turnpike, across the Hudson River from Manhattan. Looking over to the city, he sees the Twin Towers dominating the skyline, even though they are about 2 miles [3.2km] away.

After Buildings: Rubble Films

The afterlives of buildings are not only captured in Hollywood movies. Following the extreme devastation of German cities during World War II, a particular genre of film called *Trümmerfilme,* meaning "Rubble Films," emerged. Such films took place amongst the ruins of German cities and highlighted, almost in a documentary way, the everyday struggles of ordinary people striving to survive by any means necessary. For the architectural historian, these films are a testament to the vast destruction of entire swaths of urban fabric that had occurred in order to win/end a war. The devastation documented in these films is enormous and almost beyond belief. However, the ruins in these films are real and, because filmed, ever-present.

In Roberto Rossellini's 1948 *Germany, Year Zero*, the ruins of Berlin are a playground for the main character, twelve-year-old Edmund, as he navigates his way not only through the devastation but also towards adulthood by financially providing for his bedridden father and two adult siblings. He walks through the rubble-strewn streets as if they were normal, occasionally pausing to kick a football with friends. He also regularly converses with people in half-bombed out apartment buildings from the street. A particularly poignant scene takes place in Hitler's ruined New Reich Chancellery, where Edmund attempts to sell a recording of

the Fuhrer's to an American soldier. As the voice of the dictator echoes throughout the abandoned structure, the audience understands - by means of the ruined architecture - that the Nazis are no longer in power.

In 1952, seven years after the end of World War II, ruins still occupied the landscape of Berlin, and Frantisek Cáp's thriller *Adventure in Berlin* (also known as *All Clues Lead to Berlin*) takes place amongst those ruins. An American lawyer, seeking the inheritor(s) of a pre-war German immigrant to the United States, arrives in the city and quickly falls into the grip of a post-war counterfeit gang. The climax of the film occurs when this lawyer, together with the daughter-inheritor of his client, flees the gang via the ruined shell of the German Reichstag Building. Climbing through, under, and over the ruins, they eventually escape to safety. The Reichstag was originally built in the 19th century to house the parliament of the "Second German Reich" (1871-1819). Following World War One, it served as the parliament building of the Weimar Republic (1919-1933), but was mysteriously vandalized, presumably by the Nazis, in 1933 and would stay in ruins throughout both the post-War and "division years." This monumental building currently serves the parliament of reunified Germany, but would not be fully renovated and supplemented with a new glass dome until the 1990s by the British architect Sir Norman Foster. The renovation started after artist duo Cristo and Jean Claud "wrapped," and somewhat cleansed, the whole building with colossal pieces of locally-manufactured silver fabric.

A final rubble film that documents the vast destruction of Berlin during World War II is Robert Aldrich's 1959 *Ten Seconds to Hell,* which follows the exploits of six German bomb-diffusers as they work to make the city safe from unexploded ordnance found throughout the rubble. Not only is the entire film full of ruins, but as the film progresses, there are also buildings that collapse, adding to the ruined state of the city. Bombs in the process of being diffused explode and four of the six protagonists eventually lose their lives. The finale of the film involves the two lone survivors as they attempt to diffuse a particularly complex British 1000-pound bomb that contains not one, but two fuses. For the architectural historian, these ruined landscapes of Berlin provide documentary evidence of vast urban destruction and provide a background to the development that occurred after the war, as much as 50 years later - since the division of Germany was not resolved until 1990, proving that urban change can be a constant, and its (audio-visual) documentation can reveal itself in the medium of film.

After Buildings: Kowloon Walled City, Hong Kong

Similar to buildings and large structures, neighborhoods are born, live and sometimes perish. Kowloon Walled City in Hong Kong, captured by many photographers including Greg Girard and Nick Danziger in the 1980s and 1990s is one of those neighborhoods that did not survive the millennium. As it is widely known, "the Walled City" in Kowloon was one of the most interesting urban villages and high-density living experiences in Asia. It was built as a military fort during the Song dynasty and was improved in 1847. In time it turned into a densely populated neighborhood housing the poor and the illegal. Before being demolished in 1993/1994 - to turn into a park with just few remains of its past - this urban conflagration was a lively landscape of gang activity, drug usage, and gambling as well as a home for refugees.

The Walled City has partly survived in the form of moving imagery. A widely-known documentary, *Baraka* (Fricke, 1992), has managed to capture Kowloon in detail before its demolition through its poetic non-verbal imagery. The film documents the city as "one way of

living" on Earth. *Crime Story* (Wong & Chan, 1993) released the next year is filmed in the at-the-time-abandoned Walled City, contrasting the poor living conditions of this urban village with the lavish life of gangsters in Hong Kong. The film starring Jackie Chan includes several explosions and demolitions in Kowloon that remind the audience of the soon death of the Walled City. There are also action films set and made in Kowloon Walled City before the 1990s. These include *Brothers from the Walled City* (Lam, 1982) and *Long Arm of the Law* (Mak, 1984), both gangster stories. Among these 1980s films, *Bloodsport* (Arnold, 1988) starring Jean-Claude Van Damme is internationally known. In this martial arts film, an ex-military American goes to the Walled City to participate in a deadly tournament.

Though the architectural historian can use these films as audio-visual documents, it can be argued that not much was filmed in the Walled City during its prime time in the second half of the 20th century. In this context, the "filmic regeneration" of the city could be a powerful tool, maybe not to document the city but to understand its lived spaces. The 2024 action film *Twilight of the Warriors: Walled In* (Soi Cheang, dir.) shows the lost city of Kowloon in utmost detail through its life size digital replica with partial physical sets. The art directors and production designers studied the Walled City via archival material like an architectural historian would before building their version of Kowloon. With its makeshift structures, exposed cables, weathered surfaces and wet floors, the city in the film buzzes with action and production, suffering and excitement, day and night. The Walled City is the real protagonist of *Twilight of the Warriors.*

Conclusion

The writing of architectural history involves tapping into many different aspects of a culture and the situation of its built environment - from political circumstances to social norms, from legal requirements to aesthetic preferences, and from technological advances to functional requirements. Each of these are documented in their own way and serve to help with writing this history. It is the opinion of the presenters that film and cinema are a vital and viable resource to aid in the writing of architectural history because they provide documentary evidence that is visual, verbal and textual to understand the "who," "what," "where," "why," and "how" that buildings of the past and present look the way that they do, which is after all, the duty of the architectural historian to explain.

This presentation has consisted of still images from films, however the real value of cinema to writing architectural history is that it provides moving, living, breathing sequences of experiencing architecture in real time. Existing buildings can be virtually experienced and studied through film but more importantly, historians can review audio-visual documentations of lost spaces and places. Going back to our cases, we can [vicariously] take a ferry across the Bosphorus in 1960s Istanbul, drive around 1960s Los Angeles, walk through the ruins of Potsdamer Platz in 1980s Berlin, experience sunrise-to-sunset in any of the "City Symphony" cities, view the Twin Towers from near and far, circulate amongst the ruins of post-war Berlin, and experience the intensely dense phenomenon that once was Kowloon Walled City in Hong Kong.

References

Aldrich, R. (Director). (1959). *Ten Seconds to Hell*, [Film]. UFA Studios/Hammer Films.

Arnold, N. (Director). (1988). *Bloodsport* [Film]. Cannon Films.

Badham, J. (Director). (1977). *Saturday Night Fever,* [Film]. Robert Stigwood Organization.

Barber, S. (2003). *Projected Cities: Cinema and Urban Space* [Book]. Reaktion Books.

Cáp, F. (Director). (1952). *Adventure in Berlin* [Film]. Central Cinema Company Film.

Cavalcanti, A. (Director). (1926). *Nothing but Time* [Film]. Universum-Film A.G.

Cheang, S. (Director). (2024). *Twilight of the Warriors: Walled In* [Film]. Media Asia Films.

Clarke, D. (Ed.). (1997). *The Cinematic City* [Book]. Routledge Publishers.

Demy, J. (Director). (1968). *Model Shop* [Film]. Columbia Pictures.

Fricke, R. (Director). (1992). *Baraka* [Film]. Magidson Films.

Harron, M. (Director). (2000). *American Psycho,* [Film]. Lionsgate.

Hochbaum, W., & Heinrich, G. (Directors). (1933). *Tugboat M17* [Film]. Orbis-Film.

Jonze, S. (Director). (1999). *Being John Malkovich* [Film]. Gramercy Pictures.

Lam, N. C. (Director). (1982). *Brothers from the Walled City* [Film]. Shaw Brothers Studios.

Lamster, M. (Ed.). (2000). *Architecture and Film* [Book]. Princeton Architectural Press.

Landis, J. (Director). (1983). *Trading Places* [Film]. Paramount Pictures.

Mak, J. (Director). (1984). *Long Arm of the Law* [Film]. Bo Ho Film Company Ltd.

Marsh, J. (Director). (2008). *Man on Wire* [Film]. UK Film Council/BBC Storyville.

Mennel, B. (2019). *Cities and Cinema*. Routledge Publishers.

Neumann, D. (1999) *Film Architecture: Metropolis to Blade Runner* [Book]. Prestel Publishers.

Pallasmaa, J. (2008). *The Architecture of Image* [Book]. Rakennustieto Publishing.

Pollack, S. (Director). (1975). *Three Days of the Condor* [Film]. Dino DeLaurentiis Corporation.

Rossellini, R. (Director). (1948). *Germany, Year Zero*. [Film]. Produzione Salvo D'Angelo.

Ruttmann, W. (Director). (1927). *Berlin: Symphony of a Great City* [Film]. Deutsche Vereins-Film.

Sheeler, C., & Strand, P. (Directors). (1921). *Manhatta*, [Film]. Film Arts Guild.

Siegert, H. (Director). (2001). *Berlin Babylon* [Film]. Philip-Gröning-Filmproduktion.

Vertov, D. (Director). (1929). *Man with a Movie Camera* [Film]. Dovzhenko Film Studios.

Wenders, W. (Director). (1987). *Wings of Desire* [Film]. Road Movies Filmproduktion.

Wong, K., & Chan, J. (Directors). (1993). *Crime Story* [Film]. Golden Harvest Company.

Yılmaz, A. (Director). (1966). *Oh, Beautiful Istanbul* [Film]. Be-Ya Film.

Contact email: cwilson@c.ringling.edu

Aotearoa New Zealand Histories: A National Narrative, a National Identity

Jung June Huh, Sungkyunkwan University, Republic of Korea

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
In 2015, a student-led petition called for creating a history curriculum that taught about the New Zealand Land Wars. As a result, under the Ardern government, the *Aotearoa* New Zealand Histories curriculum (ANZHC) was drafted in early 2021, implemented, and taught in schools nationwide since 2023. Initially, there was a bipartisan agreement for the curriculum, but ever since the drafting, there have been ongoing disputes on the content of the curriculum. Prime Minister Jacinda Ardern originally announced that the ANZHC aims to commit "to a better New Zealand that we can all be proud of, and which recognizes the value of every New Zealander" and to cover a "full range of New Zealanders' experiences." With the change in government came the calls for a "rebalancing" of the ongoing political and ideological debates surrounding history education in New Zealand. This article examines the ANZHC through the lens of national identity construction, drawing on modernist theories of nationalism and the role of education in shaping collective memory. ANZHC exemplifies what Gellner highlighted as the specialized, state-sponsored education constructed by the nation's elites that seek to unify the people. The article finds that while the ANZHC represents a significant step towards a bicultural history, there are serious omissions in what is not being taught in the curriculum, and amendments necessary to ensure a more balanced and impartial portrayal of the nation.

Keywords: New Zealand, National Identity, Nationalism, History Curriculum, Education

iafor
The International Academic Forum
www.iafor.org

Introduction

For the past year in New Zealand, the public education system has implemented and begun teaching the national history curriculum called the *Aotearoa* New Zealand Histories Curriculum (ANZHC). The ANZHC itself came to be due to a student-led movement by Rhiannon Magee, Tai Jones, and Leah Bell from Otorohanga College in December 2015. The students, Magee, Jones, and Bell, were "shocked and horrified at the stories told by the *kaumatua*, a Māori elder, who were distraught sharing their ancestors' stories about innocent women and children and elders being burned alive" (Small & Smallman, 2015). This was in reference to the New Zealand Wars that occurred between the 1840s and the 1870s, primarily from disputes over land ownership and sovereignty, fought primarily between the British and colonial forces and the Māori. The petition called for a National Day of Commemoration for the New Zealand Wars and for the history of this conflict to be taught in all schools. There was another petition, this time by the History Teachers' Association, in early 2019. This petition called for the New Zealand Parliament to pass a law to "make compulsory the coherent teaching of our own past across appropriate year levels in our schools" (Ball, 2019). Responding to these calls later in the same year, Ardern announced that New Zealand history would be taught in all schools and *kura* by 2022. Ardern stated, "This Government is committed to a better New Zealand that we can all be proud of and which recognizes the value of every New Zealander." The history curriculum prior to the ANZHC was a limited subject that often overlooked New Zealand history, and it was only offered as an elective during the final three years of secondary school (Sheehan, 2011, 177). Ardern announced that the aim was to cover a "full range of New Zealanders' experiences" for the national history curriculum (Ardern, 2019), including:

- The Arrival of Māori to *Aotearoa* New Zealand
- First encounters and early colonial history of *Aotearoa* New Zealand
- *Te Tiriti o Waitangi* / Treaty of Waitangi and its history
- Colonization of, and immigration to, *Aotearoa* New Zealand, including the New Zealand Wars
- Evolving national identity of *Aotearoa* New Zealand, in the late 19th and early 20th Centuries
- *Aotearoa* New Zealand's role in the Pacific
- *Aotearoa* New Zealand, in the late 20th century and the evolution of a national identity with cultural plurality

Initially, there was bipartisan agreement with the announcement of the ANZHC; however, since the draft and the implementation, there has been growing criticism of the curriculum and the gaps in the content. At that time, National Party's education spokesman Paul Goldsmith criticized the draft by saying it was "lacking in balance and needs revision." He continued, "The themes are mainly about identity and identity politics. That's part of the story – but there are other elements to New Zealand's history" (Collins, 2021). A panel convened by the Royal Society of New Zealand also criticized the draft curriculum by stating, "Despite the prominence given to Māori history, there is a 600-year gap between the arrival of Māori and the arrival of Europeans (Gerritsen, 2021). It is almost as if Māori arrive in New Zealand and become instantly the victims of colonialism." The panel also pointed out that the draft was missing significant history topics or very lightly covered, including women and *wāhine* Māori, labor, welfare, disease and demographics, and economic activity as a driver of New Zealand history. As Belgrave (2020) highlights, these critiques point to the complexities of integrating indigenous voices and local perspectives into New Zealand's education system and the challenges involved in reshaping the curriculum to reflect a more inclusive and accurate portrayal of the country's past.

The ANZHC represents a significant shift in the educational landscape of New Zealand, aiming to foster a more comprehensive understanding of the nation's past to the younger generation. However, since the change of government in late 2023, the right-leaning, National-led coalition government, the policy of equality first as opposed to equity, where actions taken in the past year have seen the undoing of various policies aimed at leveraging Māori inequality. The policy changes include dismantling the Māori Health Authority, changes to language use, and reviewing the principles of the Treaty of Waitangi (Dowling, 2024). This has sparked numerous protests, including the *Hīkoi mō te Tiriti*, which drew over 40,000 New Zealanders objecting to the Treaty Principles bill (Alam-Simmons, 2024). For the ANZHC, there have been calls to "restore balance to the *Aotearoa* New Zealand Histories curriculum." The ACT Party (2024) rebuked the curriculum, stating that it "divides history into villains and victims, contains significant gaps, and entrenches a narrow understanding of New Zealand's history." History teacher Chris Abercrombie, the president of the Post Primary Teachers Association, stated:

> I'm concerned, based on some of the rhetoric coming out of some parts of the coalition government, the place of Māori history will be diminished in the curriculum, and there could be a glossing over of some of the areas of our shared history. (Ruru, 2024)

What precisely the "restored balance" means is yet to be defined. However, what can be examined is what the current curriculum entails, the resources made available for teachers, and what precisely the ANZHC envisions for the national identity of New Zealand. A thorough analysis of the curriculum will give a glimpse of what the future holds for the identity of New Zealand, especially for the newer generation that undertakes this curriculum. This article will explore national identity in the context of education, a brief comparison to other national curricula, and the analysis of the ANZHC and explore what values it emphasizes, the narrative of history, and how it crafts the future identity for the nation.

The National Identity and History Education

This article will examine the nation from the modernist perspective, which views nations and nationalism from the modernization processes and demonstrates that "states, nations and nationalisms, and notably their elites, have mobilized and united populations in novel ways to cope with modern conditions and modern political imperatives" (Smith, 1998, 223-225). Gellner (1983, 56) emphasized culture's influential role in promoting nationalism. He placed the professor as the base of the modern social order, and the monopoly of legitimate education central to the state (1983, 34). Through modernization came state-sponsored education, language, and culture, which converged into one. They thus created a shared culture, a high culture that replaced the low culture, in which nationalism could flourish (O'Leary, 1997, 194). Gellner asserts that the nation is only a socially conceived "construct," an artificially created entity with the possibility of continued existence through the continuation of the perpetuation of the concept by the nation's elites (Finkel, 2016). Kumar (2017, 398) explains Gellner's theory as nationalism being an effect of modernization and that it is "beneficial for modernizing states due to the highly specialized division of labor required for a unified high culture, which is underpinned by a highly developed and specialized education system."
Dieckhoff and Jaffrelot (2005, 19) further explain the importance of education in the national construct. They state:

> The process of national construction, it is argued, thereafter progresses in accordance with the rate of entry into the education system of people living more and more in

> outlying areas, which have understood that learning the dominant language and possessing a basic education are the prerequisites to their social ascent and their ability to defend their rights vis-à-vis the administration of the nation-state in the making… A man's education is by far his most precious investment and, in effect, confers his identity on him.

They explain that it is through the power of the elites in creating a curriculum that confers a particular framework for the national identity that "work through the school system, the army, and literature, not only to reinforce national cohesion in order to develop adhesion to the state but also to exalt the specificity, originality, and glory of the nation" (2005, 66). Public education serves as "the strategic medium" for societal reproduction, acting as both "the foundation of the state's power" and a key tool for transitioning from traditional, hierarchical communities to egalitarian modern societies. According to Neill and colleagues (2022), schools play a crucial role in shaping students' appreciation of historical knowledge, influencing their understanding of the world, their national identity, and other identities. Apple and Christian-Smith (1991, 3) assert that the question of whose knowledge is taught, or "official knowledge," is usually centered around what is included and also what is excluded in textbooks, which signifies more profound political, economic, and cultural relations and histories. ANZHC is precisely this specialized, state-sponsored education constructed by the nation's elites that seek to unify the people. Thus, this article will examine what the nation's elites seek to unify and how the curriculum imagines the national narrative.

Politics of Education Compared

Beilharz and Cox describe Australia and New Zealand as unique cases in the scholarly study of nations and nationalism. They argue, "Australia and New Zealand present a fascinating case regarding nation and nationalism. Both are evidently imperial artifacts, the results of the expansion of the British Empire into the Southland in the eighteenth century" (Beilharz & Cox, 2006, p. 555). While the two nations share a similar colonial background, a shared history, and comparable government structures, they have evolved in strikingly different ways. One critical difference today is New Zealand's significant emphasis on its bicultural heritage—particularly the influence of both *Pākehā* and Māori—while Australia has largely resisted recognizing its Indigenous peoples in its national identity.

In Australia, the historical narrative has traditionally focused on the white settler experience, leading to an insular curriculum that prioritizes the United Kingdom and Australia, with minimal attention to Aboriginal culture and history. The center-left Rudd government attempted to address this imbalance by promising a more inclusive national curriculum. History was included with a stated aim to develop critical historical knowledge, understanding, and skills, focusing on diversity and global engagement, including "Aboriginal and Torres Strait Islander histories and cultures" and "Australia's engagement with Asia." However, Fozdar and Martin's (2021, 148) research highlights the limitations of these efforts, noting:

> The curriculum's failure to critically engage with or fully integrate narratives about Indigenous Australians and non-Anglo migrants, and its neglect of the broader regional and global context (apart from in the early years), perpetuates a monolithic Anglo identity and orientation for young Australians, and encourages a nationalist insularity rather than cosmopolitan openness and global engagement.

Globally, national history curricula have often been used to foster a shared collective identity. Durrani, Kaderi, and Anand's (2020) study of history curricula in India, Pakistan, and Bangladesh demonstrates how selective historical narratives have been employed to shape national identity and promote social cohesion. Their findings reveal that history education in these contexts has been a powerful tool for constructing dominant national ideologies and shaping the "ideal citizen." In Pakistan, Islam was the cornerstone of national identity, while in India, narratives oscillated between secularism and Hindu nationalism. Bangladesh's curriculum prioritized Bengali nationalism, with religion playing a more variable role over time.

Similarly, Nozaki, writing about the Japanese history textbook controversy, observes: "A modern democratic nation with a universal (state) education system always faces a curriculum question concerning the knowledge taught in its schools: Whose knowledge ought to be presented to students, who ought to decide it, and by what processes?" (Nozaki, 2008, 276). The same questions apply to the ANZHC, where Labour politicians have voiced their stance on deciding what knowledge to include, what ought to be taught, and how it should be presented. National identity is a flexible construct, open to influence and manipulation from multiple sources. Governments play a crucial role in developing and articulating specific versions of national identity, using tools such as education to embed a particular narrative (Roseneil and Seymour, 1999, 201). Given the above examples of how a history curriculum has been used for national identity, how does New Zealand's approach differ? What are the foundations of the New Zealand education system, and what driving ideologies underpin its national history narrative?

National Identity of New Zealand and Education

Liu (2005, 1) explain that although New Zealanders' quest to arrive at a singular definition of their national identity is ongoing, "what is clear is that the process of identity-making here is dynamic." Liu (2005, 12) also highlights that to understand New Zealand's identity, one must comprehend the dynamic interplay between the shared knowledge on which it is based and the comparative context or divisions in the social environment that defines who is included and excluded from the social identity. Historian Claudia Orange (2021) also highlights the Treaty of Waitangi as a cornerstone of New Zealand's historical and social identity, emphasizing its role in shaping the nation's bicultural framework. Historian Michael King (2004) also emphasized the importance of this in the bicultural framework. He highlighted that New Zealand's identity does not exist in isolation; instead, it is an ongoing interaction between the Māori and *Pākehā* heritages, which together form the foundation of this nation.

What is particularly interesting is that New Zealand's history can be configured as narrative in at least two ways: from a bicultural perspective or a liberal democratic perspective. The liberal democratic perspective refers to the "inclusive form of democracy guided by the ideals of freedom and equality, operating within an open society with a free market economy, governed by an elected government under the rule of law" (Liu, 2005, 4). Liu explains that this perspective begins with Great Britain as the centerpiece and also holds to great importance the events of the arrival of Europeans, the signing of the Treaty of Waitangi, the colonization of New Zealand, the Land Wars, the formation of the government, women's suffrage, and the World Wars. In this perspective, ANZAC Day is the most potent symbol and is celebrated for the sacrifice of the ANZAC forces that fought against authoritarian governance. In contrast, the bicultural perspective places both the Māori and *Pākehā* heritage as the center of the narrative and holds *Te Tiriti o Waitangi* as the most powerful symbol. Liu and colleagues (1999) explored the question regarding the most important historical events in New Zealand history

with a general sample of adults and university students. It was revealed that there are some differences, yet the two accounts share a significant overlap. Nevertheless, while there were some shared events of importance, the Māori students selected the events central to the liberal democratic narrative only as regarded as important to the history of Māori, such as the Māori Declaration of Independence and the Māori Cultural Renaissance. The findings are shown in the tables below.

Table 1: Ten Most Important Events in New Zealand History According to Māori and Pākehā Students

	Māori		Pākehā	
1	Tiriti o Waitangi	100%	Tiriti o Waitangi	94%
2	Land Wars	71%	European Arrival	67%
3	Māori Declaration of Independence	58%	Land Wars	53%
4	European Arrival	54%	Women's Suffrage	49%
5	Kupe's Arrival	50%	World War I	48%
6	Māori Arrival	46%	World War II	47%
7	Māori Language Revival	33%	Māori Arrival	44%
8	Abel Tasman's Voyage	24%	European Settlement	42%
9	Māori Land March	21%	Springbok Tour	24%
10	Horoua Waka Arrival	21%	Great Depression	18%
11	Māori Resource Payoffs	21%		

Māori (N=24), Pākehā (N=87)

Table 2: Ten Most Important Events in New Zealand History According to General Sample of Māori and Pākehā

	Māori		Pākehā	
1	Tiriti o Waitangi	54%	Tiriti o Waitangi	69%
2	Land Wars	35%	World Wars	66%
3	Māori/Polynesia Arrival	30%	Māori/Polynesia Arrival	41%
4	European Arrival	30%	European Arrival	40%
5	World Wars	30%	The Land Wars	35%
6	Women's Suffrage	19%	Women's Suffrage	29%
7	Colonization	16%	Arrival of James Cook	28%
8	Education Act passed providing free education	14%	Colonization	16%
9	NZ became independent state	14%	The Depression	14%
10	Musket Wars	14%	1981 Springbok Tour	14%
11	NZ government formed	14%		
12	1981 Springbok Tour	14%		

Māori (N=37), Pākehā (N=94)

The ANZHC attempts to forge a history curriculum based solely on the bicultural narrative of New Zealand history instead of the liberal democratic narrative. The curriculum challenges the long-standing trend of "forgetting" the contentious past of the nation, notably the significant nineteenth-century conflicts that have established settler dominance (Bell & Russell, 2022). Neill and colleagues (2022) stated that, despite some criticism, the final version of the ANZHC successfully avoided significant political or academic conflicts, largely due to its postcolonial focus. The Ministry of Education effectively managed the process by steering the debate

towards curriculum content rather than allowing it to expand into broader cultural issues. The ANZHC is a statewide effort to place Māori as the central focus of New Zealand's national identity, recognizing their integral role in the nation's history and cultural narrative. It is no wonder why the focus on the bicultural narrative has led the conservative right-wing parties to advocate for "rebalancing" of the curriculum, reflecting the ongoing debates over how the history of New Zealand should be taught in schools. The curriculum is subject to change due to shifting priorities in government and education. Currently, what is available is the teaching resources made accessible to anyone online. While this is also stated to be closing and changing to another website, the current information is this article's primary source of analysis. My research questions are as follows: What is the central message of the ANZHC? What is the national identity it seeks to promote in the public education of New Zealand history? In addition, what omissions are present, and what could the National-led coalition government's proposed rebalance include (Murray, 2024)? I will use content analysis of the online materials as this research method. I aim to determine the underlying national identity messages conveyed through ANZHC. Furthermore, I will consider how these narratives align with or diverge from the two perspectives on New Zealand's national identity, the bicultural and the liberal democratic, including the potential curriculum changes the National coalition government might include.

Results

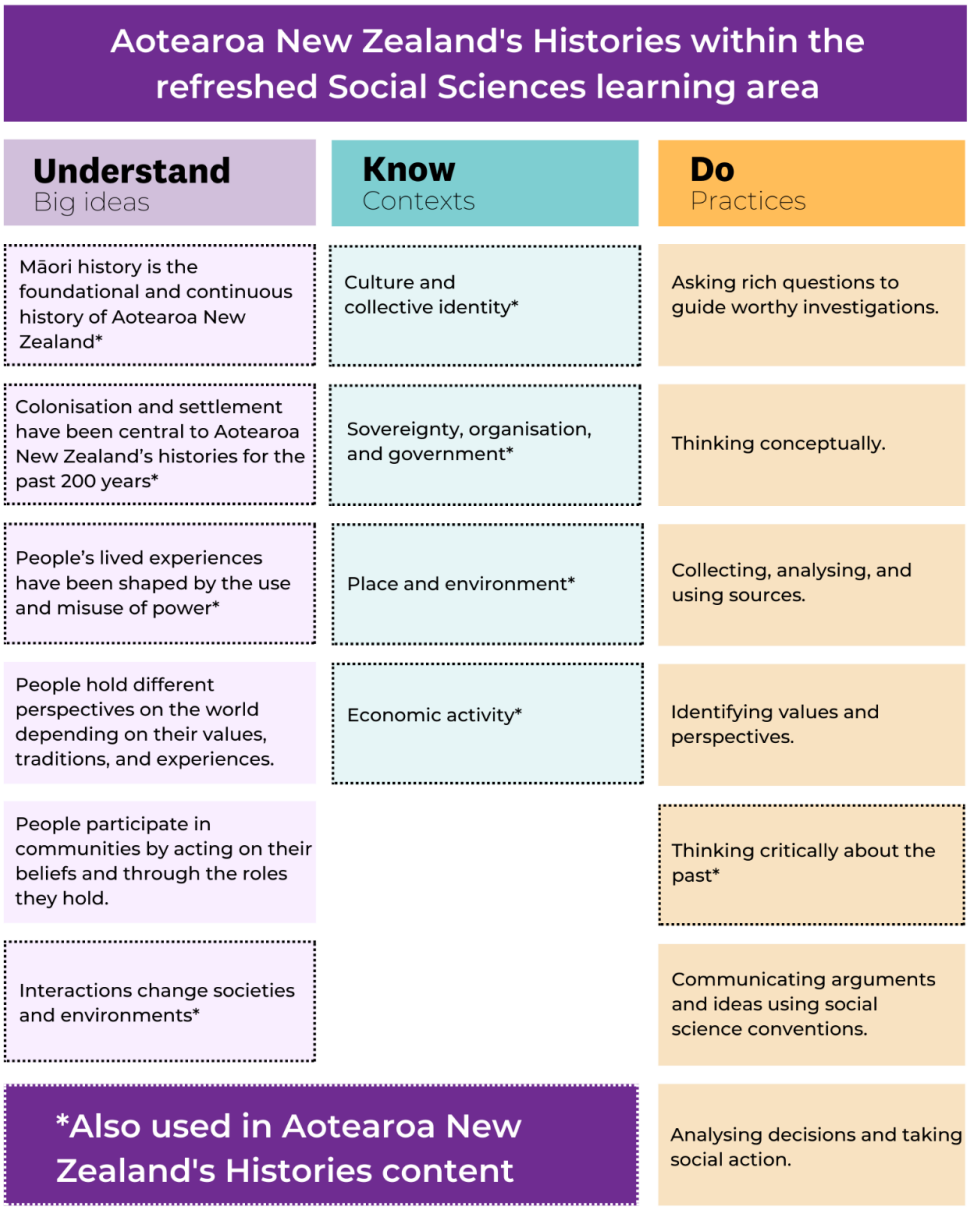
ANZHC is structured under three key elements: understand, know, and do. They are not separate elements, nor are they in a sequence. The curriculum is designed to allow teachers to design lessons and learning experiences that weave the three elements together. The ANZHC website states that the curriculum is designed in a progression model which "gives clarity about the direction of learning and the key outcomes that matter across the phases, enabling teachers and *kaiako*, *ākonga*, and *whānau* to know what is important and how learning develops."

The ANZHC can be divided into four main groups according to the grades: years 1-3, years 4-6, years 7-8 and years 9-10. As of July 2024, there are 39 resources available to aid teachers with the curriculum, which overlap year groups, allowing teachers to use one resource for multiple year groups. Another way the resources are categorized is through the four themes, which include resources that overlap with the others; these are:

1. *Whakapapa me te whanaungatanga*; Culture and identity
2. *Tino rangatiratanga me te kāwanatanga*; Government and organisation
3. *Tūrangawaewae me te kaitiakitanga*; Place and environment
4. *Kōwhiringa ohaoha me te whai orange*; Economic activity

I will examine the content of the ANZHC according to the four themes. Beginning with culture and identity.

Figure 1: ANZHC Content Structure With the Three Elements



Culture and Identity

The culture and identity portion of the curriculum resources includes eight teaching guidance and four teaching resources. These resources delve into New Zealand minority groups with less representation in the main body of New Zealand history. There are *Tūhura* (discover/explore) documents, including "migration and settlement," "where we came from," "our changing identities," and "contested identities." Another repeated document file type is titled: "Our Stories," which sheds light on aspects of New Zealand history that have rarely been explored in the past, including the stories of Deaf New Zealanders, disabled New Zealanders, Jewish New Zealanders, New Zealand Indians, and the LGBTQIA+ community, Chinese histories, and Pacific people. Within one document, various links are available to other resources, such as stories, cartoons, videos, websites, and news articles that give more information and teaching materials and readings for teachers to use. To illustrate the resources in one of these documents, the teaching guidance on "Our stories: Chinese histories" includes eight separate documents. "Our Stories: Pacific People" includes ten separate documents. A sample of these documents,

teaching resources, and *Tūhura* documents are listed below. The theme of "culture and identity" is a major recurring element in the ANZHC. Key historical events highlighted include the poll tax on Chinese migrants, racism against Chinese gold miners, the Dawn Raids, the Polynesian Panthers, and other instances of discrimination and resilience. In these events, European New Zealanders are often portrayed as the dominant group responsible for the negative repercussions, shaping the experiences of marginalized communities while being positioned as the "other."

Figure 2: *Tūhura* Documents

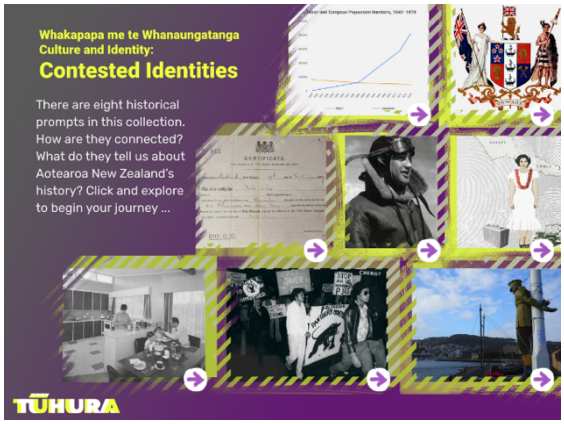
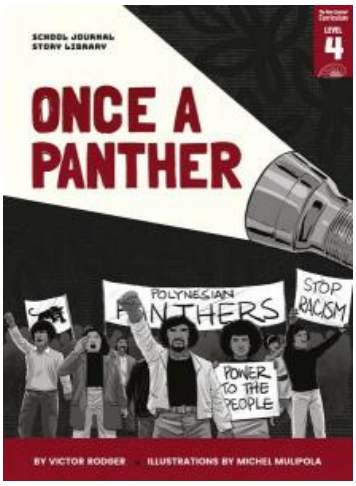
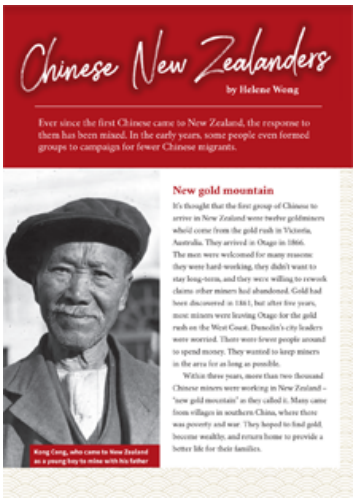
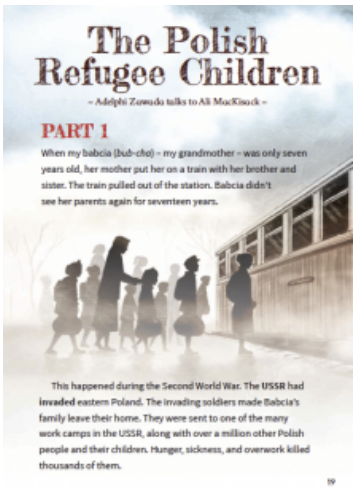
	**Contested Identities** Eight historical prompts include: Māori and European population numbers, coat of arms, poll tax certificate for the Chinese migrants, Portrait of Johnny Pohe, the first Māori to train with the Royal New Zealand Air Force, legal alien story of Trude Barford from Samoa, and the model New Zealand family and the Polynesian Panthers.
	Migration and Settlement Stories Eight historical prompts include: *Te Aurere-iti* (sailing boat), star map artwork of Nikau Hindin, *Pākē* a rain cape that Māori wore, whalers' trypot that was used by whalers to turn whale fat into oil, Hunter family's piano (early British migrant), Choie Sew Hoy's shop sign in Dunedin, Polish refugee children with Peter Fraser, *Ngatu* the Tongan tapa cloth.
	Where We Came From Eight historical prompts include *Kupe and te Wheke* (Māori legend), fishing lure (*pā*) used for fishing by ancient Māori settlements, kumara and how the Māori grew it in the climate of New Zealand, hue a vegetable like pumpkin that is used for many things, *Moriori rākau momori* which are engravings found in tree on *Rēkohu* (Chatham Islands), *Tokelau foe* (paddle), waka ama a outrigger canoe that is now used for racing, and Syria – Ferial Abdul Hameed an immigrant to New Zealand.

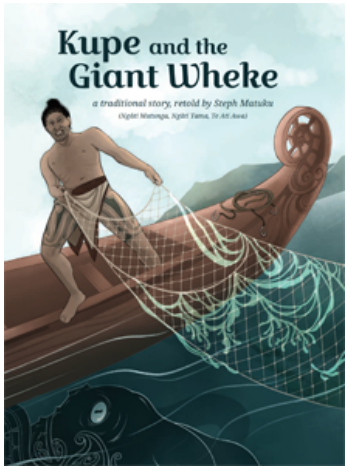
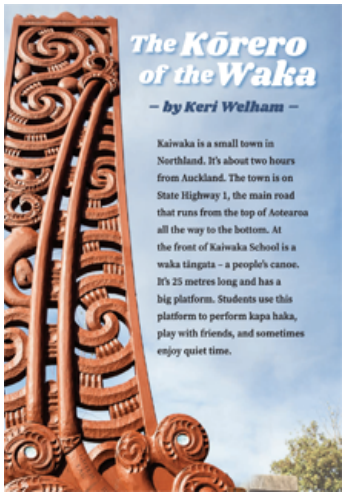
Figure 3: Sample Our Stories Learning Documents

	**Once a Panther by Victor Rodger** This fictional comic is based on the true story of the Polynesian Panthers in 1970s New Zealand. Inspired by the Black Panther Party in the United States, the Polynesian Panthers were a group of young New Zealanders who wanted to tackle the widespread prejudice faced by Pacific communities.	Series: School Journal Story Library Learning area: English, Social Sciences Curriculum level: 4 Publication date: March 2019
	**Chinese New Zealanders by Helene Wong** This document provides an overview of migration to *Aotearoa* New Zealand from the 1860s until the present day. The article outlines push-and-pull factors that contributed to various waves of migration, how *Pākehā* New Zealanders responded to these waves, and adaptations made by Chinese migrants as they adjusted to their new home.	Series: School Journal Level 4 November 2019 Learning area: English, Social Sciences Curriculum level: 4 In: School Journal Level 4 November 2019 Publication date: November 2019
	**The Polish Refugee by Ali MacKisack** This true story of Adelphi Zawada's grandparents will be engaging for students in year 4, although it is complex and presents some interesting challenges. Adelphi tells how her grandparents, as children, along with over a million other Polish people, were sent to work camps in Russia following the invasion of their country by the USSR during the Second World War.	Series: School Journal Level 2 November 2016 Learning area: English, Social Sciences Curriculum level: 2 In: School Journal Level 2 November 2016 Publication date: November 2016

Place and Environment

The Place and Environment section includes mostly documents found in the other tabs. It only includes four documents: "A Sense of Place," "Our Stories: Pacific Peoples," "Our Stories: Chinese Histories," and "Our Stories: Refugee Histories." The one unique document here, is "A sense of place," "A struggle for land and sovereignty." It is targeted towards the junior levels of Years 1-3 of primary school. Teachers are given several resources and provide examples of how to use the five main texts to explore the context of *tūrangawaewae me te kaitiakitanga*, place, and environment. These resources include the story of *Kupe* and the Giant *Wheke*, The *Kōrero* of the Waka, *Pepeha*, *Kākahu Pekepeke*, and *Tōku Pepeha*.

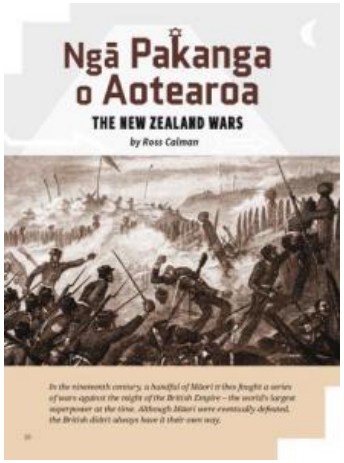
Figure 4: A Sense of Place

	***Kupe* and the Giant *Wheke* by Steph Matuku** This traditional tale is featured in the oral traditions of many iwi. It tells of how *Kupe* discovered *Aotearoa* while pursuing a giant *wheke* (octopus) across the Pacific. As he chased the creature around *Aotearoa*, *Kupe* explored the new land and named many places.	Series: School Journal Level 2 May 2020 Learning area: English, Social Sciences Curriculum level: 2 In: School Journal Level 2 May 2020 Publication date: May 2020
	***Kōrero* of the *Waka* by Keri Welham** *Te Waka Rangimārie o Kaiwaka* is a 25-metre *waka* at the entrance to Kaiwaka School in Northland. The *waka* welcomes people to the school and is also enjoyed as a *kapa haka* platform, a play area, and a quiet place to sit. This article focuses on the *whakairo* (carvings) of the *waka*, which tell stories about the *Kaiwaka* area and the school community.	Series: School Journal Level 2 November 2020 Learning area: English, The Arts, Social Sciences Curriculum level: 2 In: School Journal Level 2 November 2020 Publication date: November 2020

Government and Organisation

This section also repeats various documents already found in above theme. The one unique document is titled "A struggle for land and sovereignty." The document is about the struggles of the Māori in resisting colonialism, retain. The document explores three texts from the *School Journal* series that can support learning about *tino rangatiratanga* and *kāwanatanga*, and how Māori defended their land, and upheld *mana motuhake*.

Figure 5: Struggle for Land and Sovereignty

	***Hakaraia*: Warrior Peacemaker by Mark Derby** The life of an important Māori leader is remembered.	Series: School Journal Level 4 May 2015 Learning area: English, Social Sciences Curriculum level: 4 In: School Journal Level 4 May 201 Publication date: May 2015
	***Ngā Pakanga o Aotearoa*/The New Zealand Wars by Ross Calman** "The New Zealand Wars" describes the wars fought between 1845 and 1872. The wars were about who controlled the country and who owned the land. This long and fascinating article explains the circumstances of the wars, including the areas and tribes involved. There are good general descriptions of the main confrontations and key players, both Māori and British.	Series: School Journal Level 4 November 2014 Learning area: Social Sciences Curriculum level: 4 In: School Journal Level 4 November 2014 Publication date: November 2014
	Ngā Tātarakihi o Parihaka This story, set at *Parihaka* just prior to the government raid in 1881, is told from the perspective of a young girl who was living there. The author's great-grandmother was living at *Parihaka* at that time, and the story is partially based on oral history.	Series: School Journal Level 4 May 2016 Curriculum level: 4 In: School Journal Level 4 May 2016 Publication date: May 2016 Order this text

Economic Activity

While economic activity is also among the four themes, only two documents can be found. They are the two teaching resources "Connecting Current Events to the Past: The Ventnor Story"

and "Connecting Current Events to the Past: The Dawn Raids." The Ventnor story retells the tragic accident of SS Ventnor that sank off the coast of Hokianga, which claimed the lives of 13 people alongside the remains of 499 Chinese men, most of whom were gold miners who were part of the Otago gold rush. This story exemplifies the Chinese and the Māori coming together to honor the dead. The document includes five links teachers can use to teach their students and four links for more information about Chinese New Zealand history. Similarly, the document "The Dawn Raids" retells the tragic story of the government-led raids in the 1970s targeting Pacific Island communities in New Zealand. These raids aimed to find and deport individuals who had overstayed their visas despite many Pacific migrants having been actively recruited to support the country's labor shortages.

Conclusion

This article finds that the national narrative of history in the ANZHC lacks coverage of New Zealand's history in some significant areas. Indeed, it presents voices that have been silenced or have not been explored or taught in public education in the past, such as LGBTQIA+, people with disabilities, or Chinese New Zealanders. While the centering of the Māori perspective and the inclusion of minority groups is indeed important, a major flaw in the curriculum is the vast amount of history it does not explore. The most significant omission in ANZHC is excluding the largest ethnic group in New Zealand, those of British and Irish ancestry. While there are documents with informative resources for the Chinese, Pacific People, and the Māori, *Pākehā* New Zealanders are left out of the curriculum. The formation of the New Zealand government, the British monarchy, and women's suffrage are all important historical events that are left out of the ANZHC. The bicultural narrative here includes the Māori and, on the other side, the minority New Zealanders rather than the *Pākehā*, who account for 67% of the population.

Furthermore, the curriculum also leaves out major global wars that have shaped the nation, such as the stories of the ANZAC and their involvement in World War I, World War II, and New Zealand's role in the Korean War, the Vietnam War, the Malayan Emergency, and in peacekeeping missions. Domestically, crucial moments in New Zealand's landmark protests, such as the 1953 Royal Tour, the anti-nuclear movement, the Springbok Tour of 1981, and the Rainbow Warrior bombing, are not adequately explored. Additionally, recent historical events, such as New Zealand's response to COVID-19 and the Christchurch Mosque attacks, could also be included to provide valuable contemporary perspectives to enhance students' understanding of the nation in the present day and historical continuity without placing the narrative on one side or the other.

The ANZHC envisions a national identity embedded in biculturalism, inclusivity, and critical engagement with history. It seeks to educate students as early as primary school to instill a national identity based on the diverse threads that make up the New Zealand community. It briefly explores various areas of New Zealand's history, from Māori land wars to the Chinese miners and the Polynesian Panthers. However, it comes short of its aim to recognize "the value of every New Zealander," as it excludes the stories of the *Pākehā* New Zealander, the liberal democratic narrative of New Zealand's history. These gaps and limitations suggest room for improvement in representing the full spectrum of New Zealanders' experiences and global connections. It remains to be seen whether the rebalancing of the ANZHC will genuinely expand to include a more balanced and comprehensive narrative, ensuring that all aspects of New Zealand's diverse history are acknowledged and taught with equal depth and nuance.

References

ACT New Zealand. (2024). *ERO report bolsters case for history curriculum revamp*. https://www.act.org.nz/ero_report_bolsters_case_for_history_curriculum_revamp

Alam-Simmons, A. (2024, November 24). *Hīkoi mō Te Tiriti: Walking into the future*. E-Tangata. https://e-tangata.co.nz/reflections/hikoi-mo-te-tiriti-walking-into-the-future/

Apple, M. W., & Christian-Smith, L. (1991). *The Politics of the Textbook.* Routledge.

Ardern, J. (2019, September 12). *NZ history to be taught in all schools*. The Beehive. https://www.beehive.govt.nz/release/nz-history-be-taught-all-schools

Ball, G. (2019, January 31). *Petition of Graeme Ball on behalf of the New Zealand History Teachers' Association: "Give me my History!" - teaching our nation's past in our schools*. New Zealand Parliament. https://petitions.parliament.nz/5a57f491-94a5-42cb-979e-d9268c045235

Beilharz, P., & Cox, L. (2006). "Australia and New Zealand: Nation, Nationalism and Globalization." *Theory, Culture & Society, 23*(5), 555–578. https://doi.org/10.1177/0263276406069880

Belgrave, M. (2020). Brave new curriculum: Aotearoa New Zealand history and New Zealand's schools. *International Public History, 3*(2). https://doi.org/10.1515/iph-2020-2007

Bell, A., & Russell, E. (2022). Aotearoa New Zealand's new national history curriculum and histories of mourning. *New Zealand Journal of Educational Studies, 57*, 21–35. https://doi.org/10.1007/s40841-021-00231-2

Collins, S. (2021, September 2). *NZ history curriculum slammed as "unbalanced."* NZ Herald. https://www.nzherald.co.nz/kahu/national-partys-paul-goldsmith-slams-aotearoa-nz-histories-curriculum-as-lacking-in-balance/C5MRXHSZXUIDWXXZI2BF4VMMBQ/

Dieckhoff, A., & Jaffrelot, C. (2005). *Revisiting nationalism.* Hurst & Co.

Dowling, T. (2024, July 29). *Māori leaders criticise New Zealand coalition government policy changes*. The Guardian. https://www.theguardian.com/world/article/2024/jul/29/maori-leaders-new-zealand-coalition-government-policy-changes

Durrani, K., Kaderi, S., & Anand, A. (2020). National identity and the history curriculum: Nation making in the shadow of partition. In P. M. Sarangapani & R. Pappu (Eds.), *Handbook of education systems in South Asia* (pp. 1–27).

Finkel, A. (2016). "Gellner's Theory of Nationalism Revisited." *Nationalism Studies Journal, 12*(3), 45–60.

Fozdar, F., & Martin, C. A. (2021). Making history: The Australian history curriculum and national identity. *Australian Journal of Politics & History*, *67*(1), 130–149. https://doi.org/10.1111/ajph.12766

Gellner, E. (1983). *Nations and Nationalism.* Cornell University Press.

Gerritsen, J. (2021, May 19). *Draft history curriculum misses 600 years of Aotearoa New Zealand's past*. RNZ. https://www.rnz.co.nz/news/national/442935/draft-history-curriculum-misses-600-years-of-aotearoa-new-zealand-s-past

King, M. (2004). *Being Pakeha now: Reflections and recollections of a white native*. Penguin Books.

Kumar, K. (2017). "Gellner's Theory and Modernization." *Journal of Modern History, 89*(2), 398–405. https://doi.org/10.1086/691082

Liu, J. H. (2005). History and identity: A system of checks and balances for Aotearoa/New Zealand. *New Zealand identities: Departures and destinations*, 69-87.

Liu, J. H., Wilson, M. S., McClure, J., & Higgins, T. R. (1999). Social identity and the perception of history: Cultural representations of Aotearoa/New Zealand. *European Journal of Social Psychology, 29*(8), 1021-1035. https://doi.org/10.1002/(SICI)1099-0992(199912)29:8%3C1021::AID-EJSP975%3E3.0.CO;2-4

Ministry of Education. (2025). *Aotearoa New Zealand's histories*. Retrieved February 6, 2025, from https://aotearoahistories.education.govt.nz/

Ministry of Education. (2025). *Understand, know, do framework*. Aotearoa New Zealand's Histories. https://aotearoahistories.education.govt.nz/about/content-structure

Murray, A. (2024, April 4). 'Restoring balance' to history lessons: What are kids learning? *1News*. https://www.1news.co.nz/2024/04/04/restoring-balance-to-history-lessons-what-are-kids-learning/

Neill, C., Belgrave, M., & Oliveira, G. (2022). Consulting the past: Creating a national history curriculum in Aotearoa New Zealand. *Public History Review*, *29*, 128-141. https://doi.org/10.5130/phrj.v29i0.8216

Nozaki, Y. (2008). *War memory, nationalism and education in post-war Japan: The Japanese history textbook controversy and Ienaga Saburo's court challenges*. Routledge. https://doi.org/10.1086/650713

O'Leary, B. (1997). "On the Nature of Nationalism: An Appraisal of Ernest Gellner's Writings on Nationalism." *British Journal of Political Science, 27*(2), 191–222. https://doi.org/10.1017/S0007123497000112

Orange, C. (2021). *The Treaty of Waitangi | Te Tiriti o Waitangi: An illustrated history.* Bridget Williams Books.

Roseneil, S., & Seymour, J. (Eds.). (1999). *Practising identities: Power and resistance*. Palgrave Macmillan.

Ruru, K. (2024, October 27). Teachers worried 'restoring balance' history curriculum may send Aotearoa backwards. *Stuff.* Retrieved from https://www.stuff.co.nz/nz-news/360461785/teachers-worried-restoring-balance-history-curriculum-may-send-aotearoa-backwards

Sheehan, M. (2011). A question of bias? Politics, assessment and the New Zealand history curriculum. *History of Education Review, 40*(2), 176-188. https://doi.org/10.1108/08198691111140802

Small, V., & Smallman, E. R. (2015). *Otorohanga College students deliver Land Wars petition to Parliament*. Stuff. https://www.stuff.co.nz/waikato-times/news/74876330/otorohanga-college-students-deliver-land-wars-petition-to-parliament

Smith, A. D. (1998). *Nationalism and Modernism: A Critical Survey of Recent Theories of Nations and Nationalism.* Routledge.

Contact email: kevinjhuh@gmail.com

The Impact of Fulbright Scholarships on Alumni: An Analysis of Social Capital Upon Their Return Home

Lorraine Kouao, University of Hawai'i at Mānoa, United States

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Educational exchange programs can play a key role in public diplomacy and economic development. During these programs, students acquire skills and networks that are considered valuable in their home country. Eventually, these programs tend to amplify students' socioeconomic status upon their return and strengthen nations' relationships through academic networks. This study aims to better understand the impact of educational exchange programs on international students after their experiences abroad. By using the social capital theory, this study explores the socio-economic experiences of Fulbright alumni from developing countries upon their return home. A literature review was conducted to analyze Fulbright alumni's experiences in their home countries. How are Fulbright scholarships impacting the careers of alumni upon their return home? In what ways have Fulbright experiences abroad impacted alumni's professional development at home? The findings show that Fulbright exchange programs allow alumni to grow their networks with fellow Fulbright alumni in other countries. These international networks not only enable these alumni to maintain relationships abroad but also create links with organizations abroad for more opportunities academically and professionally. The findings imply that individuals who are granted the opportunities of Fulbright exchange programs may benefit in several areas such as advancing their academic, professional, and international networks. While most of these alumni may indeed reach leadership positions, social inequality is deepening in most of these countries with more privileges to Fulbright alumni. The significance of this study is that it helps us understand the role of educational exchange programs in development and diplomatic relations.

Keywords: Students, Mobility, Diplomacy, Social Capital, Higher Education

iafor
The International Academic Forum
www.iafor.org

Introduction

Within the past few decades, several countries, especially Western states, have extended their soft power in diplomacy and political influence through education. According to Leguey-Feilleux (2009), diplomacy is "the idea of communicating, interacting, maintaining contact, and negotiating with states and other international actors" (p. 1). Originally focused on state representatives and governmental actors, diplomacy expanded to "public diplomacy" with a wide variety of actors and relationships intended to build and maintain connections among nations. In more recent years, countries have extended these international relationships through education. Education and exchange programs now play an important role in promoting national interests and spreading influence across nations. These influences, often referred to as "soft power", have commonly been used in educational programs to shape friendships between nations through ideas, culture, and social networks. One example of public diplomacy is the Fulbright scholarship, a program sponsored by the US Department of State and designed to "foster mutual understanding between people and nations" (Maluki & Waithaka, 2016, p. 5). This program has led to one of the largest movements of students and scholars around the world and continues to sponsor citizens and leaders from more than 160 countries. Today, the Fulbright program is one of the great diplomatic assets of the United States (US) with participants claiming to have better appreciation for the US and its people after their experiences abroad. While most Fullbright alumni share feedback from their experiences abroad, less has been said about the factors and impacts of these experiences upon their return home. This study aims to better understand the impact of educational exchange programs, especially the Fulbright program, on students from developing countries seeking higher education in the Global North. By using the social capital theory, this study explores the influences of exchange programs on alumni's socioeconomic experiences upon their return home. In this sense, what are Fulbright alumni's experiences upon re-entry? In what ways has the Fulbright experience abroad impacted alumni's professional development and careers upon returning home? Analysis of these questions resulted in five main themes: benefits of better academic and professional opportunities, higher cultural awareness, easier access to community engagement projects, including governmental positions, and acquisition of global capital such as skills and knowledge. This study's importance lies in its analysis of the role of educational exchange programs in the development field. The implication of this study is to provide insights on policy reforms for better impacts of exchange programs both at the national and global level and to find innovative ways to maintain diplomatic relationships between the US and its sponsor countries.

Theoretical Framework

This study is analyzed through the lens of social capital theory. Social capital theory emerged from the limitations of standard economic theories as they fail to explain economic disparities across countries with similar environments in terms of capital such as financial, physical, and natural (Bhandari & Yasunobu, 2009). For many decades, these theories assumed that economic variables were the only predictors of variations in economic outcomes with less account of social and cultural factors on economic development. However, these limitations brought more attention to socio-cultural factors in economic theories, suggesting that economic activity is deeply embedded in social structure with key cultural factors. As a result, the term "social capital" emerged in the late 1990s with French sociologist Pierre Bourdieu who originally mentioned it to recognize that not only human capital was important in economic and social outcomes, but cultural factors as well as social factors (Bourdieu, 1986).

Social capital theory argues that economic capital is embedded in social networks as they provide access to more opportunities such as information, social welfare, political participation, and government responsiveness (Lin, 2001). These opportunities are due to the fact that networks are rooted in memberships, relationships, and obligations that foster mutual benefits and collective actions among individuals in a designated social group. As Bourdieu states, social capital represents a "collectively owned asset endowing members with credits" (Bourdieu, 1986, p. 248). Over the years, this theory was shaped into four different types: Structural and cognitive social capital, bonding, bridging, and linking social capital, strong and weak ties, and horizontal and vertical networks social capital (Bhandari & Yasunobu, 2009). The first type relates to the pattern of social networks connected by the rules and procedures that govern them. Bonding, bridging, and linking social capital refers to ties among people based on kinship, membership, and related situations. The strong and weak ties define social capital according to the strength of social ties. Lastly, the horizontal and vertical networks refer to the lateral ties between people of similar status in a community (horizontal), and ties between people of different hierarchies among people (vertical). This theoretical framework is important because it makes "economic discourse richer, more valuable, better able to capture the nuances of the real world, and make them more useful" (Guiso et al., 2004, p. 12). For this study, social capital is valuable in the sense that it will help explain behaviors that are embedded in Fulbright social networks both at the micro and macro levels.

Method

This study was based on a literature review. The literature review was designed to retrieve and locate documents centered on the experience of Fulbright alumni upon their return home. For the purpose of this study, the method specifically focused on an integrative literature review. According to Torraco (2005), an integrative literature review is a form of research that reviews literature on a topic in an integrated way "such that new frameworks and perspectives on the topic are generated" (p. 1). This integrative literature review is important because it gathers data from various research designs and provides a broader summary to reach comprehensive and reliable conclusions.

Data Collection

The search strategy was designed to better understand the impact of the Fulbright program on students from developing countries seeking higher education in the Global North. According to the OECD, a developing country is referred to as a sovereign state with less developed natural and human resources relative to other countries (Dimaranan et al., 2004). Data focused on the socio-economic experiences of Fulbright alumni upon their return home. Some keywords were "Fullbright", "alumni", "developing countries", "Social capital", "socio-economic", "Diplomacy", and "Development". Data was searched on databases and academic journals such as JSTOR, Web of Science, EBSCO, and SCOPUS.

Selection

After review, selected articles were mainly centered around the experiences of Fulbright alumni upon their return home. For the purpose of this study, these articles specifically focused on the student's professional and academic experiences. Another criterion was a clear research methodology, either qualitative or quantitative, for comparative themes between the statistical trends and students' quotes on their experiences. However, I excluded studies on Fulbright alumni from the Global North and participants who were still pursuing their Fulbright program.

According to these criteria, 43 articles were selected. These articles were reviewed through screening of titles, abstracts, and keywords to better determine their relevance to the research interest.

Thematic Analysis

After review, 32 articles were retained. Articles include academic peer-reviewed and scholarly articles. Accordingly, documents were analyzed from a thematic perspective to conduct an informed analysis and constructive insights into the student's experiences (Levac et al., 2010). Indeed, this thematic analysis was informed by the research questions and guided the findings. Findings include case studies and research papers and help understand Fulbright alumni's experiences at a wider scale.

Literature Review

The findings depict Fulbright alumni's experiences upon their return home. After analysis of the literature, five main themes emerged. First, alumni tend to have more academic and professional opportunities after their experiences abroad. One of the reasons is that students possess academic credentials from host universities that are considered valuable back home. This is the case in Hong Kong where connections built by education leaders in Vancouver, US increased the value of credentials from the Vancouver-based University of British Columbia and prioritized the careers of scholars who possess such credentials (Roberts, 2016). Another reason is the connection between Fulbright alumni and international universities. As most Fulbright alumni tend to keep their collaboration ties with colleagues abroad, they benefit from more access to research and related academic opportunities upon return. In the case of doctoral students, co-authorships and skills acquired abroad propel Fulbright alumni to faculty hires and further transnational research networks (Shen et al., 2022). These international collaborations show the importance of educational exchange for the so-called knowledge circulation' as "students and faculty need to acquire sophisticated knowledge of the world, including foreign languages, cultures, and perspectives" to engage in this interconnected world (Shen et al., 2022, p. 1329). Eventually, alumni are more likely to engage in academic and professional activities with a broader network of researchers and scholars, making their transition back home rewarding.

Second, Fulbright alumni reported higher awareness of cultural diversity and more empathy for cultural differences upon returning home. In his study on Chinese Fulbright participants, Roberts (2016) states that alumni tend to have a deeper understanding of the US with "profound insights into the society, people, culture, and political systems" (p. 187). Likewise, Fulbright alumni are more aware of other cultures as they build relationships with a broader network of friends, advisors, and mentors from diverse cultural backgrounds. As one participant shared in You's (2024) study, "I met people from different parts of the world and became better at coping with cultural differences" (p. 7). Another participant shared his experience by stating that "there you see people with different hair colors, piercings, tattoos, and you start viewing it as a normal thing. The same goes for the LGBT community" (Jonbekova, 2024, p. 771). Third, the alumni felt more empowered and engaged in community projects for social change. After being exposed to global issues and social movements abroad, Fulbright alumni shared a desire to make a change in their home countries, especially among underrepresented communities (Meeks & Parenti, 2021). This is the case of Fulbright graduates from Kazakhstan who brought positive changes to their society by improving the workplace with a company that provides filtered drinking water to offices and schools, by introducing up-to-date software and practices,

and by teaching eco-thinking with more awareness on reusable water bottles (Jonbekova, 2024). At the educational level, alumni are also inclined to seek modifications to the national pedagogy, with more student-centered and experiential experiences observed in the US (Staton & Jalil, 2017).

Fourth, working for governmental and state positions has been a common experience among Fulbright alumni upon their return. As the US Embassy maintains its ties with Fulbright alumni through alumni association chapters and affiliated NGOs, these networks create opportunities for governmental activities that drive alumni into leadership roles (Campbell & Baxter, 2019). This trend is reinstated in Scott-Smith's (2020) study where participants shared that "many respondents noted the number of high-ranking officials, cabinet members and ambassadors in their countries who were former Fulbright grantees" (p. 222). In Pakistan, for example, Fulbright programs maintain ties with alumni by holding Fulbright alumni conferences where former participants can continue to engage in specific areas of research internationally (Staton & Jalil, 2017). In addition, the program initiated small grants to Pakistani Fulbright alumni in the late 2010s to start and continue projects overseas. Similarly, the alumni network in Georgia led to partnerships and activities with non-governmental organizations for human rights activities. This is the case of the Georgian Association of Social Workers (GASW), where alumni receive grants to partner with government ministries for policy changes in the professional conditions of social workers and the creation of new professions in Georgia. As one participant shared, this practice provided memberships to a variety of professionals such as lawyers, psychologists, nurses, and educators as a "platform for discussion to enhance the field of social work in Georgia" (Campbell & Baxter, 2019, p. 7). These affiliations may eventually give alumni access to positions in NGOs and other international organizations.

Lastly, we tend to see a loss of national capital among Fulbright alumni. This perspective of alumni's experiences comes from the fact that distance from a local community detaches the student from this community over time. Therefore, being abroad is often associated with weaker ties with friends, families, and professional networks back home. In Bauder (2020)'s study, a participant from India studying in the US shared having more connections in the US than in his hometown. A Chinese Fulbright also shared a similar experience by stating that "Fulbright scholars enjoy prestige and respect in the United States, but they receive little attention in China, let alone influence on others" (Roberts, 2016, p. 192). While these findings share different alumni's experiences, they each reflect the concept of social capital, which will be discussed in the next section.

Discussion

As the role of educational exchange is to deepen knowledge about foreign cultures and strengthen international relationships (Deardorff, 2017), the Fulbright scholarship has provided students with network opportunities that continue to impact their journey back home. One of the main trends is that Fulbright alumni tend to have a broader network with their international connections upon their return. With transnational collaborations and international ties, Fulbright alumni may have better opportunities at the academic and professional levels. These connections allow alumni to easily engage in academic activities such as research projects and transnational co-authorships, and be empowered for social advocacy changes. In this sense, having links with international organizations and peers provides more opportunities for career advancement and community engagement. Bhandari and Yasunobu (2009) defines this form of social capital as "information channels and flow of knowledge" where actors engaged in relationships and networking benefit from social good attributed to their group membership (p.

488). De Solla Price and colleagues (1966) emphasize this point by mentioning the term "invisible college", which consists of research group networks and communities that collaborate and can easily control access to resources and information. We can also see these groups of membership during the Fulbright recruitment process where links with a group of friends and supervisors involved in the program tend to be the main way to secure a spot and a scholarship for studying abroad (Meeks & Parenti, 2021). In other words, these social ties "exert influence on the agent [recruiters or supervisors of the organizations] who play a critical role in decision [hiring or recruiting] involving the actor" (Lin, 2001, p. 20). Then, having a network of social interests is becoming key to benefit from opportunities that only the social circle has access to. Likewise, social capital fosters a sense of reciprocity that seeks social productivity through civic engagement, voluntary works, and social connections (Bhandari & Yasunobu, 2009).

Another trend stemming from my literature review is that the Fulbright program gives access to higher social status and prestige in their home countries. With the credentials earned from host universities, Fulbright alumni tend to have more privileges due to their connections with universities considered prestigious back home. Partnerships with international universities are then becoming beneficial in the sense that alumni have strong ties with distinguished scholars and communities abroad, and then more opportunities for collaborative work. Lin (2001) suggests that the value of contacts in terms of their prestige, status, or credentials has a key impact on the access to highest-status occupation that the student can benefit from. Bao and colleagues (2023) also support this point by stating that "higher-quality interpersonal communication usually provides students with more experiences of participation in organizations, internships, and part-time work" (p. 17).

In addition, these networks are also an opportunity for alumni to maintain and/or upgrade their social status (Bamberger, 2020). Over the years, Fulbright program has been associated with high-income participants and brilliant students recruited from social ties and supervisor recommendations (Alkarzon, 2015). These profiles often present the Fulbright scholarship as a private program only available to wealthy and bright students. However, we start to see a rise of low-income students in the program through new branches of networks that enable them to improve their living conditions (Meeks & Parenti, 2021). These networks were mostly built through social media as they played a critical role in enabling students from low-economic families to access exchange programs and application process info. Bourdieu (1986) justifies this new network by referring to social capital as "a person's potential to activate and effectively mobilize a network of social connections based on mutual recognition and maintained by symbolic and material exchanges" (p. 11). These networks show how structural and institutional ties play a key role in social ranking and community development.

Moreover, the Fulbright program is an opportunity for students to accumulate social capital. During their journey abroad, Fulbright participants build relationships with friends, advisors, and professors from different backgrounds that make them more aware of cultural differences. Eventually, they are more willing to connect with internationals upon their return home (Stuth, 2014). According to Bamberger (2020), these transnational links enable people from diverse communities to share a wide range of cultural values, knowledge, and resources, that strengthen international ties and partnerships.

However, educational exchange may lead to a loss of national capital among Fulbright alumni. By building strong relationships abroad, Fulbright participants reported weaker ties back home with fewer local networks. Bauder (2020) states that absence in one location diminishes the

opportunity to maintain ties and networks in this place. Ultimately, this disconnect tends to make the reentry process challenging with a reverse culture shock (Gaw, 2000) and potential rivalry with local peers, especially in the job market (Dudden & Dynes, 1987). Subsequently, in the case of educational research, the US builds collaboration with international students from different disciplines to contribute to its development.

Overall, it is clear from the review of the literature that social capital influences students' experiences through networks, reciprocity, and ties that give them access to opportunities that only membership in these groups can provide. Although we analyzed these trends at the national level, they each have broader implications that inform the role of educational exchange in international development today.

Implications

These findings have some implications both at the national and global levels. At the national level, the use of networks leads to a ripple effect where only Fulbright alumni benefit from social opportunities. With better access to information, resources, and reference contacts, this group of alumni tends to encourage fellow friends and relatives from similar social rankings to apply to the Fulbright program. In his study on Chinese Fulbright, Fu and Zhao (2017) mention that "most alumni reported having become a source of information among their colleagues intending to apply for a Fulbright grant" (p. 13). In a different study on West African students, a participant emphasizes this point by sharing that "I ran into my friend, a Fulbrighter alumnus who shared his Fulbright experiences, so I began to check it out. Even though I've heard of this program before, my friend's recommendation is the primary trigger for this journey" (You, 2024, p. 11). In addition, this network has also been an opportunity for alumni to share their knowledge and experiences about the US, break the stereotypes, and contribute to international relationships and peacebuilding. As one participant shared "Many Chinese have stereotypes and misconceptions about American culture and society, and American values. I feel obliged to pass on my first-hand knowledge" (Fu & Zhao, 2017, p. 12). At the same time, Fulbright alumni tend to be encouraged by their fellow international alumni to apply to related educational exchange programs such as the Global Undergraduate Exchange Program (UGRAD) and Humphrey for further international experiences. In her study on international mobility, Paige and colleagues (2009) support this point by stating that "study abroad experiences can profoundly influence individuals' pursuit of further graduate studies, career paths, and global engagement" (P. 14). Ryan (2011) also argues that "The migrant social network has been theorized as social capital in migration studies and essential to facilitating migrants' moving, resettling, and community formation processes" (p. 9). Unfortunately, this ripple effect is leading to an increased divide between locals and Fulbright alumni, as most of the social advantages in the home country are associated with international mobility experiences.

In addition, seeking higher education in the US can lead to Western assimilation in developing countries. After being exposed to Western innovative approaches and freedom for critical thinking, most alumni tend to promote these teaching styles and ideologies upon their return. This is the case of Chinese Fulbright alumni who shared that they have become "committed to course design, curriculum development, and educational reform at their home institutions" (Roberts, 2016, p. 191). Unfortunately, some alumni faced challenges in implementing these teaching practices due to conflicts with local values and existing teaching methods. This spread of US ideology reveals the impact of neoliberalism in education exchange as Western countries tend to maintain their power in the global economy through cultural values. Dobson (2002)

illustrates this influence by stating that "the USA may be in danger of another bout of the 'arrogance of power' as it unilaterally makes its way in the world, sometimes under the cloak of multilateralism, to spread democracy and the free market" (p. 593).

At the global level, the US tends to take advantage of knowledge sharing from a diverse group of international scholars. One example is the rise of foreign labor for research projects in most US universities to incorporate innovative perspectives in their educational reforms (Kahn & MacGarvie, 2011). This educational exchange also allows the US to build connections with talented workforce across countries. While building relationships with Fulbright participants abroad, the US maintains these ties through alumni associations and collaborative networks. Some examples are the U.S. Government Exchange Program Alumni Association of Georgia (EPAG) in Georgia and the Moldovan Alumni Network (Campbell & Baxter, 2019) in Moldova where the US further collaborates with alumni. Scott-Smith (2020) argues that Fulbright programs also spread US public diplomacy through political engagement while "using exchanges to acquaint professionals with their policy-making counterparts in order to smoothen negotiating processes" (p. 8). Such collaboration with Fulbright alumni shows the importance of educational diplomacy for policy reforms, political agreements, and government support, especially in the education sector. These networks also give Fulbright alumni the opportunity to stay in touch with people abroad even after their return home. In this sense, they demonstrate Fulbright's commitment to promoting relationship-building and mutual understanding among nations.

Lastly, the loss of national capital can lead Fulbright participants to return or remain in the host country as they have stronger ties abroad. Participants might eventually extend their experiences abroad through related education opportunities in the US, bringing the issue of brain drain in the home country. As Shen and colleagues (2022) state, "Many international students choose to stay in the host countries upon graduation, rather than returning to their home countries" (p. 1331). These student movements imply the effect of Western influence in the development field and reveal the embedded nature of capitalism in the education system. Kumar and Hill (2012) illustrate it by sharing that education has become mostly "driven by the need and desire of capital for capital accumulation" (p. 116).

Conclusion

The purpose of this study is to better understand the impact of the Fulbright program on student participants originating from developing countries and seeking higher education in the Global North. To study this impact, a literature review was conducted to reach a comprehensive and more nuanced understanding of these students' experiences upon their return home. Through the lens of social capital theory, these experiences are analyzed based on the networks and relationships built among Fulbright alumni, which foster mutual benefits and collective actions in this social group. The significance of this study is that it helps analyze the role of educational exchange programs in the developmental industry and its increasing trend in developing countries over the years. After review, findings suggest that the network built abroad gives alumni access to more professional and academic opportunities, cultural awareness, and more willingness to advocate for socioeconomic changes back home. At the same time, Fulbright alumni tend to lose national ties over time due to their weaker connections in their home country. The social capital theory justifies these experiences by arguing that networks are rooted in memberships and relationships that foster mutual benefits among individuals in this social group. Eventually, Fulbright alumni are more prone to encourage friends and families with similar high social ranking to engage in the program, leaving low-income communities

without the benefits of educational exchange. At the global level, this program allows the US to expand its diplomatic relations and maintain its global power with the spread of its ideology and cultural values in developing countries.

While these trends seem beneficial for both Fulbright alumni and the US government, they raise questions about Western hegemony and the impact of modernity that suggests assimilation of developing countries to the Global North. Are educational exchange programs still fulfilling their roles of cultural exchange and relationship building, or are they becoming a way of neocolonialism where Western countries tend to exploit talented workforce in the Global South for their benefits and power? Like Easterly (2007) mentions "Development ideology is sparking a dangerous counterreaction. The 'one correct answer' came to mean 'free markets,' and, for the poor world, it was defined as doing whatever the IMF and the World Bank tell you to do" (p. 31). Thus, some pressing questions remain, and should be explored in future studies: To what extent are the relationships built among Fulbright alumni contributing to the development of the home country and the promotion of local values? What are the implications of the US Fulbright diplomacy in educational development initiatives in the sponsored countries? What is the impact of educational diplomacy on the sovereignty of the receiving country? These questions will further help to explore the role of education exchange programs in the development field.

References

Alkarzon, A. (2015). Recruitment and the decision-making process of international students: A case study of international students' selection of a host country and academic institution. *Huskie commons*.

Bamberger, A. (2020). Accumulating cosmopolitan and ethnic identity capital through international student mobility. *Studies in Higher Education*, *45*(7), 1367-1379.

Bao, C., Li, Y., & Zhao, X. (2023). The Influence of Social Capital and Intergenerational Mobility on University Students' Sustainable Development in China. *Sustainability*, *15*(7), 6118.

Bauder, H. (2020). International mobility and social capital in the academic field. *Minerva*, *58*(3), 367-387.

Bhandari, H., & Yasunobu, K. (2009). What is social capital? A comprehensive review of the concept. *Asian Journal of Social Science*, *37*(3), 480-510.

Bourdieu, P. (1986). "The Forms of Capital" in Richardson, J. G. (ed.) Handbook of theory and research for the sociology of education. *New York: Greenwood Press*, pp. 241–258.

Campbell, A. C., & Baxter, A. R. (2019). Exploring the attributes and practices of alumni associations that advance social change. *International Journal of Educational Development*, *66*, 164-172.

De Solla Price, Derek J., & Beaver, D. (1966). Collaboration in an invisible college. *American Psychologist, 21*(11): 1011–1018.

Deardorff, D. K. (2017). The big picture: Reflections on the role of international educational exchange in peace and understanding. *International Education Exchanges and Intercultural Understanding: Promoting Peace and Global Relations*, 11-20.

Dimaranan, B., Hertel, T., & Keeney, R. (2004). OECD domestic support and developing countries. In *The WTO, Developing Countries and the Doha Development Agenda: Prospects and Challenges for Trade-led Growth* (pp. 63-91). London: Palgrave Macmillan UK.

Dobson, A. P. (2002). The dangers of US interventionism. *Review of International Studies*, *28*(3), 577-597.

Dudden, A. P., & Dynes, R. R. (Eds.). (1987). *The Fulbright experience, 1946-1986: Encounters and transformations*. Transaction Publishers.

Easterly, W. (2007). The ideology of development. *Foreign Policy*, *161*, 30-35.

Fu, M., & Zhao, X. (2017). Utilizing the effects of the Fulbright Program in contemporary China: Motivational elements in Chinese scholars' post-Fulbright life.

Gaw, K. F. (2000). Reverse culture shock in students returning from overseas. *International journal of intercultural relations*, *24*(1), 83-104.

Guiso, L., Sapienza, P., & Zingales, L. (2004). "The Role of Social Capital in Financial Development". CRSP Working Paper No. 511. *Chicago: University of Chicago*.

Jonbekova, D. (2024). Government scholarships for international higher education: pathways for social change in Kazakhstan. *Higher Education*, *87*(3), 761-777.

Kahn, S., & MacGarvie, M. (2011). The effects of the foreign Fulbright program on knowledge creation in science and engineering. In *The rate and direction of inventive activity revisited* (pp. 161-197). University of Chicago Press.

Kumar, R., & Hill, D. (2012). Introduction: Neoliberal capitalism and education. In *Global neoliberalism and education and its consequences* (pp. 21-31). Routledge.

Leguey-Feilleux, J. R. (2009). The dynamics of diplomacy (pp. 63-64). *Boulder, CO: Lynne Rienner Publishers.*

Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: advancing the methodology. Implementation science, *5*, 1-9.

Lin, N. (2001). Social Capital: A Theory of Social Structure and Action. *Cambridge: Cambridge University Press.*

Maluki, P., & Waithaka, J. W. (2016). International Education Exchanges as A Public Diplomacy Instrument.

Meeks, M., & Parenti, J. V. (2021). Understanding Outreach and Engagement among Underrepresented Fulbright Association Alumni. *Vanderbilt library*.

Paige, R. M., Fry, G. W., Stallman, E. M., Josić, J., & Jon, J. E. (2009). Study abroad for global engagement: The long-term impact of mobility experiences. *Intercultural Education*, *20*(sup1), S29-S44.

Roberts, P. (Ed.). (2016). The power of culture: Encounters between China and the United States. *Cambridge Scholars Publishing*.

Ryan, L. (2011). Migrants' social networks and weak ties: Accessing resources and constructing relationships post-migration. The Sociological Review, *59*(4), 707–724.

Scott-Smith, G. (2020). Exchange programs and public diplomacy. In *Routledge handbook of public diplomacy* (pp. 38-49). Routledge.

Shen, W., Xu, X., & Wang, X. (2022). Reconceptualising international academic mobility in the global knowledge system: towards a new research agenda. *Higher Education*, *84*(6), 1317-1342.

Staton, M., & Jalil, R. (2017). International graduates: Pakistani Fulbright alumni on their return to Pakistan. *IJAEDU-International E-Journal of Advances in Education*, *3*(9), 611-619.

Stuth, A. E. (2014). "Transforming cannons into cultural currency": the Fulbright Foreign Student Program and the transmission of the American creed abroad. *Doctoral dissertation, University of Oxford*.

Torraco, R. J. (2005). Writing integrative literature reviews: Guidelines and examples. *Human resource development review*, *4*(3), 356-367.

You, S. (2024). Cosmopolitan pathways from the Global South: How non-middle-class students become desirable Fulbright applicants. *Global.*

Contact email: akouao@hawaii.edu

Possession, Performance and the Passing of Time: The Global and Historical Contexts for Ritual Theatre in South West India

Shankara Angadi, University of Warwick, United Kingdom

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
There is a range of religious performance traditions in Kerala and Karnataka which still occupy an important place in the cultural and spiritual life of communities. They include būta, or spirit worship, and genres described as religious drama, such as Yakshagana and Kathakali. The last of these has been separated out as a globally significant dance-drama style, to be studied by students of performance across the world. The interest of "outsiders" affects the way the traditions are treated in India and can lead to a notional separation between art-form and primitive superstition. Without greater awareness and consideration, the living culture of the region risks being undermined and extinguished.

Keywords: Kathakali, Spirit Worship, Transculturalism

iafor
The International Academic Forum
www.iafor.org

Introduction

Figure 1: Entrance to Angadi House in Northern Karnataka

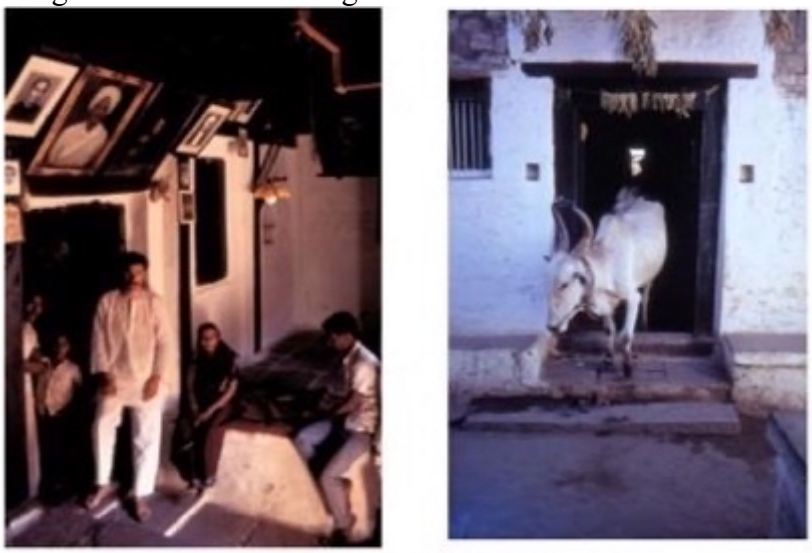


Photo: Author

When recently I began investigating *būta* worship in connection with my research into the history of Western Karnataka, I was suddenly reminded of a moment 50 years earlier. It was during my first visit to my Father's ancestral home in Karnataka. Apart from enjoying the fascination of a dwelling built around the animals - a central core for the draught bullocks, with bells on painted horns, and grey leather skin stretched like tent fabric across their bony frames – there was a labyrinth of dark passages and rooms to explore, some with thick bars of sunlight streaming through wreathes of smoke. In one of these, a tiny space like an open cupboard, I found a stone shelf with half-a-dozen stylised figures, squat statues surrounded by metal ornaments and plaques. After a moment or two, I was bustled out by one of the family, who explained rather vaguely that they were household Gods. At the time I assumed that it must be some prayer room, a private chamber of reverence to supplement the display of forebears, both the living and the dead, in photographs and drawings over the main entrance to the house.

Figure 2: *Būta* Figures From Private Shrines
(These are much finer than the ones in our house.)

Photo: Padmanabhan Sridar who gives permission for use at https://bronzesofindia.com

I now realise that I discovered a *būta* worship room. *Būta,* sometimes translated as "ghost", is used for a very diverse class of spirits that figure in the ritual life of Karnataka. It is hard to describe it simply without reducing it to caricature, but it is best imagined as a small section of the spectrum of Hinduism, which recognises not only the main Gods but also several substrata of lesser deities and spirits, including animistic entities and the ghosts of people who died under inauspicious circumstances. The religion is very much alive in Western Karnataka, not only among simple villagers but also in the great houses of those Kannada estate owners equivalent to today's English landed gentry. These Kannadigas, rich and poor, will go to temples with other Hindus but reserve for their home or village life a special reverence for personal gods, and celebrate at local festivals the complicated histories of human and animal deities associated with Southern and Western parts of Karnataka.

Figure 3: *Būta* Celebrations in 2020 at the Ullalthi Temple at Kelinja in Dakshina Kannada

Photo still from Mangalore Heritage video (mangaloreheritage.com) under fair use policy.

My family came from North Karnataka, not far from Hubli, quite a surprising place for *būta* worship to be found. For this reason, when in the Summer of 2024 I attended a cousin's wedding in England's Home Counties, I was keen to question family members, some of whom I had first met in the village many years ago. What I received from them was a flat denial. *Būta* worship had never been practised in the house. What an absurd idea! Especially as the family were *lingayats,* a monotheistic group of Hindus that generally downplay worship of idols.

Figure 4: Map of Karnataka, Showing (Ringed) Location of Angadi House and the Tulunadu Region

Of course I had not been mistaken, but the family's blanket denial made me aware how far some educated South Indians are embarrassed by any association with the primitive and superstitious. It is parallel to the exasperation I have heard from other relatives, now medical professionals, describing how so many of their Kannada patients prefer propitiating spirits to taking prescription medicines. *Būta* worship might have been part of the fabric of their lives when they were growing up; but becoming a professional meant crossing a boundary into the world of modern science, all the more so if they have crossed continents as well. Kannadigas in the UK now seem to know about *būta* chiefly from the 2022 Kannada film *Kantara.* This film, although set in the modern world, associates *būta* traditions with the forests and hills of Western Karnataka and those inhabitants (often labelled as "Scheduled" or "Backward" tribes) who keep ancient traditions alive. But today's *būta kola,* public happenings, are organised by wealthy and well-educated townspeople and landowners.

Figure 5: *Būta* in a *Guthu*, (Manor House) Showing Medium in a Trance With Hosts and Guests

Photo still from Mangalore Heritage video (mangaloreheritage.com) under fair use policy.

Although the mediums who become possessed by *būta* at these performances belong to castes regarded as "inferior" by most onlookers, they are consulted as authorities on a range of issues from personal health and family affairs to politics and worker relations. The divinity that they have taken on has made them powerful: one anthropologist[1] quotes an observer as saying, "You don't joke with these fellows." *Būta* can be worshipped at household altars, like the one in my Father's house, at local shrines or at gatherings at *guthus,* the grand manorial houses; they can range from private devotions to large scale annual festivals. These last are now promoted as tourist spectacles. There is no embarrassment, it seems, about community tradition, only personal devotion.

However, no such inhibition applies to Kathakali, the religious-theatrical genre found in Kerala some 200 mile to the South. To the outsider, Kathakali shares many characteristics with *būta* worship. Both use stylised drama to connect audiences with the religio-mythical past. Both involve actors infused with the divinity of the Gods and demons. The costumes have close similarities, usually featuring giant circular headdresses made from wood, and they use similarly elaborate make-up and are accompanied by the same deafening music of drums and

[1] Marine Carrin, "L'expérience du surnaturel au Sud-Kanara", *Archives de sciences sociales des religions*, 145, 2009, Miho Ishii, *Modernity and Spirit Worship in India*, Abingdon: Routledge 2020. Masataka Suzuki (2008). "Bhūta and Daiva: Changing Cosmology of Rituals and Narratives in Karnataka" in SENRI *Ethnological Studies* 71, 9. https://doi.org/10.15021/00002613

gongs. Although the various cultural traditions may have different names, insiders and outsiders immediately recognise their common elements.

But Kathakali is now singled out, recognised globally as a dance-drama style. The New York Times critic Clive Barnes described it as "one of the real epic theaters of the world"[2] on a par with great theatre past and present including that of Ancient Greece and, in more recent times, several dramatic traditions in the Far East.[3] There are coincidental parallels between the histories of Kathakali and Japanese Kabuki, in that both forms crystallised into distinctive theatrical styles around the 17th century, when Kabuki began to play to the sophisticated urban audiences of Edo during the Tokugawa Shogunate, and Kathakali was established as the speciality style of the court of the Rajas of Kottarakara. Although a century ago they were scarcely known outside Asia, now these drama-types, together with certain martial art styles, have assumed prominence in Western theatre studies, including in the training of actor-practitioners. In Europe and America, drama schools include them in their curriculum partly to counteract "the homogenizing tendency of national paradigms."[4] The rigorous training which in India serves to inculcate the stylised posture and movement of the actor-dancer-warrior can also help "Western" performers to develop the techniques of concentration and meditation required for learning the act of performing "from 'inside'."[5] Performers now are more likely to think in terms of "psychophysical involvement" in a performance stimulated by a number of sources of which a conventional playscript may be one. Among the most familiar of these techniques is that associated with the Russian teacher Stanislavski, which has influenced many modern stage and film actors and which is known colloquially as "method acting". Some actors and directors have sought inspiration in "cultural habitus,"[6] not just the performance art of other civilisations, but also the learned body language and thought patterns which communities have developed in both their everyday and ritual lives. Apprentice performers seek to achieve "a kind of liminality,"[7] becoming a new self, with ritualised behaviours that can be "read" by familiar audiences.[8]

---

[2] According to Graeme Vanderstoel (2013). Presentation at Indian Arts and International Venues round table at UC Santa Cruz, https://www.facebook.com/groups/kathakali/permalink/663186413702644/?_rd

[3] Organisers of European Festivals tend to make a mental distinction between folklore and "serious theatre". Kathakali, which had a two week run at the World Theatre Season at the Aldwych Theatre in 1972, is certainly assumed to be in the latter category.

[4] Janelle Reinelt and Brian Singleton, "Series Preface" to *Studies in International Performance* series, initiated in 2004 on behalf of the International Federation for Theatre Research, Basingstoke, Palgrave Macmillan.

[5] "In contrast to representational or mimetic theories of acting that are constructed from the position of the outside observer to the process/phenomenon of acting, my concern is with articulating away of understanding acting from the perspective of the actor as enactor/doer from 'inside' the act of performing." Phillp Zarrilli, "Introduction" in Zarelli, Daboo and Loukes (2013). *Acting, psychophysical, phenomenon and process: intercultural and interdisciplinary perspectives,* Basingstoke: Palgrave Macmillan, 18.

[6] "Habitus" is a useful term borrowed from sociologists, associated originally with Pierre Bourdieu to describe how individuals self-regulate their own behaviour to fit social expectations. Bourdieu P. (1977). trans. Nice R, *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.

[7] Turner, V. (1969) *The ritual process: Structure and anti-structure*. Chicago, Aldine, vii. The term "liminality" more usually applies to the "coming of age" ceremonies when a child is transformed in social terms into an adult. But according to Turner, most societies have "liminal areas of time and space—rituals, carnivals, dramas, and latterly films—[which] are open to the play of thought, feelings and will; in them are generated new models, often fantastic, some of which may have sufficient power and plausibility to replace eventually the force-backed political and jura l models that control the centers of a society's ongoing life." While the approach might be an interesting take on *būta kola,* Turner connects his study with "preliterate societies" such as his area of study in the Zambia and the Democratic Republic of Congo (preface page v). Modern Karnataka cannot by any means be described as "preliterate."

[8] Leo Rafolt, (2015). "Transcultural and Transcorporal Neighbours: Japanese Performance Utopias in Jerzy Grotowski, Eugenio Barba and Phillip B. Zarrilli", in *Colloquia Humanistica,* 4, 96-7.

Figure 6: The Pandavas Gamble With the Kauravas; a Scene From a Kathakali Performance

Photo Bhoomi on Malayalam Wikipedia (Creative Commons License)

Kathakali fully fits with this notion of acquired performative behaviour and it has led to its being given a place at the high table of trans-cultural eminence. However, from the Indian perspective, this lumping together of great theatres from around the world can feel like a form of "orientalism": a tableau of weird and wonderful art forms that we (Westerners) would all benefit from greater exposure to. Peter Brook, the British director was inspired by Kathakali among other things in his epic stage construction of *The Mahabharata* in 1985. But Brook was interested in "primitivism" globally and attracted some criticism in his choice of an African actor to play the part of Bhima who at the climax of the play devours his rival Dushasanna. It seemed to be alluding, so it was claimed, to popular stereotypes of natives and cannibals.[9]

Figure 7: Bhima's Frenzy From Peter Brook's Production of Mahabharata, 1983

Photo still from video under fair use policy

While touring with a Kerala-state-sponsored Kathakali troupe across Europe in the 1970s, we in the company became aware of a typical audience response in those places where we were greeted with greatest acclaim, in London, for example, some venues in France and Italy, in Northern (but not Southern) Spain, and above all in Vienna. The initial reaction was shock,

[9] David Moody (1995). "Peter Brook's Heart of Light: 'Primitivism' and Intercultural Theatre" in *New Theatre Quarterly*, 11(41), 33-39.

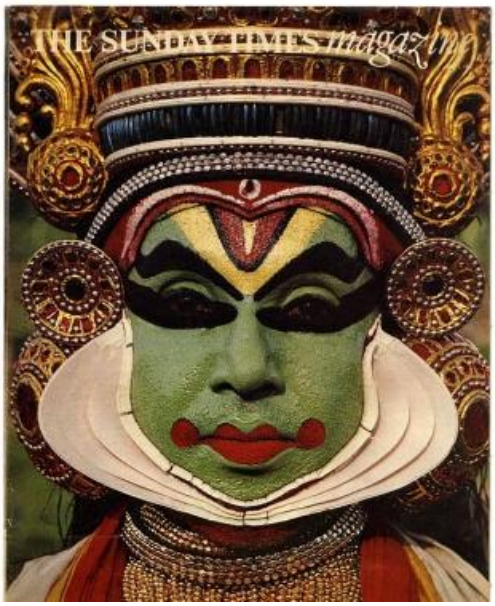
alarm almost. But for those that were able to endure the overpowering sights and sounds, it quickly turned into mesmerised attention. The admiration was nearly all wonder rather than empathy and our shows were received as a transcendental experience, a theatre of alienation.

Figure 8: The Death of Kichika (Kathakali)

Photo: Prathyush Thomas (Creative Commons License)

The juxtaposition of comedy and visceral horror had a deeply unsettling impact on many, especially those who had come expecting to enjoy the decorative charm of Indian dance. In this scene, known as the death of Kichaka, the same superhuman character Bhima, here disguised as a servant, has set a trap to assassinate the lord of the house who has come to seduce his wife. As the life is squeezed out of him, the victim emits a series of astonished squeaks. A moment later blood gushes from his mouth and he dies. Western audiences recognised this as a familiar comic/horror genre.

Figure 9: "The Stars of India" Photographed by David Montgomery for the Sunday Times Colour Supplement June 7th 1970 on Performances at Sadlers Wells Theatre London



Copyright David Montgomery. The author has been given special permission to reproduce the photograph for promoting Kathakali.

The company enjoyed the adulation and as the tour went on they gradually adapted. The intricate mimed "dialogue" on stage became both more articulated and abbreviated. They could see the parts of the performance that caused the eyes of the audience to glaze over and also those which made them widen in amazement. They extended the splendid sequences, like the opening of *The Mahabharata* and the wedding procession that concludes *The Ramayana* and more lyrical dance sequences such as the interpretation of *The Bhagavad Gita*. And with the almost daily performances over several months, the performers gradually lost their inner role as the embodiment of Gods and heroes. They learned to become jobbing actors, famous actors at that. On returning to India they were treated as film stars, for a time at least.

This development is neither regrettable nor avoidable, but it tends to lift Kathakali out of the cultural context in which it developed. An early 20th century study by K. Bharatha Iyer[10] demonstrates that Kathakali was just one of many performance traditions in South West India: he enumerates more than a dozen forms associated with various ethnic and caste groups, some of which he describes as Tantric cults.[11] One that is prominent today in Western Karnataka today, known as Yakshagana, performed at temple festivals in the coastal region, is sometimes promoted as a Kannada variety of Kathakali. Iyer also notes the part played by the *Kathakali bhranthan* "Kathakali-mad," in sustaining its reputation[12]. They are the elite group of enthusiasts, expert in *mudras,* the gesture language of the mimed narrative, who argue over the performances of rival Kathakali stars rather as Italian *cognoscenti* compare the merits of opera divas. The history of art and music everywhere acknowledges the positive and negative influence of patrons. With Kathakali they became its protectors; in the case of our touring troupe, it had become almost the court drama of a Senior Public servant.

Būta, on the other hand, although much more socially inclusive, these days provides transcultural material only for anthropologists. Within India itself, while Kathakali is an art form, *būta* is just a survival, a curiosity. This surely needs to be put right if the performance art of South West India is to be better understood.

India is well able to look after its own cultural heritage. But outsiders seeking to "learn from India" can also have an impact: India's self-regard is often highly reactive to global opinion. We have already remarked on the uneasy coexistence of notions of modernity and cultural heritage. Kannadigas are now also having to cope with political pressures, with questions of identity being bound up with issues of caste, regional independence and religious belief. Cultural "correctness" is being used to divide society in ways quite differently from centuries ago, when the performances and the ceremonies united communities and attracted worshippers from across the religious spectrum. That universality declined under the influence of colonial modernism. Bharatha Iyer notes the disdain and neglect that had encompassed much of the indigenous performance art of Southern India in the early 20th century. The revival came partly from the interest of the educated elite in India, of which Iyer was himself one, and partly from Indian performers who were promoted in the West, often embodying a fusion of styles to make Indian dancing more accessible and acceptable to the particular "castes" of Western society who were to be its champions. That was until the 1960s and 70s when perceptions of Indian culture changed radically, though usually without any greater depth of understanding. Now Indian civilisation represented something wonderfully "other" was the great attraction. Moreover, the growing export of popular Indian culture was accompanied by the importation

[10] K Bharatha Iyer (1955). *Kathakali: the Sacred Dance-Drama of Kerala,* London, Luzac & Company, Author's Preface, x.
[11] Ibid, 13-22
[12] Ibid, 31

and assimilation of Western influences to such an extent that to a certain extent the two became aspects of the each other. That left the less easily absorbed parts of South Indian culture outside the mainstream, in danger of being forgotten, or fossilised as museum pieces. As with quantum physics, the mere existence of the outside observer affects the outcome.

Conclusion: Proposal for New Exhibition in Europe Juxtaposing Būta and Kathakali

It is important to allow people outside India to gain a direct impression of the performance art and ritual of Kerala and Karnataka. We want to organise an exhibition that would focus on Kathakali and *būta* performances, putting audiences at the centre of the spectacle without overloading them with explanations, except for simultaneous translation of the spoken words. It would be as much experiential as educational, attracting a range of people, with personal and academic interests in history, religion, performance, aural and visual art. I would warmly welcome the help and advice from anyone interested in furthering this project.

References

Bharatha Iyer, K. (1955). *Kathakali: the Sacred Dance-Drama of Kerala*, London, Luzac & Company.

Bourdieu, P. (1977). trans. Nice R, *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.

Carrin, M. (2009). “L'expérience du surnaturel au Sud-Kanara” in *Archives de sciences sociales des religions,* 145.

Ishii, M. (2020). *Modernity and Spirit Worship in India*, Abingdon: Routledge.

Moody, D. (1995). “Peter Brook's Heart of Light: 'Primitivism' and Intercultural Theatre” in *New Theatre Quarterly*, *11*(41), 33-39. https://doi.org/10.1017/S0266464X0000885X

Rafolt, L. (2015). “Transcultural and Transcorporal Neighbours: Japanese Performance Utopias in Jerzy Grotowski, Eugenio Barba and Phillip B. Zarrilli” in *Colloquia Humanistica*, *4*, 96-7, https://doi.org/10.11649/ch.2015.006

Suzuki, M. (2008). “Bhūta and Daiva: Changing Cosmology of Rituals and Narratives in Karnataka” in *SENRI Ethnological Studies, 71*, 9. https://doi.org/10.15021/00002613

Turner, V. (1974). *The ritual process: Structure and anti-structure*. London: Routledge & Kegan Paul.

Zarrilli, P., Daboo, J., & Loukes, R. (2013). *Acting, psychophysical, phenomenon and process: intercultural and interdisciplinary perspectives*, Basingstoke: Palgrave Macmillan.

Contact email: shankara.angadi@warwick.ac.uk

Psychosocial Stressors Latinas Face in Education

Orsolya Varkonyi, Molloy University, United States

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Over the past twenty years, researchers have explored how collective identities influence various aspects of psychological functioning, including self-esteem, psychosocial development (Pacheco, 2018), self-actualization, and the use of psychological defenses (Borjian, 2018). Despite these efforts, a significant crater remains in understanding how racial-cultural and gender identities affect psychological functioning (Barker, 2015) and experiences of sexism, especially among women of color (Jakub et al., 2018). This study investigates the mediating effects of racial-cultural and gender identities on the relationship between sexism and psychological distress. The research involved 196 Latina college students who completed several measures, including the Schedule of Sexist Events, the Visible Racial Identity Attitude Scale for Hispanics, the Womanist Identity Attitude Scale, the Brief Symptom Inventory, and a demographic questionnaire. Findings yield to the revelation that gender and racial-cultural identities mediated the relation between sexism and psychological distress among Latina university learners. Integration of gender and racial-cultural identities into therapeutic interventions are of paramount importance for ensuring culturally competent counseling practices.

Keywords: Culturally Competent Counseling, Sexism, Psychological Distress, Latinas

iafor
The International Academic Forum
www.iafor.org

Introduction

Latina college learners are sparsely represented in all the literature on college learner mental health (Barker, 2015). Latina college learners experience high levels of social exclusion, psychosocial stressors, and microaggressions associated (Barker, 2015) with their immigration status (Kumi-Yeboah & Smith, 2016), and these encounters ensue at the beginning of their academic journey and continue throughout their time in higher educational settings (Nguyen & Benet-Martínez, 2013). In the past three decades, several studies have examined the relationships of collective identities (e.g., race, gender, culture) with various aspects of psychological functioning (Vedder et al., 2006), such as self-esteem, psychosocial development (Barker, 2015), positive social relations (Razum & Spallek, 2014), self-actualization, and the use of psychological defenses. Significant relations were indicated for people of color, White/Euro-Americans, and all genders (Jakub et al., 2018). These findings provide solid support regarding the importance of collective identities to the overall psychological functioning of many people. Conceptualizations around identity development have begun incorporating various dimensions that sometimes serve as beneficial mediators between critical events and their ensuing psychological impact. However, few studies have examined the impact that racial-cultural identity and gender identity might have on psychological functioning and the experience of sexism, particularly for women of color (Razum & Spallek, 2014). Indeed, although research indicates the negative psychological impact that sexism can have on women, little research exists exploring whether collective identities based on culture and gender might affect the relationship between experiences with sexism and psychological distress. I explored the extent to which racial-cultural identity and gender identity mediated the relationship of sexism and psychological distress among Latina college students. I examined the contributions of racial-cultural identity and gender identity to psychological distress. The relationships of sexism to racial-cultural identity and gender identity were also tested in their respective models. I hypothesized that both types of collective identities would mediate the direct effect of sexism on psychological distress.

Method

Participants included 196 self-identified Latinas recruited from a Hispanic-serving university in the Northwestern United States. Each participant completed a packet of questionnaires consisting of:

- Schedule of Sexist Events (SSE; Klonoff & Landrine, 1995);
- Womanist Identity Attitude Scale (WIAS; Ossana et al., 1992);
- Visible Racial Identity Attitude Scale for Hispanics (VIAS; Miville & Helms, 1996);
- Brief Symptom Inventory 18 (BSI-18; Derogatis, 2000); and
- Demographic data sheet.

Results

The mean age of participants was 33.27 (SD=6.75). Most participants (85%) were social sciences and education graduate students. In addition, most of the women (85%) worked full-time. Approximately 76% of participants' parents completed up to a high school education. Forty-nine percent of participants grew up in a rural setting, and the remainder of the sample was split evenly between growing up in suburban and urban settings. Approximately 89% of the sample grew up in areas composed of at least 77% ethnic-minority people. The vast majority (97%) of the sample were United States citizens. Half of the sample (51%) identified

themselves as bilingual/multilingual, whereas 47% identified English as their primary language.

Sexism, psychological distress, and statuses for racial-cultural and gender identity were significantly correlated. Because sexism was found to be significantly related to racial-cultural and gender identity statuses and psychological distress, I tested two models involving racial-cultural identity and gender identity as mediators, respectively, in the association between sexism and psychological distress. Racial-cultural and gender identity variables were treated as latent variables, with the VIAS and WIAS subscales as their respective indicators.

Regarding the racial-cultural identity mediation model, fit statistics for the path model demonstrated an adequate fit to the data [X^2 (8)=4.10, p=.85; CFI=1.00; NFI=.99; TLI=1.00; RMSEA=.00]. The path between sexism and psychological distress was significant and positive (β=.40, p<.05), indicating that higher levels of perceived sexism were linked with higher levels of psychological distress for Latina college women. The path between sexism and racial-cultural identity was also significant and positive (β=.16, p<.05), indicating that higher levels of perceived sexism were linked with higher levels of racial-cultural identity statuses. Finally, the path between racial-cultural identity and psychological distress was positive and significant (β=.14, p<.05), indicating that higher levels of distress were linked with racial-cultural identity.

Regarding the gender identity mediation model, fit statistics for the path model demonstrated an adequate fit to the data [X^2 (13)=18.81, p=.13; CFI=.99; NFI=.99; TLI=.99; RMSEA=.05]. The path between sexism and psychological distress was significant and positive (β=.36, p<.05), indicating that higher levels of perceived sexism were linked with higher levels of psychological distress for Latina college women. The path between sexism and gender identity was also significant and positive (β=.31, p<.05), indicating that higher levels of perceived sexism were linked with higher levels of racial-cultural identity statuses. Finally, the path between gender identity and psychological distress was positive and significant (β=.22, p<.05), indicating that higher levels of distress were linked with gender identity.

Conclusion

Results indicated the complex relationships that exist among racial-cultural and gender identity with experiences of sexism and psychological distress for Latina college women. These findings indicate the potential impact that collective experiences (e.g., thoughts and feelings about being Latina or female or both) have on notable events in the lives of Latinas. One such event, experiencing sexism, is a sadly all too common occurrence for many college women of color, including Latinas. Such experiences may lead to distrust of others and lower self-esteem. Results here indicated that both racial-cultural and gender identities may play a role in negotiating such events, particularly if Latinas are experiencing crisis and conflict regarding their collective identities. Counselors and Counselor Educators need to ensure that Latina college students obtain supportive and effective services at a critical juncture in their psychological development. Results from the study indicate that racial-cultural and gender identity is crucial to consider when serving Latinas dealing with painful experiences arising from sexism. I hope the results can be used to develop more culturally competent interventions with Latinas and the systems with which they interact. Counseling professionals must be aware of the importance of Latina college learners ’mental well-being due to the significant increase in college learner populations. Further discovering the needs of Latina college learners is

paramount, as a welcoming and understanding campus climate is essential for Latina learners to succeed in higher education.

References

Barker, G. C. (2015). Choosing the best of both worlds: The acculturation process revisited. *International Journal of Intercultural Relations, 45*, 56–69. https://doi.org/10.1016/j.ijintrel.2015.01.001

Borjian, A. (2018). Academically successful Latino undocumented students in college: Resilience and civic engagement. *Hispanic Journal of Behavioral Sciences*, *40*(1), 22–36. https://doi.org/10.1177/0739986317754299

Derogatis, L. R. (2000). *Brief Symptom Inventory-18 (BSI-18)* [Database record]. APA PsycTests. https://doi.org/10.1037/t07502-000

Jakub, K. E., Turk, M. T., Fapohunda, A., & Zoucha, R. (2018). Cultural beliefs, perceptions, and practices of young adult offspring of African immigrants regarding healthy eating and activity. *Journal of Transcultural Nursing*, *29*(6), 548–554. https://doi.org/10.1177/1043659618761532

Klonoff, E. A., & Landrine, H. (1995). The Schedule of Sexist Events: A measure of lifetime and recent sexist discrimination in women's lives. *Psychology of Women Quarterly, 19*(4), 439–472. https://doi.org/10.1111/j.1471-6402.1995.tb00086.x

Kumi-Yeboah, A., & Smith, P. (2016). Critical multicultural citizenship education among Black immigrant youth: Factors and challenges. *International Journal of Multicultural Education, 18*(1), 158–182. https://doi.org/10.18251/ijme.v18i1.1079

Nguyen, A.-M. T. D., & Benet-Martínez, V. (2013). Biculturalism and adjustment: A meta-analysis. *Journal of Cross-Cultural Psychology, 44*(1), 122–159. https://doi.org/10.1177/0022022111435097

Ossana, S. M., Helms, J. E., & Leonard, M. M. (1992). Do "womanist" identity attitudes influence college women's self-esteem and perceptions of environmental bias? *Journal of Counseling & Development, 70*(3), 402–408. https://doi.org/10.1002/j.1556-6676.1992.tb01624.x

Razum, O., & Spallek, J. (2014). Addressing health-related interventions to immigrants: Migrant-specific or diversity-sensitive? *International Journal of Public Health*, *59*(6), 893–895. https://doi.org/10.1007/s00038-014-0584-4

Vedder, P. H., Hortenczyk, G., Liebkind, K., & Nickmans, G. (2006). Ethno-culturally diverse education settings: Problems, challenges, and solutions. *Educational Research Review, 1,* 157–168. https://doi.org/10.1016/j.edurev.2006.08.007

Leaving No One Behind in Suburban Japan's Internationalization: Language Teaching for Community Integration and Empowerment

Maria Lupas, Sophia University Junior College Division, Japan
Sachie Miyazaki, Sophia University Junior College Division, Japan
Akiko Kano, Sophia University Junior College Division, Japan

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Along with Japan's rapid economic growth in the latter part of the 20th century, came a push to internationalize Japanese society. While cities were privileged places for this, the suburbs also aimed to achieve internationalization, although with different resources and challenges. This paper focuses on two types of "internationalization from within", one which involved supporting and integrating refugees and newcomers into Japanese communities and schools, and another which involved building the foreign language ability of Japanese children in the school system. Both of these occurred in a suburban town outside the Tokyo metropolitan area. Over several decades the relationship between a community college there and the local government has produced multiple sustainable language support programs for both English and Japanese. This paper reports the thirty-year evolution of college service-learning programs and some of the long-term results of service-learning partnerships between the college and the local board of education. It contextualizes how one suburban community welcomed first Indochinese refugees and later newcomers from South America and other Asian countries. It also shows how a college language department partnered with the local board of education to meet various learner needs at the primary and secondary school level. Based on these experiences, the presentation recommends expanding the use of community partnerships in language programs and newcomer support in Japan and suggests some best practices for designing such programs. In our community, such programs have created considerable gains for both college students and the community which should encourage the expansion of such partnerships.

Keywords: Community Engagement, Experiential Learning, Immigration, Service-Learning

iafor
The International Academic Forum
www.iafor.org

Introduction

An underlying principle and universal value of the 2015 UN Sustainable Development Goals is "leaving no one behind," and this could very well be the motto for a unique experience connected to a women's junior college in suburban Japan. This paper will present the community-engaged activities that have taken place at Sophia University Junior College Division (previously known as Sophia Junior College) since the late 1980s, some ways in which these activities changed to leverage strengths and to meet the changing community needs, and some ways community impact could be measured.

Rapid Post-war Growth and the Internationalization From Within in Japan

Post-war Japan achieved a surprising level of growth which propelled it on the world scene. Less than 20 years after the war which ravaged Tokyo, the city won the bid to host the 1964 summer Olympic games. Areas around Tokyo also developed infrastructure to support growth and internationalization as Japan's economy continued to expand. Efforts were made to encourage hiring of those who had international experience or to prepare Japanese people to handle international experiences by creating opportunities for international exchanges within Japan: in companies, universities, and local governments.

Japan also acceded to the Refugee Convention in 1981 in response to the boat people crisis and landing of refugees in Japan at the end of the Vietnam War. A framework was set in place which from 1978 to 2005 helped 11,319 refugees from what was called Indochina (Laos, Cambodia, Vietnam) to settle in Japan.[1]

In this context of Japan's growing internationalization, Sophia School Corporation opened a women's junior college in Hadano City, Kanagawa Prefecture, located a little over an hour by train from the center of Tokyo. The school proposed a two-year program in the English Department and received a large volume of applications from across Japan for the first class of 250 students. The school seemed to be meeting a real need in women's education at the time.

Hadano City itself had a population of less than 150,000 people and counted under 300 foreign residents (mostly from China, Korea, and the USA) when the junior college opened in 1973.

From Tragedy to Community-Building

The junior college surprised many because of the large volume of applicants it received during its first 15 years of existence. The size of the entering class was maintained at 250 students, but for 13 out of the first 15 years, the number of applicants was over 1,000 and in 4 different years the number was close to or over 2,000 applicants. An international faculty supported by two Roman Catholic orders, the Society of Jesus and the Company of Mary Our Lady, who provided several multilingual teaching staff and ran the adjacent dormitory proved highly attractive and effective. Year by year, while trying to deepen ties with the local suburban community, the school implemented innovative teaching and extracurricular programs.

Tragedy struck the Hadano community on February 8, 1987. An Indochinese refugee who had been settled in Hadano killed his wife and three young children. While the loss of life constituted sufficient cause for shock, another shock came the discovery that refugees lived so

[1] Ministry of Justice. https://www.moj.go.jp/isa/content/001393014.pdf

close by. According to Sister Rosa María Cortés Gómez, then Associate Professor at Sophia Junior College, "We had no idea that refugees were living so close to us. None of us knew their difficulties, their struggles to integrate into the culture of an unknown country…"[2] The incident sent ripples through the local government and also through the school community. Forces where pooled, and an NGO, "*Tōnan Ajia no Hitobito to tomoni Ayumukai* [Walking Together with the People of Southeast Asia Association]," hereafter Walking, was started in 1988. Already in 1987, a pilot project coordinated by the sisters of the Company of Mary involved students from the junior college tutoring Japanese in the venue of Hadano Catholic Church.

In 1988 with the support of the school administration and of the Walking NGO, the junior college began the In-home Volunteer Tutoring Program (*Kateikyōshi Borantia*). By that time, the number of Hadano residents from Indochina numbered 92 people, and the total foreign population was 600 residents for a population of 151,184 people.

The In-home Volunteer Tutoring Program paired junior college students with refugee families in Hadano. Seven refugee families welcomed students as tutors in 1988. The junior college campus ministry provided support and organization for the student-tutors. The program grew year by year with more families welcoming more student-tutors into their homes. Between 1988 and 2003 a total of 930 junior college students supported 635 learners.[3] The families who accepted students provided authentic international experiences to the junior college students who in turn provided valuable Japanese language and culture support. The families also became part of the school community to some extent, participating at the school festival and running food stands that were popular with students.

The 1990s saw a change in the foreign residents of Hadano City. Successive revisions to the Japanese immigration law increased the number of foreign residency categories, and third-generation descendants of Japanese nationals (Nikkei) could enter Japan and receive work permits. Nationals from Central and South America increased the foreign resident population of Hadano. By 2001, Hadano counted nearly 3,000 foreign residents, many from Brazil and Peru. The In-home Volunteer Tutoring Program quickly connected to the new residents since many members of the Company of Mary Our Lady already spoke Spanish and could understand Portuguese. They would help the newcomers navigate administrative and other procedures in their new country and connected them to the tutoring program.[4]

Integrating the Community and the Curriculum

By the early 2000s the In-home Volunteer Program had considerable scaled up from its origins in the late 1980s and was given a Good Practice award from the Ministry of Education. Until that time the activity remained separate from the junior college curriculum. The program then received more formalized institutional support from the junior college. In 2007 a plan of cooperation with Hadano City was established, followed by the creation an opening of a "Service-Learning Center" on campus in 2008. In the 2009 academic year, an introduction to service-learning course was started, and several programs in partnership with Hadano City and the Hadano City board of education started operating: Japanese language support in elementary and middle schools (College Friend), Japanese after-school support to members of the community (Community Friend) ,and English lessons for young learners in Hadano City

[2] Jesuit Social Center Tokyo Newsletter No. 89 99/4/15
[3] https://www.jrc.sophia.ac.jp/uploads/2024/11/SL-booklet_web.pdf, page 11
[4] Lupas, M., & Miyazaki, S. (2020). Research Note on SUJCD and Foreign Residents in Hadano, 1987-2007: Preliminary Contextualization. *Sophia University Junior College Division Faculty Journal*, *41*, page 28.

elementary schools (English Friend). The junior college curriculum and timetables were either designed or adapted to support college students participating in service-learning activities while managing their busy school life. The Service-Learning Center itself served as pole for centralizing different projects and requests.

Expanding Community Service-Learning: English Programs for Young Learners

In concordance with the internationalization of the community, needs for practical and authentic English communication opportunities grew. As for primary education, the "Period for Integrated Studies" in elementary schools began in 2002. This allowed schools to flexibly utilize the time allocated for this subject, and in various districts they started English activities during the periods allotted. There was a growing demand for such English activities to be facilitated in the schools of the community surrounding the junior college as well.

Since the junior college focused on English language studies and English education, the growing demand from schools matched naturally with what the college students and faculty staff could provide to the children in the community. It started at one class, responding to a request from one teacher in a local public elementary school. A college professor helped volunteer students to organize a circle, create teaching plans and teaching materials, and practicing for teaching the lesson exclusively in English. The college students visited elementary schools and provided English-only lessons. The children and the teachers were fascinated with these communicative English lessons. The reputation grew by word of mouth, and this initiative gradually expanded and developed into a unique community collaboration program.

The activities initially conducted by a few dedicated students eventually became organized and managed by the extracurricular activity group BTC (Baby Teachers' Circle). Meanwhile, in 2005, a course in teaching English to young learners was established within the college's curriculum, allowing students to study children's English education in a specialized manner. The students applied what they learned into the actual service of giving lessons, creating opportunities to learn further, thus initiating the current cycle of service-learning principles and practices. Under the guidance and support of faculty members with expertise as English-teaching specialists, the enthusiastic English lessons provided by the students were well received by the elementary schools, with an increasing number of schools requesting participation each year.

From 2009 to 2022, students in the teaching English to young learners course consistently and systematically conducted English lessons in elementary schools within the city. The students worked in teams to lead lessons for each class. They diligently prepared lesson plans, scripts, materials, and worksheets, utilizing what they learned in relevant college courses, to ensure that the children had an enjoyable and enriching learning experience. They practiced individually and in groups to confidently and smoothly conduct the lessons entirely in English. Additionally, on the day of the lessons, they meticulously rehearsed and confirmed their group roles just before implementation to create moments where children had numerous "Aha!" moments of understanding and communication.

By engaging in service-learning activities as part of their studies, students leveraged their strengths as English majors to contribute to the local community.

Another English activity volunteer program was begun in 2016 with the aim of introducing English to pre-school children in Hadano City. Leveraging good relationships with the municipality, the service-learning center coordinated programs in which junior college students could prepare short English picture book reading and song sessions to be carried out by students at the municipal library or municipal child-care centers. This program was named Kids' English Friend. Students thus had valuable opportunities to teach English to a wide range of learners in real-life situations. They felt their efforts in preparation were rewarded and their teaching skills were helpful for the community. The college students also gained confidence seeing that children were taking part in and understanding their lessons.

Conclusion: Fruitful Community – School Partnerships

Many ways could be envisioned to measure the community impact of the programs that began in 1988, but one important indicator might be the rate of high school and university enrollment. In Hadano City initiatives have been taken so that children with foreign roots enroll in normal high school rather than evening high school. And informal assessments of children involved in service-learning programs at the junior college also show that more students with foreign roots were advancing to universities, junior colleges, and vocational schools compared to those who were entering the work force directly. Since education is a good indicator of future prosperity, it can be said that paths are opening up for children of Hadano residents regardless of their citizenship. Among children involved in the junior college volunteer and service-learning programs, several have also become junior college students themselves and have continued taking part in the programs as tutors, thus strengthening the community-school relationship even further. The junior college's Japanese and English programs for the community show positive results in the short and long term. The programs have helped enrich and empower the children and families in the community.

References

Lupas, M., & Miyazaki, S. (2020). Research Note on SUJCD and Foreign Residents in Hadano, 1987-2007: Preliminary Contextualization. *Sophia University Junior College Division Faculty Journal*, *41*, 19–32.

Ministry of Justice of Japan. (n.d.). *Wagakuni ni okeru nanmin higo no jōkyō-tō 我が国における難民庇護の状況等 [The current situation of refugee protection in Japan]*. https://www.moj.go.jp/isa/content/001393014.pdf

Miyazaki, S. (Ed.). (2024). *Tasha no tame ni, tasha to tomoni sābisurāningu ni yoru chiiki renkei 他者のために、他者とともに サービスラーニングによる地域連携 [For others, with others: Community collaboration through service learning* (A. Kano & M. Lupas, Trans.). https://www.jrc.sophia.ac.jp/uploads/2024/11/SL-booklet_web.pdf

Tōkei Hadano 統計はだの [Hadano Statistics]. (1991). Hadano-shi Kikaku Somu-bu Gyosei Eieika 秦野市企画総務部行政経営課 [Hadano City Planning and Administration Department].

Contact emails: lupas-m@sophia.ac.jp
akikano@sophia.ac.jp

Utilization of Instructional Support in Open and Distant Learning in Relation to Retention in Kenya

Mary Nyakiringa Wanderi, Kenyatta University, Kenya

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Education is impacted through content and instructors' skills while the learner must be ready and willing to learn. The learner's persistence is enhanced by utilizing support services offered. In Kenya, the dropout rate among learners in Open and Distance Learning (ODL) in public universities is alarming despite provision of the required support services. The study focused on assessing ODL 3rd year students' utilization of instructional support services, with the aim: to determine the scope of utilization of instructional support services; resources, content delivery and assessment and its relationship with retention among ODL learners in selected public universities in Kenya. Mixed method approach, having quantitative and qualitative data and a correlational research design was used. Systematic and purposive sampling was done to obtain 424/1676 sample, (Students, lecturers & staff). The study established that the R^2 value, strength of relationship on the utilization of instructional support and retention is: R^2=0.468, P=0.00. R^2 inferred that 46.8% of the variations in learners' retention in open and distance learning was explained by instructional support. The null hypothesis, H_O that indicated there was no significant relationship between levels of learner utilization of instructional support and retention in ODL was rejected for alternative H_1, there is a significant relationship. Recommendations includes: revival of regional centers for easier learner access and utilization of availed resources, increase online training programs, enhance face to face sessions for students' clarification of academic issues and promote blended learning. The research findings and recommendations anticipate to improve retention and completion in ODL.

Keywords: Instructional Support Services, Learner Retention, ODL

iafor
The International Academic Forum
www.iafor.org

Introduction

Open and Distance learning (ODL) is an innovation to education which has proved to be very relevant to many people who wish to improve their qualification for career progression. Globally enrollment is high especially in development countries such as USA and Australia. University of south Africa (UNISA) the biggest provider of Distance Education (DE) has increased enrolment throughout due to its provision of both online and correspondence education on demand. As ODL globally continues to increase, students' retention rates continue to recede. The retention rate is measured by graduation rates. In UK the graduation rates are quite low compared with UK conventional education, (Simpson, 2004) as graduation rate recedes, it serves as a warning of danger in the education program. Learners need to be supported in every way possible for success and retention (Moore et al., 2011). Learner retention can be increased by providing and utilizing support services.

Globally studies have shown retention as an indicator of functioning and successful education program in universities. Low retention indicates dysfunctional and inefficient educational program and thus negatively impacts on institutional financial planning and development (Wanderi et al., 2023). Retention may be raised by offering support services to the ODL learners, who are isolated from the institutions and others have family responsibilities tying them and hindering effective learning. Some of the support services they require to utilize and be retained is instructional support. In Hong Kong open universities, Tladi (2013) found out that high level student persists but weak student quit the program at some point. Other reason of attention as revealed by Baloyi (2012) is wrong choice of courses. All this demonstrates the cause as lack of guidance by those charged with the responsibility.

In S.A a study by Zawacki-Richter and Qayyum, (2019) found the need for enhancing access and utilization of learning resources amongst ODL learners as was low leading to dropout. In Kenya, Doreen (2015) carried out a study at the university of Nairobi (UON) and found the institution struggling too to retain ODL learners as support services are inaccessible to them. In Kenyatta University individual instructional and institutional challenges also exists which cause dropout prematurely (Njihia et al., 2016). In Kenya the commission of university education (CUE, 2014) maintains high standards of education quality and relevance of courses taught in education institutions. It advocates same principles governing face to face learning to be the same governing Open and Distance Education (ODE) environment. One of the principles is to direct universities to provide effective student support services which should be regularly assessed & be utilized in the learning centers. All this is done to enhance learners' retention (Pegg, 2010).

Despite the GOK concern, ODL continue to drop out registering low progression and graduation rates. The expectation is that universities should be offering learner support services to ODL and ensure they utilize them to progress and graduate. The unanswered question is whether learner support services are availed and utilized effectively by learners to raise their retention in universities. It's against this worrying trend on retention that this study sought to focus on the utilization of instructional support services and its relationship with retention among ODL. The study was done in selected public universities in Kenya.

Objectives

i) To determine the relationship between utilization of instructional support services and retention among learners in open and distance learning in selected public universities in Kenya.

Hypothesis

H_O: There is no significant relationship between utilization of instructional support services and its relationship with retention among learners in ODL in selected public universities in Kenya.

H_1: There is a significant relationship between the scope of utilization of instructional support services and its relationship with retention among learners in ODL in selected public universities in Kenya.

Literature Review

Instructional support services include material & human resources, content delivery and assessment. For effectiveness, all resources require to be available, accessible and users be comfortable while utilizing Self-instructional material should be learner centered, self-explanatory, self-motivating and self -evaluating (Gbenoba & Dahunsi, 2014). This eliminate feeling of isolation in absence of a teacher. Institutional leaders secure and manage necessary resources for online program (Munyi, 2017) Media is one of the key resources in ODL that help in achieving specific distant educational objectives. The commonly used media includes, print, audio and video media. Each media despite its relevance in open and distance learning has its own weakness and strength which must match the knowledge and skills expected (Schein et al., 2010). Despite the upcoming technology, print media, modules and study guides are extensively being used today in developing countries. Countries like Spain and Latin America has print media as the main choice of media combined with audio cassette and radio broadcast for enhancing quality (Moore et al., 2011).

A survey study by Traxler (2018) in Pakistan, Bangladesh Open University to find the media in use in ODL discovered the main medium is television while printed textbooks complement the same. The study done was a survey in methodology but the reviewed work is correlational.

In U.S.A among Kentucky community, an empirical study based on learning Physics through distance learning led by Shuler and colleagues (2013) revealed that the students applied printed text books with a CD plus discussion due to lack of adequate skills in computer literacy. 78 % of the learners rated the physics class as excellent in performance and this led to a successful completion of the course and graduation rate improved. This conclusion may not be the same in African countries including Kenya since the learner characteristics may differ. The study also was specific with Physics learning and used printed textbooks with CD while the current study will focus on utilization of instructional resources in relation to learner retention.

In U.K, Brick (2012) carried out a study to assess the use of video technology and found that interactive video technology was comfortable to learners and they also developed positive attitude toward the ODL Despite this case in U.K, in developing countries, video technology is rarely utilized due to financial implications.
On content delivery Shuler and colleagues (2013) carried a study on mobile phone penetration in Asia. The findings showed that the use of mobile phone had risen greatly from 19.7% in

2001 to 40.9 % in the year 2005. Another finding from the study was that the mobile phone in Asia is owned by majority of the people in the lower social economic segment of the society. Another study was done on the working of mobile phones in Philippines, for the delivery of English language and Mathematics courses (Dede, 2016). The study revealed how SMS using mobile phones has constant feedback and thus hasten course delivery in open and distance learning. The two studies were done outside Kenya and so there is need to carry out the study in Kenya, in institutions of higher learning. The studies done did not relate to ODL learners' retention.

In Nigeria according to (Kwasu, 2015), face-to -face contact and print media are the major media for learning in distance education. Other media are rarely used due to poor electrical power connection in rural set ups, unavailability of the required technology, lack of experts and finances to maintain available equipment and lack of interest in media usage. These findings are indicative of failure to utilize support services meant to boost learners' retention.

Other modes of course delivery in existence and effective in delivering course content includes: computers and internet, teleconferencing, digital platform communication i.e. asynchronous and synchronous mode of communication. Charalambos and Glass (2017) did a study to compare asynchronous and synchronous way of learning and found that the two types of lectures are effective in delivering instructions online. Most of the listed modes of delivery are yet to be utilized in most institutions in the developing countries due to limited financial resources (Hall, 2014).

Nyerere (2016) carried a baseline survey on modes of content delivery in ODL in Kenya and. found different varied modes in use in institutions of higher learning. The most preferred modes are; course modules, lecture notes and blended approaches. The least preferred modes of delivery were video conferencing and skype. She found that over half of the Kenyan learning institutions offering ODL programs have not installed the needed technology. In this study, Nyerere dealt with provision of ICT support services only while the current review dealt with utilization of instructional support services related to learner retention in selected public universities.

Research Design, Methodology and Analysis

Mixed method approach and correlational research design was adopted for the study which targeted a total of 1676 respondents from Kenyatta University and 792 from University of Nairobi. They comprised of 1510 ODL 3rd year students, 158 lecturers and 8 university staff. Krejcie and Morgan table was used to obtain a sample size of 306 ODL students and 110 lecturers. Purposive sampling was used to sample two public universities from the eight which offer ODL programs and also to sample eight key administrators in the two universities. Systematic random sampling was used to sample the third year ODL students. The total respondents were 424 which is 25% of the total population. According to Al-Rahmi and colleagues (2015), 10%- 30% sample size is a good representation when the population is less than 10,000.

The quantitative data was collected from ODL students and lecturers by use of questionnaires while the qualitative data was collected from key ODL administrators: Deans, Chief Librarian, Mentors & ICT Directors) using interview schedules.
Three aspects of validity were relevant to the study, namely face, content and construct validity. Construct validity considered the extent to which the instrument measure theoretical construct

it's supposed to measure. It's guaranteed by defining variables being measured, formulation and testing of the study hypothesis. Content validity measured the appropriate content by relying on the knowledge of people familiar with the content being measured. Face validity shows the extent to which the instrument is subjectively viewed to measure variables it's supposed to measure (Hall, 2005). It was done by experts in the area. Reliability is the consistence of measurement in eliciting same response every time the instrument is administered. Cronbach's alpha coefficient was used to measure internal consistency where coefficient: >0.9, excellent, >0.8, Good, >0.7 Acceptable, >0.6 Questionable, >0.5 Poor, <0.5, unacceptable (Wambugu & Njeru, 2017).

By using the statistical Package for Social Sciences (SPSS) version 25.0 software, the quantitative data collected was entered, cleaned and analyzed. The inferential and descriptive statistics mainly frequency tables, figures, pie charts and bar graphs were used in the presentation of data which was analyzed through percentages, means and standard deviations were used to analyze the Likert scale data. The responses to the five-point Likert scale summarized into five responses: 5-strongly agree, 4-Agree, 3-Not sure, 2- disagree 1-Strongly Disagree. Interview guides for key administrators sought to gather views of each of the learner support services, as related to their areas of expertise. The interview guide allowed collection of in-depth information by probing the interviewee. The collected qualitative data was analyzed using themes and quotes from respondents' voices. Relationship between instructional support service and retention was tested by calculating the correlational coefficient (R). If the value of R is positive, it indicates a positive correlation between the two variables and in the same direction., while negative value indicates negative correlation in the opposite direction. Zero indicates lack of correlation.

The hypothesis was tested through regression analysis to show the effect of utilization of instructional support services on retention. The multiple regression formula used is:

$$Y= \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e. \quad (1)$$

Results and Discussion

Response Rate

Table 1: Respondents Response Rate

Respondent Category	Questionnaires Issued	Questionnaires Returned	Response Percentage
ODL Students	306	292	95.42%
Lecturers	110	78	70.91%
ICT Directors	2	2	100.0%
Librarians	2	2	100.0%
Mentors/Advisors	2	2	100.0%
Deans	2	2	100.0%
Total	**424**	**380**	**89.62%**

The Table1 shows response rate from the two universities. The 89.62% response rate of the study population was considered to be adequate to address the research hypothesis. This response rate aligns with the recommendation by Brick (2012) of having a response rate above 50%. It ensures the collection of sufficient data that could be generalized to represent the

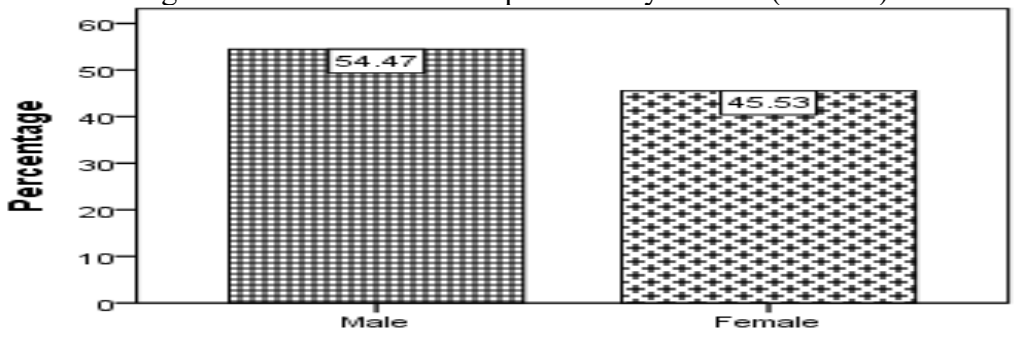
opinions of respondents in the target population, contributing to a comprehensive understanding of the study problem.

Demographic Information

Gender and Respondents Category. This section also contains information on demographic distribution in terms of gender.

Gender category in open and distance learning was analysed as shown in Figure 1.

Figure 1: Distribution of Respondents by Gender (N =380)



The study findings indicated that a majority of the respondents *n* =207, 54.47% of respondents were male while *n*=173, 45.53% were female. This implies that many of the respondents within the target population were male.

Respondents' Age. The respondents' age was also evaluated and analysed and the findings are shown in Table 2.

Table 2: Distribution of Respondents by Age (N =380)

Age	Frequency	Percentage	Cumulative Percent
18-29 Years	177	46.6	46.6
30-39 Years	167	43.9	90.5
40-49 Years	18	4.7	95.3
50 and above	18	4.7	100.0
Total	380	100.0	

Based on the analysis, the majority of respondents fell within the age range of 18 to 29 years 46.6 %, 30 to 39 years 43.8%, 40 to 49 years and above 50 years was the same (4.7%). This implies that the most of the respondents were youths who had registered for open and distance learning and it could be concluded that many youths in Kenya prefer distance learning perhaps due to the fact that they are more efficient in the utilization of technology in comparison to the more seasoned students, This argument concurs with the study findings of a study conducted by Britl (2012) which established that the older students prefer attending face-to-face classes due to their incompetence in the use of technology required as opposed to the younger students.

Distance of Home From Campus. The study aimed to examine the proximity of the respondents' residences to the campus.

Figure 2: Distance of Residence From Campus

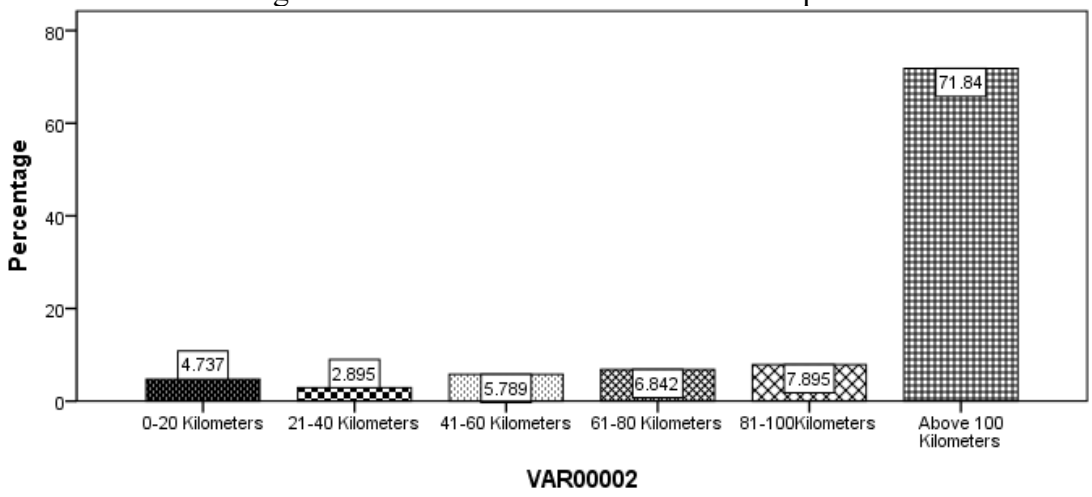
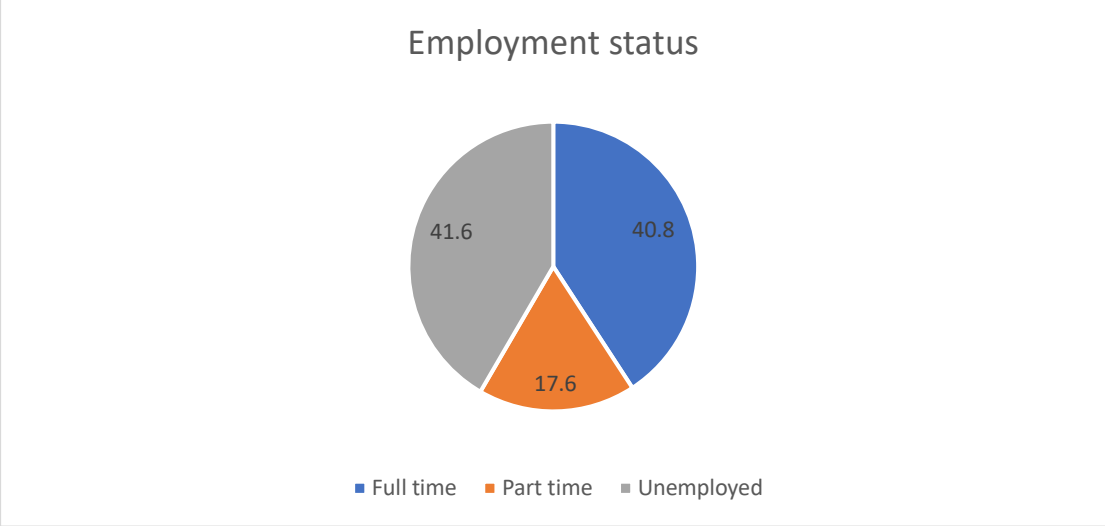


Figure 2 illustrates the distance of residence from campus of the respondents.

The findings clearly demonstrated that the number of students who enrolls for distance learning was directly proportional to the distance between the campus and the student's home. Commuting could have resulted in significant expenses and time consumption as well. The study reveals that students appreciate blended learning as it offers the greatest level of choice to them particularly in allowing them to work from a location convenient to them and avoid travel costs.

Employment Status. The participants were requested to specify their employment status as either full-time, part-time, or unemployed. Results are as shown in Figure 3.

Figure 3: Employment Status

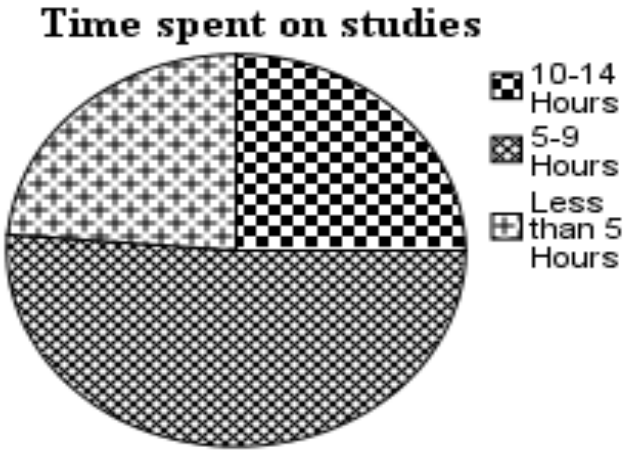


The response as per Figure 3 suggests that majority at 41.6% were unemployed, 40.8% were employed on full time and 17.6 % were employed on part-time. The unemployed respondents are inclined to enroll in open and distance learning to enhance their employability skills for desired workplaces (Pegg, 2010). Full-time employees' rate of 40.8% may be attributed to their limited availability for face-to-face learning at educational institutions. Distance learning allows them to enhance their skills in the workplace and increase their chances of promotion.

Additionally, some individuals may choose open and distance learning to make up for missed educational opportunities, others prefer distance learning due to lack of enough income for on-campus education among others (Zawacki-Richter & Qayyum, 2019).

Time Spent on Studies. The study also considered the amount of time that learners (respondents) spend on their studies.

Figure 4: Time Spent on Studies



The results in Figure 4 indicates that majority, 76.3 % of the distance learners spend between 5-9 hours while 25% of the learners spend between 10-14 hours and 23.7% of the students spend less than 5 hours in their studies. Those spending 5-9 hours are the majority and could be the employed. They could be rarely getting time but they create from their busy schedule. The minority of learners, 23.7 % who spend, less than 5 hours a day may be highly committed to other duties despite their willingness to study. Tladi (2013) notes that learners who are working and may have family duties cannot commit themselves to full time classes and have greater attrition. They utilize the availed support minimally even though in need of it.

The ICT Gadgets the ODL (Respondents) Own and Whether the University Communicate Through the Gadgets. The study went further to establish the information communication gadgets that the respondent had and whether the university communicates through them.

Table 3: The ICT Gadgets Odl (Respondents) Owned and Whether the University Communicates Through the Gadgets

ICT Garget the Respondent Owns			
	Smart phones	**Tablets**	**Laptops**
Yes	99.6%	12.4%	62.2%
No	0.4%	87.6%	37.8%
Total	**100%**	**100%**	**100%**
Does the university communicate through use of the ICT gargets			
	Frequency	Percent	Cumulative Percent
Yes	368	96.8	96.8
No	12	3.2	100.0
Total	**380**		**100%**

The study found out that 99.6% the of the learners had smartphones, 62.2% of the respondents had laptops and 12.4% had tablets. Besides having the communication gadget, the respondents were to declare whether the university has communicated to them through the ICT gadget and majority at 96.8% agreed that the university has communicated to them through the ICT gadgets. This is an indication that majority has embraced technology adoption in open and distance learning and the university is doing its best to liaise with the learners. The findings also agree with (Schein et al., 2010) who found that where there is a barrier in learning due to cost, mobile phones can increase access.

Duration Taken to Pursue Undergraduate Degree. The respondents were also put to task to state how long they had been pursuing their current degree program.

Table 4: Duration Taken to Pursue Undergraduate Degree

Duration Taken to Study	**Frequency**	**Percentage**	**Cumulative Percent**
0-3 Years	185	48.7	48.7
3-4 Years	105	27.6	76.3
5-6 Years	90	23.7	100.0
Total	**380**	**100 %**	

From Table 4, it was established that 48.7% of the respondents had been pursuing their current degree for 0-3 years and 27.6 % of the respondents have been pursuing for 3-4 years. The longest duration taken is 5-6 years. The findings suggest that the population of ODL learners' lean towards those that are newly admitted compared to older admissions. This can also be interpreted to mean that ODL learners have been increasing over the years.

Descriptive Findings

The study's objective was to determine the level of utilization of instructional support services and its relationship with retention amongst learners in open and distance learning in selected public universities in Kenya. Descriptive statistical analysis was done using mean, standard deviation, and variance and the results obtained were presented in tables. The participants were asked to provide their ratings on the level of agreement or disagreement with statements regarding the impact of instructional support services on learners' retention. The sub-variables: resources, content delivery and assessment were used to measure level of utilization of instructional support services on learners' retention on a five-point Likert scale of 1-5; where 1=Strongly Disagree (SD); 2=Disagree (D); 3=Neutral (N), 4=Agree(A) and 5=Strongly Agree (SA). Table 5 gave the details of the results.

Utilization of Resources for Learners' Retention.

Table 5: Utilization of Instructional Resources (N=380)

Resources	**MEAN**	**S. D**
Modules & study guides available	3.52	1.064
Utilization of Resources	3.94	1.064
Financial assistance	3.22	1.181
Relationship with tutors	3.69	1.100
Face to face sessions	4.05	0.43
Total	**3.68**	**1.070**

The findings indicate that the majority of the respondents agreed with various statements related to the utilization of instructional support resources. The mean scores and standard deviations provide further insight into their agreement. The combination of online and face-to-face interaction with lecturers during the instructional process got the highest mean of 4.05 and a S.D of 0.943. This indicates their desire for both modes of interaction, which motivates their progression. Overall, the majority of respondents agreed with all the items related to the utilization of instructional support resources, as indicated by an overall mean score of 3.68.

Content Delivery and Learners' Retention. Content delivery refers to various ways of delivering ODL content. In most cases, interactive resources are used such as staff, audio video, digital platform communication or mobile phones.

Table 6: Content Delivery (N=380)

Content Delivery	**Mean**	**S. D**
Teaching content and approaches	3.83	1.042
Digital literacy training and application	3.84	0.991
Staff digital competence	3.64	1.173
Learner online communication	3.57	0.929
Face-Face Sessions at study centers	3.69	*0.985*
Total	**3.71**	**1.02**

The findings indicate that the respondents agreed with all the statements since none was below a mean of 3.5. The overall mean score was 3.71 and a standard deviation of 1.02. The highest

mean was 3.84 representing digital literacy training and application. This was the highest mean attained since digital literacy has been widely trained and utilized in content delivery. An interviewed librarian had this to say in support to this statement:

> The library department collaborates with ICT department to provide remote access to learners thus ensuring that training is always readily available. During COVID -19, an E-class was set up that was and is still accessible to all registered students. The E-class is kept vibrant by ensuring that students are fully engaged with assignments. This Level of engagement greatly contributes towards retention of students.

A study by Nyerere (2016) revealed the effectiveness of ICT in ODL service delivery and recommended its installation in institutions of higher learning offering ODL.

Utilization of Assessment and Learners' Retention. Assessment plays a crucial role in instructional support and is an integral part of the learning process. The Commission of University Education emphasizes the significance of effectively managing examinations and assessments in open and distance learning. Respondents responded:

Table 7: Utilization of Assessment for Learners' Retention (N=380)

Assessment	Mean	S. D
Frequency of assessment.	3.48	1.216
Prompt feedback on tests & assignment	3.23	1.191
Frequency of missing marks	3.53	1.282
Importance of academic advice	3.34	1.173
Effectiveness of assessing learning materials	3.37	1.143
Total Assessment	**3.39**	**1.20**
Overall Instructional Support Mean	**3.59**	**1.02**

The results from Table 7 indicate that the majority of the respondents agree with various aspects of assessment in the context of instructional support. The highest mean under assessment is on the issue of missing marks, M=3.53. It shows majority of respondents had missing marks which could cause negative reinforcement. Assessment was frequently done. The lowest mean, 3.23 showed feedback on tests and assignment was not prompt and an improvement is therefore required. The overall mean score of assessment of 3.39 and a standard deviation of 1.20 was observed. In conclusion, the respondents agreed that the instructional support services considered in the study had a positive impact on learners' retention while some areas need improvement.

The overall mean score for all sub variables (resources, content delivery & assessment) related to utilization of instructional support was 3.59, with a standard deviation of 1.02. This indicate that utilization of instructional support services has an impact on learner retention.

Pearson Correlation Coefficient Analysis. Correlation analysis shows the strength of relationship. In the study, Pearson Correlation coefficient was calculated to find if there is linearity between the two, instructional support services and learners' retention. Table 8 shows the obtained value.

Table 8: Linearity Test Between Instructional Support and Retention

		Learners Retention (Y)	Instructional Support Services
Learners' retention in open and distance learning (Y)	Pearson correlation	1	.644**
	Sig. (2-tailed)		.000
	N	380	380
Instructional support services	Pearson correlation	.644**	1
	Sig. (2-tailed)	.000	
	N	380	380

The presented result in Table 8 indicates that the variables learners' retention in open and distance learning and instructional support services had a positive relationship indicated by a correlation coefficient value of 0.644***. This shows existence of a linear positive relationship between instructional support services and learners' retention. This indicate that an increase in utilization of instructional support services would lead to a linear increase in learner retention in ODL in public universities in Kenya.

Regression Analysis (Test for Hypothesis). The regression analysis was carried out to determine the relationship between instructional support services and retention. A simple regression was conducted to obtain R^2, the proportion of the variance in dependent variable from the independent variable. Calculated F value measure coefficients and the suitability of the model which confirm or reject research hypothesis.

Table 9: Analysis for Instructional Support Services and Retention

Model	R	R Sq.	Adjusted R Sq.	Std. Error of the Estimate	Durbin//-Watson
1	.684[a]	.468	.463	.43439	2.187

a. Predictors: (Constant), Resource, Content Delivery Assessments and Learners retention in open and distance learning.

Analysis of Variance

Model		Sum of Sq.	Df.	Mean Sq.	F	Sig.
1	Reg	62.343	3	20.781	110.131	.000[b]
	Residual.	70.948	376	.189		
	Total	133.291	379			

a. Dependent Variable: Learner's retention in Open and distance learning
b. Predictors: (constant), Resource, Content delivery and assessments

Overall Regression Coefficients

	Un Std Coeff		Std Coeff	T	Sig.	Collinearity Statistics	
	B	Std. Er	Beta			Tolerance	VIF
(Constant)	1.530	.117		13.099	.000		
Resource	.218	.051	.268	4.237	.000	.353	2.831
Content Delivery	.136	.050	.191	2.709	.007	.285	3.506
Assessments	.209	.038	.301	5.454	.000	.464	2.154

From the Table 9, the value of R^2 was 0.468 inferring that 46.8% of the variations in learners' retention in open and distance learning was explained by instructional support services. Besides

that, the fitness of the model was also examined based on F-Statistics value of 110.31 with corresponding p-value of 0.00 which was below 0.05. These findings showed existence of significant relationship between instructional support services and learners' retention in ODL in selected public universities in Kenya. This means that the utilization of instructional support services significantly affects learners' retention in ODL. There is also corresponding t-statistics values of 4.237, 2.709 and 5.454 for the model. The regression equations between learners' retention in open and distance learning and instructional support services for the model can be expressed as: $Y=1.530+0.218X_1+0.136X_2+0.209X_3$. Based on these preliminary findings, the null hypothesis was rejected and the alternative hypothesis was accepted and the conclusion was that instructional support services (Resource, Content Delivery and Assessment) had significant positive influence on learner's retention in ODL in selected public universities in Kenya. The study, based on these findings showed some uniformity with the findings of Gao (2012), who investigated the effect of academic support services on learners' retention in open and distance learning. However, his study was limited to university of Nairobi alone.

Conclusion

Delivery of well-structured academic content under instructional support services was found to be quite significant in the retention of ODL learners in public universities in Kenya. It also requires ICT training of lecturers and learners for easier content delivery. The mode of delivery needs to be appropriate and effective for the isolated ODL learners to utilize. Collection of data from scattered ODL was difficult but was done as they came for exam cards. Materials on instructional support was scarce but was obtained from outside Kenya. The overall finding showed utilization of instructional support services significantly affect learner retention.

Acknowledgement

Special acknowledgement goes to our heavenly father for His gift of life and good health, His provisions, knowledge and skills He rendered me to wade through tough moments towards completion of this degree.

Secondly to my aged dad and late mum for imparting in me the qualities of hard work, selflessness, commitment and resilience. This has motivated me all through in this long journey of resilience towards acquiring PhD Degree.

Distinctive thanks go to Kenyatta University for the award of PhD degree and most significantly to my supervisors, Dr. S. Waweru and Dr. F. Itegi who guided and encouraged me to push on despite the many challenges i went through in the course of on my academic journey.

References

Al-Rahmi, W. M., Othman, M. S., & Yusuf, L. M. (2015). The role of social media for collaborative learning to improve academic performance of students and researchers in Malaysian higher education. *International Review of Research in Open and Distance Learning*, *16*(4), 177–204.

Baloyi, G. P. (2012). *Learner support in open and distance learning context: a case study of ABET programs at the University of South Africa*. *November*. http://uir.unisa.ac.za/handle/10500/11888

Brick, B. (2012). The Role of Social Networking Sites for Language Learning in UK Higher Education. *International Journal of Computer-Assisted Language Learning and Teaching*, *2*(3), 35–53. https://doi.org/10.4018/ijcallt.2012070103

Britl, M. (2012, July). Social media for schools: a guide to Twitter, Facebook and Pinterest. *The Guardian*.

Charalambos, V., & Glass, G. V. (2017). *A conceptual framework for studying distance education*. March.

CUE. (2014). The Universities Regulations 2014. *The Kenya Gazette*.

Dede, C. (2016). *THE ROLE OF DIGITAL LEARNING IN ASIA' S EDUCATIONAL FUTURE*. *4*.

Doreen, G. (2015). *Influence of learner support services on students' retention in distance education programmes in institution of higher learning: a case of Kenya Methodist university, Kenya.*

Gao, S. (2012). *Learner Support for Distance Learners A Study of Six Cases of ICT-based Distance Education Institutions in China*.

Gbenoba, F., & Dahunsi, O. (2014). Instructional Materials Development in ODL: Achievements, Prospects and Challenges. *Journal of Educational and Social Research*. https://doi.org/10.5901/jesr.2014.v4n7p138

Hall, R. (2005). John holden's capturing cultural value: How culture has become a tool of government policy. In *Cultural Trends* (Vol. 14, Issue 1, pp. 113–128). https://doi.org/10.1080/09548960500164533

Hall, S. J. (2014). *How Higher Education Institutions Utilize Social Media*.

Kwasu, I. A. (2015). *Effectiveness of Animated Instructional Resource for Learning Facilitation among Secondary School Student in Bauchi Nigeria*. *6*(21), 113–121.

Moore, J. L., Dickson-deane, C., & Galyen, K. (2011). Internet and Higher Education e-Learning, online learning, and distance learning environments: Are they the same? *The Internet and Higher Education*, *14*(2), 129–135. https://doi.org/10.1016/j.iheduc.2010.10.001

Munyi, F. W. (2017). *RELATIONSHIP BETWEEN ATTITUDE OF TEACHERS AND STUDENTS AND ADOPTION OF E-LEARNING BY PUBLIC SECONDARY SCHOOLS IN KENYA*. *1*(I), 12–22.

Njihia, M., Wanjiku Mwaniki, E., Muriithi Ireri, A., & Chege, F. (2016). *Uptake of Open Distance and e-Learning (ODEL) programs: A Case of Kenyatta University*. https://www.researchgate.net/publication/315688656

Nyerere, J. (2016). *Open and Distance Learning in Kenya A Baseline Survey Report Commissioned by the Commonwealth of Learning*.

Pegg, A. (2010). *A closer relationship between working and learning? Employers and distance learners talk about developing work skills ARTICLE*.

Schein, R., Msc, W., & Keelan, J. (2010). *LITERATURE REVIEW ON EFFECTIVENESS OF THE USE OF SOCIAL MEDIA A REPORT FOR PEEL PUBLIC HEALTH*.

Schein, R., Wilson, K., & Keelan, J. (2010). Literature review on effectiveness of the use of social media: A report for Peel Public Health. *Challenges*, *129*(1), 63. http://www.peelregion.ca/health/resources/pdf/socialmedia.pdf

Shuler, C., Winters, N., & West, M. (2013). THE FUTURE OF MOBILE LEARNING - Implications for policy makers and planners. *UNESCO - United National Educational.*, 1–44. https://doi.org/ISSN 2227-5029

Simpson, O. (2004). "STUDENT RETENTION AND THE COURSE CHOICE PROCESS: THE UK OPEN UNIVERSITY EXPERIENCE." In *Journal of Access Policy and Practice* (Vol. 2, Issue 1). https://www.researchgate.net/publication/42795979

Tladi, L. S. (2013). Factors affecting examination attrition: Does academic support help? A survey of ACN203S (Cost Accounting and Control) students at Unisa. *Open Learning*, *28*(1), 67–82. https://doi.org/10.1080/02680513.2013.782812

Traxler, J. (2018). *education sciences Distance Learning — Predictions and Possibilities*. https://doi.org/10.3390/educsci8010035

Wambugu, G. M., & Njeru, K. M. (2017). *Impact of Managerial Interventions on Process in implementing Information Systems for Higher Education Institutions in a developing country*. *1*(Ii), 1–13.

Wanderi, M. N., Waweru, S. N, & Itegi F. M. (2023). Utilization of Support Services and its Relationship with Retention Among Open and Distance Learners in Selected Public Universities In Kenya. *International Journal of Education, Management & Administration*, *8*(XI). www.focusjournals.org

Zawacki-Richter, O., & Qayyum, A. (2019). *SPRINGER BRIEFS IN OPEN AND DISTANCE EDUCATION Open and Distance Education in Asia, Africa and the Middle East National Perspectives in a Digital Age*. Springer Briefs in Education. http://www.springer.com/series/15238

Appendices

Appendix A: Research Authorization

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: kubps@yahoo.com
dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: E83/CE/23723/12 Date: 31st August, 2021

The Director General,
National Commission for Science, Technology & Innovation,
P.O. Box 30623-00100,
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MS. WANDERI N. MARY - REG. NO. E83/CE/23723/12

I write to introduce Ms. Wanderi who is a Postgraduate Student of this University. She is registered for a Ph.D. degree programme in the Department of Educational Management Policy & Curriculum Studies in the School of Education.

Ms. Wanderi intends to conduct research for Ph.D. thesis entitled, "Relationship Between Utilization of Learners Support Services and Retention among Open and Distance Learners in Selected Public Universities in Kenya".

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. ELISHIBA KIMANI
DEAN, GRADUATE SCHOOL

RM/cao

Appendix B: Permission to Collect Data in Kenyatta University

KENYATTA UNIVERSITY

OFFICE OF DEPUTY VICE-CHANCELLOR, RESEARCH, INNOVATION AND OUTREACH

Ref: KU/DVCR/RCR/VOL.3/318

P. O. Box 43844 – 00100
Nairobi. Kenya
Tel. 254-20-810901 Ext. 026
E-mail: DVC-RIO@KU.AC.KE

Ms. Mary Wanderi,
Dept. of Educational Management
Kenyatta University,
NAIROBI

6th December, 2021

Dear Ms. Wanderi,

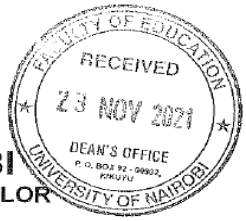
RE: **REQUEST TO COLLECT RESEARCH DATA AT KENYATTA UNIVERSITY**

This is with reference to your letter dated 19th November, 2021 requesting for authorization to collect research data at Kenyatta University on the topic **"Relationship between Utilization of Learner Support Services and Retention among Open and Distance Learners in Selected Public Universities in Kenya"** *towards the PhD degree of Kenyatta University.*

I am happy to inform you that the Vice-Chancellor has approved your request to collect data. It has been noted that your data will be collected from Directorate of ICT and the Digital School.

Appendix C: Permission to Collect Data in the University of Nairobi

4



UNIVERSITY OF NAIROBI
OFFICE OF ASSOCIATE VICE-CHANCELLOR
(Research, Innovation and Enterprise)

P.O. Box 30197-00100
Nairobi, Kenya
Website: dvcrie@uonbi.ac.ke

Fax: +254-2-2317251
Email: avcrie@uonbi.ac.ke

UON/RIE/3/5/Vol.XX **November 10, 2021**

Ms. Mary N. Wanderi
School of Education
Kenyatta University
P.O Box 4388, 001000
NAIROBI

Tel: 0780293856/0722800605

Dear Ms. Wanderi

PERMISSION TO COLLECT DATA

I refer to your request to conduct research at the University of Nairobi, for your project entitled: ***"Relationship Between Utilization of Learners Support Services and Retention among Open and Distance Learners in Selected Public Universities in Kenya."***

I write to inform you that your request has been approved.

You are however required to share the findings of your study with the University of Nairobi by depositing a copy of your findings with the Director Library & Information Services on completion of your study.

Yours sincerely,

PROF. M. JESANG HUTCHINSON
ASSOCIATE VICE-CHANCELLOR (AG.)
(RESEARCH, INNOVATION AND ENTERPRISE)
AND
PROFESSOR OF HORTICULTURE

Registar
Noted & fyg.
23.11.2021

Copy to: Dean, Faculty of Education
Director, Library and Information Services

AAM/cg

Appendix D: Data Collection Questionnaire for Students

I) Instructional Support Services and learners' Retention

To what extent do you agree or disagree with the following statements relating to the utilization of instructional support & retention of learners in ODL program? Use a tick to respond

KEY	1=Strongly Disagree	2=Disagree	3=Neutral	4=Agree	5=Strongly Agree

1	STATEMENT- ON RESOURCES	1	2	3	4	5
a	The learning resources such as study guides and modules are timely developed and availed for use at the study centers.					
B	I confidently utilize necessary resources to do my studies.					
C	Those with financial needs are assisted in fees payment to motivate and progress with their courses to graduation.					
D	Tutors in charge of course units are friendly and confident					
E	A combination of online and face-to-face interaction with the lecturers is made use of during instructional process.					
	Content Delivery					
F	Teaching content and teaching approach enable achievement of set targets and success.					
G	Learners are trained on digital literacy and use it in order to communicate with staff during the instructional process.					
H	All the staff is well trained on the use of digital skills in teaching					
I	All learners comfortably utilize learning materials online as they communicate with lecturers					
J	Face to face sessions are occasionally organized at study centers when tutors need to clarify learning issues.					
	Assessments					
K	Assignments are always given to learners after each lesson to keep them involved.					
L	Feedback on assignments, tests and exams is promptly given.					
M	Missing marks is common after exams feedback.					
N	Academic advice is given by lecturers to low performing learner for motivation and progress.					

Appendix E: Krejci and Morgan Table for determining Sample Size

Table 3.1

Table for Determining Sample Size of a Known Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size *Source: Krejcie & Morgan, 1970*

Origins of Professional Photography in Izmir During the Ottoman Era

Murat Bengisu, Izmir University of Economics, Turkey

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
After the invention of the daguerreotype, the methods and technology diffused rapidly from France to the Ottoman Empire. The earliest studios of Izmir date back to the 1860s. Most of them were located in the Frank neighborhood. These studios belonged to Greek, Armenian, or Levantine photographers. Although there are fragments of information and a limited number of photographs that reached this date, much of the history of the Frank neighborhood disappeared during the War of Independence, the big fire that followed it in 1922, and the exodus of Greeks and Armenians out of Izmir. This study delves deeper into this period in order to discover more precisely the dates, locations, establishment, and practices of the first studios of Izmir. The resulting information helps to fill some gaps in the history of photography of Izmir. The study used digital archive analysis. Photographs taken in Izmir (then Smyrna) were examined. Since photography presented great profitability during this period, pioneers who had sufficient experience and skills aimed to increase their profit by opening studios in different locations. The study followed Hannoosh's approach where the Mediterranean Sea is seen as an agent of connectivity over a fragmented region with people of different national, religious, and ethnic identities. The results suggest that Izmir was the second most important city of professional photography-related activities in the Ottoman Empire, well-respected for its artistic and technical capacity in Europe.

Keywords: Cultural Heritage, Professional Photography, Izmir, History

iafor
The International Academic Forum
www.iafor.org

Introduction

After the invention of the daguerreotype, the know-how and technology diffused rapidly from France to other countries including the Ottoman Empire. The inventions of Daguerre and Talbot were announced in Takvîm-i Vekâyi, the first official newspaper of the Ottoman Empire, on October 28, 1839 (Özendes, 1995). The first photographs of Ottoman territory were taken by Western travelers that aimed to document people, architecture, historical sites and the culture of the Middle East. Istanbul rapidly became the natural center of this new art and technology within the Empire, because it was the capital, and the Sultans supported it. It should be stressed, however, that unlike Europe, where photography had strong ties with the tradition of painting, for the Ottoman Empire it was another new technology being imported, without any links to pictorial tradition (Shaw, 2009).

For centuries, Izmir has been an important port city hosting different ethnic groups. The origins and development of photography in Izmir have not been studied in much detail so far. Sezer (2018) gives a summary of this period before discussing photographers of the new Turkish Republic, i.e. after 1923. Alkan Korkmaz and colleagues (2023) provide a closer focus on the studios that operated in Izmir before 1922, mostly around the Frank Quarter. Their study analyzes the locations of these studios with the help of a mapping method. The studios, most of which belonged to non-Muslims, were replaced after 1922 by Muslim photographers and their location moved towards the city center.

The present study delves deeper into this period to discover more precisely the dates, locations, establishment, and practices of the first studios of Izmir. The resulting information is expected to fill some gaps in the history of photography of Izmir.

Methods

The study used digital archive and content analysis. Data search involved books, journal articles, internet sources, and historical documents such as trade catalogs. Some of the digital archives that were analyzed include Levantine Heritage, Internet Archive, Getty Research Institute, and Rijksmuseum.

Izmir at the Turn of the 20th Century

Izmir has been an active seaport at the Midwestern tip of Anatolia since the 17th century. It was a religious and ethnic plurality thanks to Armenian, Greek, Jewish, and Muslim Ottomans, along with Levantines who mostly held foreign passports. A new quay was constructed between 1867 and 1875 to allow high tonnage commercial ships to dock and to respond to the great amount of trade as the most important commercial port of Ottoman Turkey (Frangakis-Syrett, 2001; Nahum, 2005; Zandi-Sayek, 2000). Izmir witnessed significant economic growth during the second half of the 19th century, accompanied by a transformation of the urban landscape.

The Frank quarter situated next to the port was the center of foreign trade activities and social life. This quarter hosted banks, consulates, luxury stores, clubs, a theater, a casino, and the headquarters of shipping companies (Driessen, 2005). The Greeks formed the second largest community after the Muslims and lived next to the Frank quarter. The Armenians were located further south in the Basmane district. The first Jewish quarter (also known as Juderia) was located at the foot of Mount Pagos between the Armenian and the Muslim quarters, close to

the Bazaar. Although Muslim Turks formed most of the population, they were largely excluded from the Frank quarter's social and economic life (Inal, 2006). Most of the Muslims lived on Mount Pagos.

The wars of independence that followed World War I, the revocation of the Ottoman rule, and the declaration of the Turkish Republic were important events that shaped Izmir and the neighboring regions. Among these, the most dramatic was the Turkish-Greek war. This war caused the loss of many civilian and military lives and ended with a great fire in the city resulting in the destruction of buildings and infrastructure especially in the Frank, Greek, and Armenian quarters (Kolluoğlu Kırlı, 2005). Furthermore, the bilateral agreement of population exchange between the young Turkish and Greek Republics resulted in the resettlement of Greeks living in Izmir and nearby cities to Greece and Turks living in Greece and Greek islands to Izmir and other western towns of Anatolia (Metintaş & Metintaş, 2018). The rapid commercial, economic, and social development of Izmir at the turn of the 20th century suffered a big blow during the Turkish-Greek war and the subsequent great fire. After these events and the population exchange during 1923-1927, the only remaining communities in Izmir were Muslims, Jews, and Levantines.

Based on a book written by Goupil-Fesquet, one of the first photographs in Izmir was taken in 1840 from the deck of the ship Iena at the presence of Archduke Friedrich of Austria during a demonstration of the invention. The oldest surviving daguerreotype of Izmir, taken by de Prangey in 1843, depicts the Kervan (Caravan) Bridge, a bridge used for the passage of caravans for trade, frequently visited by foreign travelers (Bengisu et al., 2024).

The earliest studios of Izmir date back to the 1860s. Most of them were located in the Frank neighborhood which was the most prestigious district hosting Consulates, European-style hotels, restaurants, art galleries, banks, and shops. Almost all of these studios belonged to Greek, Armenian, or Levantine photographers. Some of the leading studios of the period will be analyzed in this paper with a focus on the role of the Mediterranean Sea on the studios and professional photographers.

The Mediterranean Sea: An Agent of Connectivity

The Mediterranean is seen by historians as an agent of connectivity over a fragmented space. People, goods, languages, and ideas were brought into contact. Such contacts were unstable, violent, and conflictual due to distinct national, religious, ethnic identities. However, they provided exposure to and exchange of new ideas and practices. Photography manifests this connectivity: equipment, consumables, know-how, ideas, photographs, technicians, and photographers were always in motion on land and in the sea, particularly the Mediterranean (Hannoosh, 2016). Professional photography in Izmir originated through these routes. It also diffused from Izmir to other cities. Three of the period's important professional photographers are discussed below. Many other studios existed at the time, some of which left very small traces in terms of photographs and information.

Svoboda

Alexander Svoboda studied painting in Budapest and Venice. He practiced painting and photography in Bombay in the 1850s. He became a member of the French Society of Photography in 1856. Svoboda set up one of the first studios in Izmir, Rue Franque, in 1858 (Hannoosh, 2016). He formed strong personal ties with Britain and the two private British firms

that constructed the first two railway lines in Ottoman Anatolia. Svoboda wrote the book titled "The Seven Churches of Asia" published in 1869. This book included his personal travel account, also describing details of how to reach these historically important churches by these trains. Twenty of his albumen silver prints were mounted throughout the book. They included photographs of modern Turkish towns such as Izmir (Figure 1) as well as ruins remaining from early Christian churches and classical monuments (Herring, 2015; Soloyev, 2021). Svoboda was commissioned to photograph the visit of Sultan Abdülaziz to Izmir in 1863 and other official events. He moved to London in 1867 and presented his photographs at the Arundel Society. He may have concluded his career in photography after the publication of his book (Soloyev, 2021).

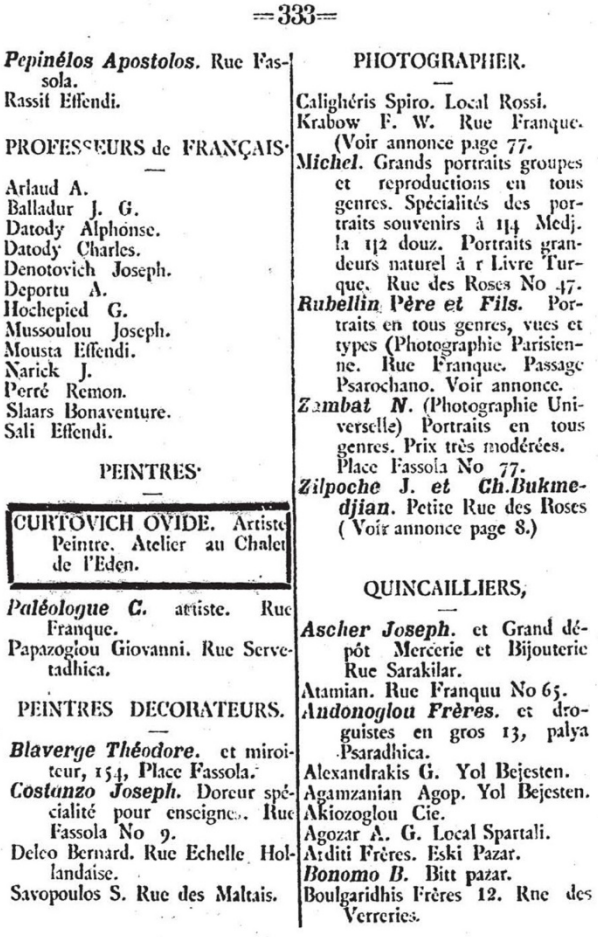
Figure 1: View of Smyrna, CA. 1859 – 1867, Albumen Print (Rijksmuseum, Amsterdam)

Krabow

According to the 1893 commercial guide of Smyrna (Nalpas & de Andria, 1893), Krabow's studio was located on Rue Franque (Figure 2). In this guide, it was advertised that his studio could take all kinds of photographs, enlarge them to natural size, and make all types of reproduction. Based on various sources, it is estimated that Friedrich Wilhelm Krabow opened the studio in the 1870's or 1880's. In a photograph taken in this studio, two people are seen: presumably a high-ranking officer and his aide (Figure 3). From the verso of the photograph, it is noted that the studio received medals from the Ottoman Sultan (Abdülaziz or Abdülhamid II), and the Swedish-Norwegian King, probably Oscar II. Krabow was commissioned to take photographs of Aydın and Denizli after a devastating earthquake in 1899. From various photographs and documents, it can be concluded that Krabow moved from Izmir to Hamburg

(Germany) and opened another studio in the Blankenese district. A cabinet card from this period (Figure 4) shows the address of this studio. The address printed on the back of another photograph from the same period indicates that the studio in Izmir was presented as the main one while Blankenese was listed as a branch. This is a good example of the connectivity between different countries across the Mediterranean and beyond. It also shows the prestige of Izmir as an important center of professional photography at the turn of the century.

Figure 2: A Page From Annuaire des Commerçants de Smyrne & de L'Anatolie, Listing Photographers of the Period (Nalpas & de Andria, 1893)



==333==

Pepinélos Apostolos. Rue Fassola.
Rassit Effendi.

PROFESSEURS de FRANÇAIS.

Arlaud A.
Balladur J. G.
Datody Alphonse.
Datody Charles.
Denotovich Joseph.
Deportu A.
Hochepied G.
Mussoulou Joseph.
Mousta Effendi.
Narick J.
Perré Remon.
Slaars Bonaventure.
Sali Effendi.

PEINTRES.

CURTOVICH OVIDE. Artiste Peintre. Atelier au Chalet de l'Eden.

Paléologue C. artiste. Rue Franque.
Papazoglou Giovanni. Rue Servetadhica.

PEINTRES DECORATEURS.

Blaverge Théodore. et miroiteur, 154, Place Fassola.
Costanzo Joseph. Doreur spécialité pour enseignes. Rue Fassola No 9.
Deleo Bernard. Rue Echelle Hollandaise.
Savopoulos S. Rue des Maltais.

PHOTOGRAPHER.

Calighéris Spiro. Local Rossi.
Krabow F. W. Rue Franque. (Voir annonce page 77.
Michel. Grands portraits groupes et reproductions en tous genres. Spécialités des portraits souvenirs à 1|4 Medj. la 1|2 douz. Portraits grandeurs naturel à r Livre Turque. Rue des Roses No 47.
Rubellin Père et Fils. Portraits en tous genres, vues et types (Photographie Parisienne. Rue Franque. Passage Psarochano. Voir annonce.
Zambat N. (Photographie Universelle) Portraits en tous genres. Prix très modérées. Place Fassola No 77.
Zilpoche J. et Ch.Bukmedjian. Petite Rue des Roses (Voir annonce page 8.)

QUINCAILLIERS,

Ascher Joseph. et Grand dépôt Mercerie et Bijouterie Rue Sarakilar.
Atamian. Rue Franquu No 65.
Andonoglou Frères. et droguistes en gros 13, palya Psaradhica.
Alexandrakis G. Yol Bejesten.
Agamzanian Agop. Yol Bejesten.
Akiozoglou Cie.
Agozar A. G. Local Spartali.
Arditi Frères. Eski Pazar.
Bonomo B. Bitt pazar.
Boulgaridhis Frères 12. Rue des Verreries.

Figure 3: A Photograph Taken at Krabow's Studio (Left) and Verso (Right)

(İpek Cabadak Collection)

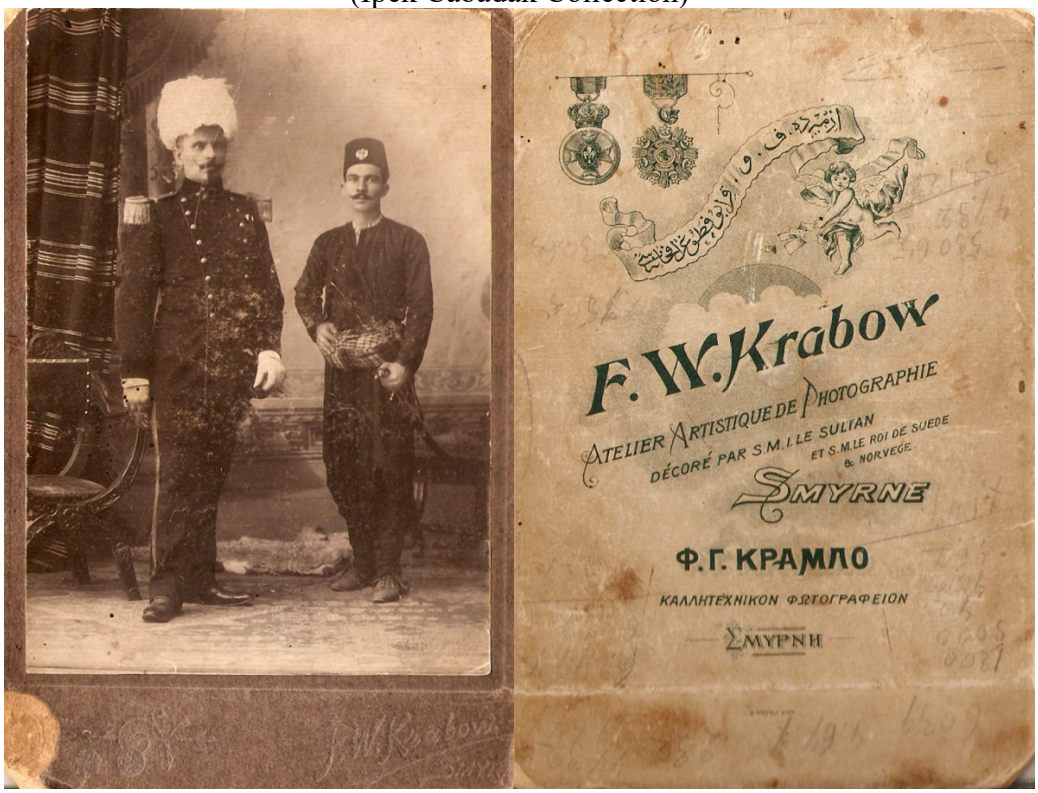


Figure 4: Ella Bierbach's Portrait, Taken at Krabow's Studio in Hamburg, for a Costume Party (Murat Bengisu Collection)

Rubellin

Alphonse Rubellin opened his photography studio in the 1860s or 70s under the name Maison Rubellin at 120 Rue Merchant (Jacobson, 2007), and later, with his son joining in 1900, this workshop was named Rubellin Père et Fils. The business operated under this name until 1913 (Weber-Unger & Domanig, 2011). It is understood from the logos he used in his photographs that he later moved to Rue Franque - Passage Psarochano and used the name Photographie Parisienne (Paris Photography House). Rubellin was one of the most active and successful photographers of the Ottoman Period. He documented historical sites in many places such as Izmir, Istanbul, Rhodes, Ephesus and Athens. Rubellin and his son used studio and city photographs on many postcards to satisfy the orientalist curiosity of the West and to market them to travelers visiting Izmir. These postcards served to provide a glimpse of the city to friends and family overseas or just to keep a memory of a visit. Postcards started to gain popularity towards the end of the 19th century. The postcard was a different way to create long-distance connectivity and communication between cities and people. Many portraits and city photographs (see for example, Figure 5 and 6) that have survived from this studio have made a significant contribution to the cultural heritage of Izmir.

Figure 5: Portrait of an Unknown Turkish Man and Boy in Traditional Costume, Albumen Print (Rijksmuseum, Amsterdam)

Figure 6: Boats Along the Seafront, 1890 (İpek Cabadak Collection)

Discussion

The analysis of three professional photographers, their careers, and their work aimed to provide a realistic understanding of the period in terms of activities, interactions, and dynamics of the profession. Various strategies were used by the studios to increase profitability such as opening branches in other cities, editing postcards, and producing photographs that would seem exotic or different to non-locals. The turmoil and instability of the period presented a big challenge to all the studios of Izmir. Some of the studio owners had to flee during the war and some of the shops burned down during the Great Fire. The Mediterranean Sea played an important role in the continuation of the careers of these photographers. For example, it is known that some of the Greek and Armenian photographers continued their work in Greece, Cyprus, or other parts of Europe, after they left Izmir. Similarly, some Muslim photographers arrived to Izmir from the Greek islands.

Conclusion

Izmir was the Ottoman Empire's second most important city in terms of professional photography. Many important photographers opened their studio at the Frank District and produced studio portraits or outdoor photographs for professional purposes. Some of them moved to other cities via the Mediterranean Sea and continued their work there. Technology, culture, and equipment were transported from one Mediterranean port to another, so did photographs, postcards, and photographers. All this connectivity helped the development of photography in the region.

Acknowledgements

I am thankful to İpek Cabadak for her contribution from her private collection.

References

Alkan Korkmaz, S., Özcan Uslu, N., & Coşkun Akdoğan, S. D. (2023). The mapping of photographer's studio in Izmir 1900-1950: From Frank Street to Kemeraltı. *IDA: International Design and Art Journal*, *5(1)*, 134-146.

Bengisu, M., Cabadak, İ., & Gagin, S. (2024). *Foto Gagin ve İzmir fotoğraf kültürü (Foto Gagin and culture of photography in Izmir)*. Izmir: İzmir Ekonomi Üniversitesi Yayınları.

Driessen, H. (2005). Mediterranean port cities: cosmopolitanism reconsidered. *History and Anthropology*, *16(1)*, 129-141.

Frangakis-Syrett, E. (2001). The making of an Ottoman port: The quay of İzmir in the nineteenth century. *The Journal of Transport History, 22(1)*. 23-46.

Hannoosh, M. (2016). Practices of photography: Circulation and mobility in the nineteenth-century Mediterranean. *History of Photography, 40*(1), 3-27.

Hannoosh, M. (2019). The Art of Wandering: Alexander Svoboda and Photography in the Nineteenth-Century Mediterranean. In *The Mobility of People and Things in the Early Modern Mediterranean* (pp. 131-151). Routledge.

Herring, A. (2015). Photographing Magnesia on the Meander: Image, Exhibition and Excavation. *History of Photography*, *39*(1), 71-87.

Inal, O. (2006). *Levantine heritage in Izmir.* PhD Thesis, Koç University, Turkey.

Jacobson, K. (2007). *Odalisques and Arabesques*. Quaritch.

Kolluoğlu Kırlı, B. (2005). Forgetting the Smyrna fire. *History Workshop Journal, 60*(1), 25-44.

Metintaş, M. Y. & Metintaş, M. (2018). Analysis of Turkish-Greek population exchange in the context of Greek and Turkish foreign policy. *Türk Dünyası Uygulama ve Araştırma Merkezi Yakın Tarih Dergisi 2*(4)*,* 73-88.

Nahum H (2005) Les Juifs à Smyrne: de l'enfermement à l'ouverture vers le monde (Jews in Smyrna: from confinement to openness to the world). *Revue des Mondes Musulmans et de la Méditerranée, (107-110)*, 97-112.

Nalpas, J. L. & de Andria, J. (1893). *Annuaire des commerçants de Smyrne & de L'Anatolie*. Smyrne: G. Timoni & Co.

Özendes, E. (1995). *Osmanlı İmparatorluğu'nda fotoğrafçılık (Photography in the Ottoman Empire)*. İstanbul: YEM Yayın.

Sezer, İ. (2018). İzmir'in görsel tarihini oluşturan fotoğrafçılar. *Sanat ve Tasarım Dergisi*, *8*(2), 66-74.

Shaw, W. M. (2009). Ottoman photography of the late Nineteenth Century: An 'innocent' modernism? *History of Photography, 33*(1), 80-93.

Soloyev, A. (2021). 'By the early train to Ephesus': Locating the railway in Alexander Svoboda's *The Seven Churches of Asia* (1869). *ASTENE Bulletin, 85*, 5-10.

Weber-Unger, S. & Domanig, A. (2011). Gipsmodell und fotografie im dienste der kunstgeschichte 1850-1900 (Vol. 4). Wien: Wissenschaftliches Kabinett.

Zandi-Sayek, S. (2000). Struggles over the shore: building the quay of Izmir, 1867–1875. *City & Society, 12*(1)*,* 55-78.

Contact email: murat.bengisu@gmail.com

Integrating Rousseau's "Dialogue With the Self" and Inner Development Goals (IDG): Fostering Self-Awareness and Creativity in Education

Yuko Miyazaki, Showa University of Music, Japan

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
This study applies Jean-Jacques Rousseau's concept of "Dialogue with the Self" to educational practice and explores its integration with Inner Development Goals (IDG). In works such as *Emile* and *Reveries of the Solitary Walker*, Rousseau emphasizes the need for introspection through self-dialogue for personal growth. This study implemented a self-dialogue approach using puppet theatre in a German conversation class at a Japanese university (41 students), measuring its impact on vocabulary acquisition, dialogue proficiency, and creativity. Additionally, this study links Rousseau's philosophy with the 23 skills and qualities of IDG to investigate how self-dialogue fosters learners' inner growth. By analyzing videos based on Rousseau's three forms of self-dialogue (dialogue with oneself, dialogue with others, and transformational representation), this research demonstrates that providing opportunities for self-dialogue enhances self-awareness, empathy, and creative thinking, ultimately fostering sustained motivation for learning.

Keywords: Self-Awareness, Self-Transformation, Creative Thinking

iafor
The International Academic Forum
www.iafor.org

Introduction

Essential Skills in 21st-Century Education

With advancements in information technology, education requires knowledge acquisition, self-awareness, emotional intelligence, creativity, and critical thinking skills. A sustainable society depends on collaboration, an understanding of diverse values, and the capacity for self-transformation. Traditional education often focuses on knowledge transmission, whereas Rousseau's educational philosophy highlights the importance of learning through self-dialogue. According to Storey (2012), Rousseau views the search for self-knowledge as an endeavor that must be undertaken within the social world. This makes Rousseau's self-dialogue highly relevant to modern educational challenges, particularly when considered alongside Inner Development Goals (IDG).[1]

Rousseau's "Dialogue With the Self" in Education. Rousseau's concept of self-dialogue has often been interpreted as meaning that he preferred solitude and seclusion. However, his method of expressing himself as a form of self-dialogue was created as a way of presenting his ideas to society in his novels. This approach may be applicable to current education as a means of communicating while focusing on the state of one's inner self and mind.

This study focuses on Rousseau's three primary forms of self-dialogue. First, facing oneself, as seen in *The Confessions* and *Reveries of the Solitary Walker*, involves deep introspection, articulating experiences and emotions, and fostering self-awareness. Second, as discussed by Emile, facing others shows how self-dialogue influences interpersonal relationships, in which insights gained from self-dialogue are crucial. Finally, transformational representation, as demonstrated in *Pygmalion*, allows learners to acquire new perspectives and cultivate creative thinking through artistic and metaphorical expression.

Connection With Inner Development Goals. IDG provides a framework for the inner skills and qualities necessary for a sustainable society, categorized into five dimensions. The dimension of Being (relationship to self) involves self-awareness and the establishment of an inner compass. Thinking (cognitive skills) includes both critical and complex thinking. Relating (caring for others and the world) fosters empathy and an inclusive perspective. Collaborating (social skills) encompasses communication abilities and trust-building. Acting (i.e., enabling change) focuses on creativity and resilience. This study integrates Rousseau's self-dialogue and IDG into educational practice to examine their impact on learners' inner development.

Background of the Study

Trends and Challenges in 21st-Century Education. Modern education emphasizes learner autonomy, rather than mere knowledge transmission. This shift prioritizes approaches such as cooperative learning, which engages students in group activities to deepen their interpersonal relationships, and individual learning, which allows them to learn at their own pace and enhance their self-regulation skills. Physical activity also plays a crucial role in the use of movement to reinforce sensory understanding and memory retention.

[1] Inner Development Goals: https://innerdevelopmentgoals.org/framework/ (Feb. 01. 2025)

Student Feedback. Students provided feedback through a questionnaire administered in December 2023 (35 students) and again in July 2024 (39 students).[2] The results of the 2023 questionnaire indicated that the students enjoyed working together and improving their vocabulary through improvisation activities. However, only slight improvements in creativity and self-expression were observed. Some students preferred individual activities as they found them better for concentration and relaxation. By contrast, the July questionnaire indicated that most students found group activities meaningful, although some considered individual activities as neutral (middle of the five levels).

Analysis of Group Improvisation in Classroom. Observations from group improvisation activities in the 2023 winter semester revealed that equal contributions foster collaboration and mutual respect, while one member's dominance can limit others' creativity. Insufficient team coordination leads to unclear narrative progression. These findings highlight the need to balance individual and group activities while exploring alternative methods of enhancing personal creativity and self-expression beyond improvisational activities without props. Based on these findings, the following research question emerges: Should self-dialogue and self-expression be emphasized more explicitly in educational approaches? Recognizing the importance of props, this study introduced puppets to encourage students' independent and individual work abilities.

Puppet Theater Experiment[3]

Research Methodology and Implementation

This study was conducted in four German conversation classes with 41 students at a Japanese music university. Over six sessions in the 2024 winter semester, students participated in puppet theatre activities designed to encourage self-dialogue, turning it into puppet theater videowork.[4] Improvements were observed in vocabulary acquisition, dialogue skills, and creativity.[5] Students individually crafted puppets that represented themselves and created short films lasting at least 90 seconds, using them to express their experiences and emotions. This approach aligns with Rousseau's concept of transformational representation.[6] Expressing personal experiences allowed the students to deepen their self-awareness. Constructing narratives encouraged them to reflect on themselves and society and enhanced their critical thinking. Watching others' stories helped them develop empathy and perspective-taking skills. At the end of the semester, the whole class worked together to create a video puppet show, which was shared on Teams in the same way as the individual

[2] Both surveys passed internal ethical review. Participants who agreed to respond to the questions based on their own free will and agreed to their data being published in academic venues were included.
[3] This research passed the review of the university's ethics committee. In addition, this presentation displays only those videos for which we obtained the students' consent to use in academic conferences and paper presentations.
[4] For various reasons, the number of videos actually submitted was 36.
[5] By referring to German and English texts as a source of inspiration for their doll-making, the students were able to learn not only new vocabulary but also gain insight into how dolls are viewed in different cultures. See Albrecht-Schaffer (2001), Augusburger Puppenkiste (2006), Coad (2007), Lohf (2005), and Smith (2019).
[6] That many of the students in this study voluntarily made stuffed animals is thought to be a significant reflection of the cultural situation in Japan. Among Japanese students, there is a custom of attaching stuffed animals to bags; in fact, this custom is not limited to students, as there is also a custom of giving stuffed animals as gifts to favorite sports players and idols. Kikuchi (2022, pp 90–93) also describes a culture in which Japanese junior high school students use the original coined term "Ikiteru mi" to express the common understanding that stuffed animals have life.

works. Group activities strengthened trust and teamwork, whereas self-expression increased students' motivation and participation in learning.

- **Being (Self-Awareness):** When students expressed their personal experiences, they deepened their understanding.
- **Thinking (Critical Thinking):** As students constructed narratives, they reflected on themselves and society.
- **Relating (Empathy):** Watching the stories of others helped students develop their perspective-taking skills.
- **Collaborating (Communication):** Group activities strengthened trust and teamwork.
- **Acting (Creative Expression):** Engaging in self-expression increased student motivation and learning participation. The students also gained the ability to generate ideas for new experiences of making original puppet videoworks from scripts and the perseverance to complete this task through repeated trial and error.

Analysis of Puppet Theatre Videos Based on Rousseau's Three Forms of Self-Dialogue

Facing Oneself. Rousseau's *The Confessions*[7] and *Reveries of the Solitary Walker*[8] describes introspection as a philosophical practice. In this study, students explored self-reflection through videos by creating personal growth narratives that reflected childhood and personal development. They also represented inner self-praise using puppet dialogues and conveyed their aspirations for the future.

Example 1: Student 1 presented a recording of a musical scale performance that he had performed on stage. The presentation reproduced a scene of him playing 6 octaves on the contrabass, which he plays in his hobby orchestra, in addition to the flute, which he is majoring in. This is not a simple objective reproduction. Nevertheless, by having the puppet perform, he expressed an "inner voice" that praised himself ("I'm amazing!"), which he could not express explicitly on stage.

Figure 1: Inner Voice Expression

[7] An example of a sentence in which Rousseau uses the inner voice that he observes himself as a third person in a dialogical format: "Quand Jean-Jacques s'élève à côté de Corioln, Frédéric sera-t-il au-dessous du général des Volsques?" ("When Jean-Jacques ascends next to Corioln, will Frédéric be ranked below the general of the Volsques?") (Rousseau, 1788/2012, Book twelfth)

[8] As an example, Rousseau continues to refer to himself as "I", but then objectifies himself and calls himself "Jean-Jacques": Ce n'est pas là, sur ma parole, que J.J. ira chercher ses amusemens (It's not there, on my word, that J.J. will seek his amusements). (Rousseau, 1964/2012, The seventh walk)

Facing Others. Rousseau's *Emile* emphasizes the importance of social learning through interpersonal dialogue, which was evident in students' videos. Their work featured conversations between characters with different social roles, depicting mutual understanding across diverse backgrounds. Some students explored past and present friendships or love, while others addressed social issues such as the triangular relationships found among people, nature, and the materials around us. These activities helped the students develop empathy and improve their active listening skills.

Example 2: Student 2 liked to interact with nature through her hobby of mountain climbing. She created a puppet show in dialogue with an old tree that she met on a mountain. In the show, the tree is shown to be working as an SDG activist, and the younger sister is shown to contribute to human society by becoming a violin, as expressed through a question-and-answer session and her emotional expression. This dialogue, which at first glance appears to be a fantasy, reveals, based on her commentary after production, that the trees in the mine-infested forest can be used to make high-quality violins because no humans go into the forest. It also suggests the problem of people being willing to take risks to enter the forest, and the economic activities of nature and humans.

Figure 2: Interaction With Nature, Suggesting Social Issues

Transformational Representation. Rousseau breathed life into his sculpture like an alter ego in *Pygmalion.*[9] From the same perspective, the students incorporated symbols and metaphors into their puppets to convey complex emotions and messages. The videos included symbolic expressions in which objects or animals represented human emotions. Some students crafted narratives that explored the intersection of imagination and reality, whereas others illustrated abstract ideas such as caring for others and connectedness. These creative exercises enhanced the students' abstract thinking abilities and improved their metacognitive skills.

Example 3: Student 3 created a piglet puppet to represent herself and depict her daily routine. The work shows her genuine joy and pleasure when she eats three meals using real food and collapses into bed after returning home exhausted from her piano lessons and language studies at university. Surrealistic expressions, such as the piglet being able to reach university in a single bound, could be said to be a manifestation of her wishes.

[9]Although there is room for interpretation, the unity between Pygmalion (Rousseau) and the sculpture Galathée can be implied in the last scene, "Galathée touches herself and says: Me. Pygmalion transported: Me! Galathée touches herself again: It's me." (Rousseau, 1762/2012)

Figure 3: Daily Life and Genuine Joy and Wishes

Conclusion and Future Directions

Analysis From the Perspective of IDG and Learning Outcomes Based on Rousseau's Framework

From the perspective of IDG, this study found that Rousseau's *The Confessions* and *Reveries of the Solitary Walker* align with the IDG dimension of Being by deepening self-awareness. *Emile* corresponds to Thinking and Relating as it enhances critical thinking and strengthens empathy. *Pygmalion* represents Acting, which encourages creative expression.

Table 1: Relationship Between IDG and Rousseau's Framework

IDG Category	Corresponding Rousseau Concept	Puppet Theatre Connection
Being (Relationship to Self)	*The Confessions, Reveries of the Solitary Walker* (Facing Oneself)	Deepened self-awareness
Thinking (Cognitive Skills)	*Emile* (Facing Others)	Enhanced critical thinking
Relating (Caring for Others and the World)	*Emile* (appreciation of the world)	Strengthened empathy
Collaborating (Social Skills)	—	Improved teamwork
Acting (Enabling Change)	*Pygmalion* (Transformational Representation)	Encouraged creative expression

Future Research Directions

This study demonstrates how self-dialogue fosters sustainable personal growth in education. The students developed a stronger sense of introspection and self-awareness when facing themselves. They improved their ability to empathize and engage in meaningful dialogues by facing others. Their creativity and ability to think abstractly increased through

transformational representation. Future research should focus on adjusting the time allocation for video production, defining clear evaluation criteria for creativity and expression, and integrating IDG into concrete assessment frameworks. Furthermore, alternative methods of self-dialogue should be explored other than puppet shows, such as keeping journals, music, and art, and the practice of philosophical dialogue.[10] More emphasis should be placed on improving the perspective of intercultural communication. This study underscores the significance of self-dialogue in education and suggests that curriculum design should support its long-term effects.

Acknowledgments

This work was supported by JSPS KAKENHI (Grant Number JP24K22744). I also thank Editage (www.editage.jp) for English language editing.

[10] In the practice of philosophical dialogue with others, Kono (2020) views the experience of listening to others and being listened to by others as an experience of externalizing the multiple voices within oneself in the form of "speaking out" and regaining oneself. In this research, the process of collecting these "multiple inner voices" was carried out using handmade dolls as tools or catalysts, and the "dialogue with oneself" format was put into practice. This study provides practical materials for further analyzing the role of dialogue in self-reflection, the potential for using puppets as a tool for self-dialogue, and the functional differences between "dialogue with others" and "dialogue with the self".

References

Albrecht-Schaffer, A. (2001). *Puppentheater mit Kindern* [Puppet theater with children]. München: Don Bosco Medien.

Augusburger Puppenkiste. (2006). *Puppen bauen mit der Augsburger Puppenkiste: Reportagen & Schritt-für-Schritt Workshop. Das Erfolgsthema Augusburger Puppenkiste im Buchformat* [Puppet-making with the Augsburg Puppet Theater: reports and step-by-step workshop. The successful topic of the Augsburg Puppet Theater in book form]. Stuttgart: frechverlag.

Coad, L. (2007). *Marionette sourcebook: Theory & technique*. Garden Bay, B.C.: Charlemagne Press.

Kikuchi, K. (2022). *Ningyo to ningen no aida* [Between a puppet and a human being]. Tokyo: NHK Publishing Inc.

Kono, T. (Ed.) (2020). *Philosophical dialogue for beginners: A philosophical practice manual*. Tokyo: Hitsuji Shobo.

Lohf, S. (2005). Das Finger-Theater-Buch mit dem kleinen Zauberer: Spiel- und Bastelspaß für Kinderhände [The finger theater book with the little magician: fun for children's hands to play with and craft with]. Freiburg im Breisgau: Velber Verlag.

Rousseau, J.-J. (1762/2012). Emile. In R. Trousson, & F. S. Eigeldinger (Eds.), *Oeuvres complètes VI*. Genéve: Éditions Slatkine.

Rousseau, J.-J. (1762/2012). Pygmalion. In R. Trousson, & F. S. Eigeldinger (Eds.), *Oeuvres complètes XVI*. Genéve: Éditions Slatkine.

Rousseau, J.-J. (1782–1788/2012). Les Confessions [The Confessions]. In R. Trousson, & F. S. Eigeldinger (Eds.), *Oeuvres complètes I-II*. Genéve: Éditions Slatkine.

Rousseau, J.-J. (1964/2012). Les rêveries du promeneur solitaire [Reveries of the solitary walker]. In R. Trousson, & F. S. Eigeldinger (Eds.), *Oeuvres complètes III*. Genéve: Éditions Slatkine.

Smith, J. (2019). *Puppetry in theatre and arts education: Head, hands and heart*. London; New York: Methuen Drama.

Storey, B. (2012). Perspectives on political science. *Self-knowledge and Sociability in the Thought of Rousseau*, *41*(3), 146–154.

From Land Acquisition to Nation-Building: Exploring the Jewish Agency's Diverse Actions in Establishing Israel

Haseena Sultan, Zhengzhou University, China
Tajwar Ali, Qilu Institute of Technology, China

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Established in 1929, the Jewish Agency played a crucial role in the development of the Zionist cause and the creation of the present state of Israel. The Agency had a key role in organizing Zionist activities and aiding Jewish immigration to Palestine under British rule. It concentrated on goals such as acquiring property, promoting economic growth, fostering social cohesion, and advocating for Jewish rights diplomatically. This research study explores the multifaceted activities of the Jewish Agency, extending beyond its diplomatic initiatives. The goal is to investigate a wider variety of activities carried out by the Agency, such as land acquisition and the construction of the Israeli state's foundations and assess their influence on Israel's founding. This analysis will use a comprehensive approach, examining various sources such as archives, interviews, and studies to uncover fundamental themes in the Agency's activities – ranging from land acquisition to the construction of social infrastructure. These will be contrasted to previous nation-building initiatives, taking into account the unique context of pre-Israel Palestine. The study will assess the Agency's efficacy and long-term influence on forming the newly established state. The article reveals the diverse role of the Jewish Agency in the establishment of Israel, highlighting its many activities beyond acquiring property. This study highlights the crucial role of the Jewish Agency in the establishment of Israel, going beyond acquiring property to include diverse nation-building activities.

Keywords: Zionism, Jewish Agency, Israel

iafor
The International Academic Forum
www.iafor.org

Introduction

The foundation of the State of Israel is a significant occurrence in contemporary history in 1948, symbolizing the realization of long-held Zionist ambitions and the outcome of complex political, social, and military strategies. Central to this transformational endeavour was the Jewish Agency, an entity that assumed a pivotal role in the process of constructing a country. The agency's diverse range of tasks, which included diplomatic discussions, mobilization of worldwide Jewish communities, and oversight of the significant influx of Jewish immigrants to Palestine, positioned it as a central and influential player in the formation of a Jewish state. This study explores the many and intricate functions of the Jewish Agency, providing insights into its tactics, obstacles, achievements, and significant impact on the establishment of the State of Israel.

The Jewish Agency serves as the operational arm of the World Zionist Organization, a body that was founded in 1929. This phenomenon is often referred to as Aliyah, which facilitates the immigration of Jewish individuals from various regions throughout the globe to the nation of Israel. The organizationn has the distinction of being the largest non-profit entity representing the Jewish community globally and has undertaken significant endeavours throughout its historical trajectory. Prior to 1929, the entity functioned as the Palestine office of the World Zionist Organization. However, subsequent to 1929, it underwent a transformation, assuming a separate and operational role within the broader framework of the World Zionist Organization (Stock, 1972). The Jewish Agency played a pivotal role in the establishment of Israel, facilitating the immigration and resettlement of Jews in the newly formed state in the Middle East. In 1935, David Ben-Gurion, who would later become the first prime minister of Israel, assumed the role of chairman of the Executive Committee of the Jewish Agency. Similar to David Ben-Gurion, many other notable leaders of Israel also served in this capacity prior to the establishment of the State of Israel. The agency facilitated the integration of the immigrants into Israel by organizing their accommodations in urban areas and rural regions. The Jewish Agency began the facilitation of Jewish immigration from various regions throughout the globe during the era of the Ottoman Empire in 1908. Prior to 1929, the Jewish Agency served as the official body for Jews but subsequently transitioned to representing the State of Israel inside Ottoman Palestine (LASKIER, 1985).

This study is of vital value because it sheds light on the many different activities that the Jewish Agency was involved in during the formation of Israel. This study offers unique insights into the complex historical, political, and socio-economic dynamics that surrounded the founding of the State of Israel. These insights are provided by diving into the complicated procedures of land acquisition and nation-building operations that were carried out by the Jewish Agency. It sheds light on the essential role that the Jewish Agency played in the acquisition of property, the facilitation of immigration, the promotion of community development, and the establishment of the foundation for the formation of a unified national identity. Not only does the article add to a more in-depth knowledge of the historical backdrop of Israel's foundation, but it also provides vital lessons for comprehending the obstacles and methods involved in nation-building attempts across the globe. This is accomplished via the study's detailed examination.

Research Methods

This study will be predicated on descriptive and analytical research that draws inferences mostly from research that takes a qualitative approach but also includes some findings from

research that takes a quantitative approach. Both primary and secondary sources of information will be used throughout the course of this investigation. In this regard, primary data will be gleaned from the first-hand accounts of individuals who are important to the study, including academics, policymakers, and researchers. In addition, the study will make use of a method known as purpose sampling to obtain Primary Data by conducting interviews that are only partially organized. Books, research papers, magazine articles, newspaper articles, on-line sources, and book reviews are examples of secondary data. Reference materials will mostly be drawn from on-line publications that may be found in digital libraries. This research will make use of newspapers, periodicals, and the views of professionals who have access to these types of materials.

In addition, the reports that were compiled by a variety of governmental and non-governmental organizations, non-governmental organizations (NGOs), and the Jewish Agency itself will be re-examined from a critical standpoint in order to acquire a deeper comprehension of the Jewish Agency's past and its present situation. If you are looking for a compilation of historical data pertaining to Jewish Agency, the best place to go is the official website of Jewish Agency. Data was acquired from a variety of sources, and historical archives held by the government of Israel will be accessible in order to conduct a logical analysis about the historical events that occurred during the time of the Jewish Agency.

The Early Years of the Jewish Agency

The early years of the Jewish Agency for Palestine were a pivotal period in the building of a Jewish homeland in Palestine, which ultimately led to the founding of the State of Israel. The Jewish Agency was founded in 1929 with the assistance of several Jewish organizations and after extensive talks with Jewish Zionist leadership. The goal of this organization is to foster cooperation among Jewish people worldwide and, in coordination with British mission authorities, to advocate for a separate homeland for Jews worldwide in the area of Palestine. The British government accorded this recognition in Article 4 of the accepted mandate in 1922, at the request of the World Zionist Organization (Parzen, 1977).

The World Zionist Organizations, led by President Dr. Weizmann, was an organized Jewish organization. The WZO's goal is to construct a Jewish state in Palestine; however, they needed a structured institution to collect donations from Jewish people all over the globe, something the World Zionist Organization was unable to achieve. This recommendation came from U.S. Supreme Court Justice Louis D. Brandeis, who also advised President Weizmann to include non-Zionist in this fund-raising expedition in order to create a bigger organizational structure. As a result, WZO needs an organization to handle the huge problem of raising finances. The plan aimed to move above the Zionist community's budgetary limits. During this time, Weizmann not only talked with possible partners, but also worked to reassure Zionist members that this unique approach would not result in non-Zionist leadership of the organization (Documents, 1947).

Weizmann's goal for an enlarged Jewish Agency was realized in a fundamental conference in Zurich in August 1929, after receiving approval from the Zionist Congress, the WZO's governing body. According to one participant, this was the most important Jewish gathering in many centuries. Speaking for the non-Zionist side in meetings with Weizmann, Louis Marshall portrayed the gathering as representing the worldwide Jewish community. With luminaries like Albert Einstein, Léon Blum, Lord Samuel, and Shalom Asch in attendance with enthusiastic support, the possibilities for this new organization were promising. This Zurich assembly was

essentially a full session of the Jewish Agency's council, with 224 members evenly divided between Zionists and non-Zionists. This balanced philosophy was also reflected in the formation of smaller administrative and executive committees in charge of the Agency's day-to-day operations (Stock, 1972).

During the period from 1929 to 1939, the Zionist organization achieved significant advancements. The notion of establishing a Jewish state in Eretz Israel, which was once seen as an aspirational vision during the 1920s, began to become more feasible during the 1930s. The current decade has seen noteworthy achievements, with the emergence of substantial challenges. Indications at the outset of the year suggested forthcoming changes. The establishment of the Jewish Agency took place in August 1929, with the primary objective of fostering unity between Zionists and non-Zionists in order to strengthen the Jewish Yishuv in Palestine. The prevailing sentiment was one of optimism, with indications that conditions were favorable for the pursuit of ambitious undertakings. However, in a few of days, the 1929 Arab uprisings began, raising concerns over the prospective development of Eretz Israel. The British populace started to scrutinize the obligations outlined in the Balfour Declaration. Furthermore, a period of economic decline that started in the United States shortly afterwards gradually worsened over time, impeding the flow of financial resources from American-Jewish sources to aid in the establishment of Yishuv (Stein, 1923).

Throughout these extraordinary years, the Zionist organization made steady development. The aliya movement had a notable increase in activity during the period after 1932, particularly between 1933 and 1935, as a result of the growth of the Jewish Agency in Eretz Israel. As a result, the Jewish Yishuv in Eretz Israel underwent a significant transformation, evolving from a marginalized minority to comprising approximately one-third of the population. This demographic shift indicated the possibility of establishing a fully-fledged Jewish state in Palestine, characterized by a thriving economy and an enlarged social framework. Nevertheless, the expansion of the Yishuv faced opposition from Palestinian Arabs who actively sought to impede its progress. The resistance gradually intensified, culminating in a series of violent incidents spanning from 1936 to 1939, ultimately resulting in widespread riots and the emergence of an Arab Rebellion. In light of the unpredictable conditions, the British mandate authorities encountered a dilemma, exhibiting hesitancy in endorsing the Zionist movement and finally rejecting the notion of establishing a Jewish nation. The publication of the 1939 White Paper highlighted the concerns of the British government, leading to a deterioration of relations between the British authorities and the Jewish community at the conclusion of the 1930s. In light of the prevailing conditions, the Jewish Agency deemed it necessary to directly engage with the British authorities. During the tenure of chairman David Ben-Gurion, a significant shift occurred in the ideological orientation of the Zionist movement, transitioning from a focus on "political Zionism" to an emphasis on "militant Zionism (Marshall, 1923).

During the latter part of the 1920s, the World Zionist Organization (WZO) encountered a significant obstacle. The Zionist movement saw the emergence of two predominant factions: the Revisionist party, which espoused right-leaning ideologies, and the Labor party, which leaned towards left-leaning principles. Ze'ev Jabotinsky had a prominent role in leading the Revisionist party, which stood in opposition to Dr. Chaim Weizmann and his side. The 1931 and 1933 Zionist congresses saw a culmination of tensions, as the Revisionists engaged in conflicts with the leadership of the World Zionist Organization (WZO). The culmination of this dispute resulted in the establishment of the New Zionist Organization (NZO) in the year 1935 (Fraser, 2009).

As the head of the Jewish Agency and the Zionist Executive in the 1930s, Ben-Gurion changed institutions and brought about important advances. His goal was to convert the current establishment into the provisional administration of a future state. Thus, it was not surprising that, after Israel's founding, he and well-known allies like Moshe (Shertok) Sharett, the director of the Political Department, and Eliezer Kaplan, the head of the Finance Department, were appointed to positions of high government authority. Ben-Gurion eventually rose to the position of prime minister, and Moshe Sharett oversaw foreign policy.

During the same time frame, German and European Jewish communities confronted the assertive position adopted by the Nazi Party. In Germany, Jews were subjected to severe persecution and widespread violence during the regime of Adolf Hitler, resulting in many fatalities. A similar situation occurred across Europe, but with a less magnitude. With a fervent opposition against Jewish individuals. As a result, a significant number of German Jews, first numbering in the thousands and subsequently increasing rapidly, attempted to find sanctuary in other locations. Nevertheless, the majority of countries opted to close their borders, resulting in only Palestine and its Jewish Yishuv community extending a warm reception to the displaced individuals. In spite of the British government's active facilitation of the substantial migration of Jews to Palestine, they encountered the growing Arab animosity against this endeavour. The intensification of Arab hostility prompted the British to reduce their support for the Jewish population. The imposition of this constraint resulted in the emergence of unauthorized Jewish migration, often referred to as "ha'apala," towards Palestine. Throughout the course of history, the Zionist leadership consistently adopted a cooperative approach in their interactions with the British authorities, all the while striving for the recognition and protection of Jewish rights. The primary objective of the British Mandate authorities was to mitigate Arab animosity, notwithstanding the ongoing internal disputes among the Jewish population in Eretz Israel (Fraser, 2009).

A royal commission led by Lord Peel was sent by the British to Palestine in 1936 as a response to an Arab wave of violence against the Jewish Yishu. The Peel Commission recommended splitting Palestine into two states. A tiny Jewish state is required in the Galilee, the northern valleys, and the coastal plain; an Arab state is required in the remaining portion of the nation. In Jaffa, Jerusalem, and all points in between where a British "Corridor" for British mandate officers has to be built. The idea for a royal commission was turned down by the Arabs.

Building the Foundations of the State of Israel

The Jewish Agency for Israel played a pivotal role in establishing the necessary foundations for the creation of the State of Israel. Established in 1929 as the operational branch of the World Zionist Organization, this organization served as the representative body for the Jewish people residing in Palestine. The main goal of the Jewish Agency was to promote Jewish immigration to Palestine, as it was seen as a crucial factor in attaining a Jewish demographic majority within the region. In order to provide aid to incoming individuals, the Agency implemented supporting infrastructures and established new settlements in previously undeveloped areas, leading to the establishment of urban centres like as Tel Aviv and the expansion of pre-existing ones, notably Jerusalem. In addition to the establishment of settlements, the Jewish Agency had the task of creating essential state institutions, including legal and hospital systems, as well as education. It provided financial support to a range of institutions, including universities and centres of cultural significance. Additionally, the Agency was instrumental in the establishment of a comprehensive national defense force. One of its noteworthy achievements was its significant role in the negotiations leading to the establishment of the State of Israel in 1948 (Elazar, 2012).

The United Nations proposed a strategic plan to partition the region of Palestine into separate areas for Jewish and Arab populations. The Jewish Agency had the responsibility of mobilizing international support for this proposition. Subsequently, the proposition of partition was endorsed by the United Nations General Assembly, culminating in the establishment of the State of Israel in May 1948. The Jewish Agency played a crucial role in establishing the foundation for the State of Israel, providing guidance, coordination, and support for the establishment of a Jewish homeland and the development of a fully functioning nation. The diligent endeavours of the Jewish Agency had fruitful outcomes, leading to the emergence of Israel as a thriving democratic state (Penkower, 1983).

The Jewish Brigade was established during the period of World War II, under the supervision of the British Army and with the support of the Jewish Agency for Israel. The battalion consisted of Jewish troops hailing from Palestine, Europe, and the United States, who made noteworthy contributions to the Allied cause. The establishment of the Brigade was significantly influenced by David Ben-Gurion, who held the leadership position within the Jewish Agency at that time. The individual expressed strong support for the establishment of a Jewish fighting unit and made a formal appeal to the British government to allow Jewish individuals to actively participate in the conflict (Bunyan, 2015).

The 1947 UN Partition Plan and the 1948 War

The 1947 United Nations Partition Plan and the 1948 War were pivotal occurrences in the historical narrative of the State of Israel and Palestine. The United Nations Partition Plan, which was adopted in November 1947, proposed the partitioning of Palestine into two distinct states namely, a Jewish state and an Arab state. The Jewish Agency for Israel expressed acceptance of the idea, whilst the Arab Higher Committee voiced its rejection, contending that the proposal contravened the concept of self-determination. The implementation of the partition plan in Palestine incited a surge of violence, as Jewish and Arab groups engaged in conflicts about the prospective trajectory of the territory. The termination of the British Mandate over Palestine occurred in May 1948, coinciding with the proclamation made by the Jewish leadership announcing the foundation of the State of Israel. Subsequent to this action, a conflict ensued between the Arab nations, including Egypt, Jordan, Syria, and Iraq, who expressed opposition to the formation of a Jewish nation inside the region of Palestine (Falah, 1996).

The 1948 War, sometimes referred to as the Israeli War of Independence, was a varied and intricate battle that included several military, political, and social dimensions. The conflict lasted for a duration exceeding one year and led to considerable displacement and hardship experienced by both Jewish and Palestinian populations. The struggle had a significant effect on the area, leading to the formation of political and social forces that persistently define the Israeli-Palestinian conflict in contemporary times. The historical, political, and social issues have contributed to the formulation of the UN Partition Plan and the subsequent outbreak of the 1948 War. The aforementioned events, including the viewpoints and lived experiences of both Jewish and Arab groups residing in Palestine. The United Nations Secretariat personnel started the process of acquiring information and experience on the matter of Palestine as early as February 1947, promptly after the British government's declaration to transfer the Palestine issue to the United Nations (Pathak, 1951).
A five-member panel was established by the Secretariat, led by Trygve Lie and supervised by Arkady Sobolev, the Russian Assistant Secretary General for Security Council Affairs, with

the purpose of examining the Palestine matter. The aforementioned group collected a substantial quantity of material, which was afterwards preserved in a specialized library under the auspices of the United Nations. Furthermore, they generated five complete volumes as a result of their efforts. The British mandate period is characterized by the provision of comprehensive statistical data and the proposal of viable remedies. The books in question were subsequently used by the United Nations Special Committee on Palestine (UNSCOP) as a point of reference during their examination of the Palestine problem in the summer of 1947 (Bennis, 1997).

Ralph Bunche, an American UN representative, was the team's most important member, serving as the Secretary General's personal delegate with the UNSCOP secretariat. Several other UN specialists collaborated with UNSCOP, acquiring substantial subject-matter expertise. Among the contributors were the Greek legal theorist Constantin Stavropoulos, the South African economist John Reedman, the Frenchman Henri Vigier, and the Mexican Alfonso Garcia Robles. After the General Assembly approved the partition plan on November 29, demand for this team's insights increased. Trygve Lie appointed Ralph Bunche to supervise the Palestine Commission's Secretariat on December 4, 1947, and permitted him to select its personnel. This resulted in the addition of Secretariat members who had previously been involved with the Palestine issue (Flapan, 1987).

Diplomacy and State Building

The establishment of the State of Israel was heavily reliant on the Jewish Agency's strategic use of diplomacy and state building as integral elements. The Jewish Agency, functioning as the executive entity of the World Zionist Organization, assumed the responsibility of organizing Zionist endeavours inside Palestine and advocating for the creation of a Jewish nation-state. The use of diplomatic strategies played a pivotal and essential function in the endeavours of the Jewish Agency to get worldwide acknowledgement for the establishment of the State of Israel. The representatives of the Agency exerted significant efforts in order to advance the credibility of the newly established state and engage in advocacy with states and international organisations to get recognition. The diplomatic endeavours undertaken by the Jewish Agency had favourable results, as the United States promptly acknowledged the establishment of the State of Israel within hours subsequent to its declaration of independence on May 14, 1948 (Druks, 1981).

The Jewish Agency, with its diplomatic endeavours, assumed a pivotal part in the process of state formation during the first years of the State of Israel. The establishment of a Jewish government-in-waiting by the Agency played a crucial role in providing political leadership and administration during the war and subsequent state-building phase. Under the leadership of David Ben-Gurion, the prospective government diligently endeavoured to construct the necessary institutions for the nascent state and sought to acquire recognition from the global world. The Jewish Agency played a pivotal role in the establishment of the economic and social infrastructure of the nascent state. The Agency was responsible for the establishment of many enterprises and sectors, including agriculture, industry, and tourism. Additionally, it actively endeavoured to facilitate Jewish immigration to Palestine. The Jewish Agency played a crucial role in bolstering the economic and social capabilities of the nascent state, so ensuring its viability and fostering its development throughout its formative years (Brown, 1948).

Challenges and Controversies

The inception and endurance of the State of Israel were characterized by a multitude of problems and debates. The Jewish Agency, functioning as the executive arm of the World Zionist Organization, assumed the task of organizing Zionist endeavours in Palestine and advocating for the creation of a Jewish nation-state. In its pursuit, it encountered a multitude of intricate obstacles that need careful navigation. One of the primary obstacles encountered by the Jewish Agency was the Arab-Israeli conflict, which ensued shortly after the foundation of the State of Israel. The Arab-Israeli conflict presented a substantial danger to the viability of the nascent state, while also serving as a catalyst for persistent tensions and instability within the area. The Jewish Agency encountered significant controversy and hostility from several international entities, including as Arab nations, the United Nations, and the broader international community. Numerous foreign entities expressed opposition towards the construction of a Jewish state in Palestine, seeing the endeavours of the Jewish Agency as lacking legitimacy and contravening principles of international law (Hartman, 1987).

Furthermore, with the aforementioned external problems and conflicts, the Jewish Agency had internal challenges pertaining to political and social differences within the Zionist movement. The Zionist movement was characterized by a variety of intellectual and political divergences, and these conflicts often manifested inside the Jewish Agency itself. Notwithstanding the aforementioned problems and controversies, the Jewish Agency persevered with unwavering dedication in its endeavours to build and sustain the State of Israel. The Agency had a pivotal role in establishing the political, economic, and social frameworks of the nascent state, while also actively seeking recognition and assistance from the global community (Gross, 1990).

The Jewish Agency encountered criticism from factions within the Zionist movement, namely from organizations that held divergent political and intellectual stances vis-à-vis the agency. Certain individuals within the Zionist movement held the viewpoint that the Jewish Agency had a tendency towards conservatism and excessive willingness to engage in compromises with British and Arab authority. There were differing perspectives among those who held the view that the agency's priorities were excessively centred on the creation of a Jewish state specifically in Palestine, therefore neglecting the pursuit of larger Zionist objectives, including the formation of a Jewish homeland in alternative geographical regions (Cooper, 2015).

Conclusion

In conclusion, the founding of the State of Israel in 1948 is a significant event in the history of the modern era. It is a momentous event because it marks the completion of Zionist ideals as well as the culmination of sophisticated political, social, and military operations. The Jewish Agency, which fulfilled a pivotal and vital function in the process of nation-building, was the driving force behind this initiative that was intended to bring about a transformation. As a result of the Agency's complex responsibilities, which included the supervision of mass immigration to Palestine, the orchestration of diplomatic discussions, and the mobilization of Jewish communities all over the world, the Agency became an essential architect of the Jewish state. The findings of this research have thrown light on the many activities of the Jewish Agency, providing insights into its tactics, obstacles, successes, and the enormous influence it had on the formation of the State of Israel. From its beginnings as the Palestine office of the World Zionist Organization to its restructuring into four core divisions, the Agency has developed throughout time in order to accommodate the ever-changing requirements of the Jewish community and the emerging state. Over the course of many decades, it played a vital role in facilitating the immigration and resettlement of millions of Jews from a wide range of backgrounds, including survivors of the Holocaust and Jews from Ethiopia.

References

Bennis, P. (1997). The United Nations and Palestine: Partition And Its Aftermath. *Arab Studies Quarterly*, *19*(3), 47–76. http://www.jstor.org/Stable/41858997

Brown, P. M. (1948). The Recognition of Israel. *The American Journal of International Law*, *42*(3), 620–627. https://doi.org/10.2307/2193961

Bunyan, J. (2015). To What Extent did the Jewish Brigade Contribute to the Establishment of the Jewish State. *Middle Eastern Studies*, *51*(1), 28–48. http://www.jstor.org/stable/24585577

Cooper, J. E. (2015). A Diasporic Critique of Diasporism: The Question of Jewish Political Agency. *Political Theory*, *43*(1), 80–110. http://www.jstor.org/stable/24571595

Documents, B. O. (1947). *The Jewish Agency for Palestine (BD).* New York: pp 39-49.

Druks, H. (1981). Harry S Truman and the Recognition of Israel. *Journal of Thought*, *16*(4), 15–28. http://www.jstor.org/stable/42588933

Elazar, D. J. (2012). The Jewish Agency: Historic Role and Current Crisis. *Jerusalem Center for Public Affairs*, https://www.jcpa.org/dje/articles/ja-role.htm

Falah, G. (1996). The 1948 Israeli-Palestinian War and Its Aftermath: The Transformation and De-Signification of Palestine's Cultural Landscape. *Annals of the Association of American Geographers*, *86*(2), 256–85. http://www.jstor.org/stable

Flapan, S. (1987). The Palestinian Exodus Of 1948. *Journal Of Palestine Studies*, *16*(4), 3–26. https://doi.org/10.2307/2536718

Fraser, T. G. (2009). Chaim Weizmann. *Haus Publishing*. http://www.jstor.org/stable/j.ctt1hhfngd

Gross, N. T. (1990). Israeli Economic Policies, 1948-1951: Problems of Evaluation. *The Journal of Economic History*, 67–83. http://www.jstor.org/stable/2123438

Hartman, D. (1987). The Challenge of Modern Israel to Traditional Judaism. *Modern Judaism*, *7*(3), 229–52. http://www.jstor.org/stable/1396420

Laskier, M. M. (1985). *The Jewish Agency and the Jews of Morocco and Tunisia.* http://www.jstor.org/stable/23529413

Marshall, L. (1923). Uphold the Hands of Weizmann. *NP*, *1*(16), 200-201.

Parzen, H. (1977). The Enlargement of the Jewish Agency for Palestine: 1923-1929 a Hope: Hamstrung". *Jewish Social Studies,* 34-56.

Pathak, D. N. (1951). The United Nations And Palestine. *The Indian Journal Of Political Science*, *12*(4), 99–107. http://www.jstor.org/stable/42743312

Penkower, M. (1983). The Struggle for an Allied Jewish Fighting Force During World War II. In: Braham, R.L. (eds) *Contemporary Views on the Holocaust'*. Holocaust Studies Series, Springer, Dordrecht, https://doi.org/10.1007/978-94-009-6681-9_3

Stein, L. (1923). *The Jewish Agency.* pp 168-69.

Stock, E. (1972). The Reconstitution of the Jewish Agency: A Political Analysis. *The American Jewish Year Book, 73*, 178-193.

Contact emails: hasina_sultan@yahoo.com
tajooformanite@yahoo.com

The Emergence and Influence of Early European Opera: A Historical and Analytical Study

Yan Jiajun, Raffles Music College, Singapore

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Opera, a distinctive art form that integrates music, drama, and visual spectacle, emerged in late 16th-century Italy and rapidly became a dominant cultural force throughout Europe. This study examines the socio-political, economic, and artistic factors that facilitated the creation and development of opera. By focusing on the Florentine Camerata's contributions, the commercialization of opera in Venice, and the rise of the prima donna as a cultural icon, the paper explores the genre's profound influence on European society. Through case studies of key operas such as L'Orfeo by Monteverdi, Giasone by Cavalli, and Giulio Cesare by Handel, this paper demonstrates how early opera not only reflected but also shaped the cultural and social dimensions of its time. The analysis highlights opera's enduring legacy and its impact on subsequent musical and theatrical traditions.

Keywords: Opera, Renaissance, Baroque Music, Florentine Camerata, Venetian Opera, Prima Donna

iafor
The International Academic Forum
www.iafor.org

Introduction

Opera emerged during the late Renaissance as a groundbreaking cultural innovation, blending music, drama, and visual spectacle into a unified art form. Originating in late 16th-century Italy, it expanded rapidly across Europe, becoming an essential medium for artistic and cultural expression. Opera's ability to combine narrative, emotion, and performance made it a uniquely influential tool for shaping the socio-political and economic landscapes of early modern Europe. The genre's development was significantly influenced by the intellectual currents of the Renaissance, particularly the revival of classical antiquity and humanism. This paper investigates the factors that led to the rise of opera, examining its creation, commercialization, and cultural importance.

The Birth of Opera in Italy

The Florentine Camerata and Early Experiments

The Florentine Camerata, a group of Renaissance intellectuals, sought to revive the dramatic and musical practices of ancient Greece. Composed of notable figures such as Vincenzo Galilei, Giulio Caccini, and Jacopo Peri, the Camerata pioneered a new style of composition that emphasized emotional expression through clarity of text. This experimentation led to the creation of *Dafne* (1598) and *Euridice* (1600), often regarded as the first operas (Carter, 1992). Their monodic style marked a significant departure from the polyphonic madrigals of the Renaissance, offering a more direct, emotional connection to the audience (Palisca, 1968).

Patronage and Court Culture

Opera's early growth was closely tied to aristocratic patronage, particularly within Italy's courts. The Medici family in Florence played a key role by commissioning operas for state occasions, using opera as a form of political and artistic propaganda (Fabris, 2013). These early works often employed mythological themes to communicate allegorical messages that mirrored Renaissance societal hierarchies.

Venice: The Commercialization of Opera

Public Opera Houses and Economic Transformation

In the early 17th century, Venice witnessed the establishment of public opera houses, such as the Teatro San Cassiano in 1637, which marked the commercialization of opera. By introducing a ticketed system, opera became accessible to a broader audience, shifting from an aristocratic pursuit to a public entertainment form (Rosand, 2007). Venice's vibrant commercial environment, bolstered by trade, created a fertile ground for public cultural endeavors, with opera houses becoming cultural landmarks for the wealthy merchant class (Gerbino & Fenlon, 2006).

Artistic Innovations and Audience Engagement

Venetian opera was known for its elaborate stage designs, which included innovative machinery and lighting effects that enhanced the spectacle for audiences. Composers like Francesco Cavalli and Antonio Cesti introduced new musical styles, blending dramatic narrative with musical variety to appeal to a wide range of tastes (Parker, 2001). This period

also witnessed the rise of distinct operatic forms, such as *opera seria* and *opera buffa*, which catered to different segments of the population.

The Role of Performers in Shaping Opera

The Prima Donna as Cultural Icon

The rise of the prima donna marked a significant shift in the role of performers within opera. Singers like Anna Renzi, renowned for their vocal and dramatic skill, elevated the status of performers and set new standards for operatic expression. Renzi's performance in *La finta pazza* (1641) highlighted her powerful presence on stage, reflecting the growing importance of individual performers within the genre (Rosselli, 1995).

Celebrity Culture and Commercial Appeal

By the late 17th century, opera became a venue for celebrity culture. Rivalries between star performers, such as Faustina Bordoni and Francesca Cuzzoni, drew public attention and increased ticket sales. These performers not only shaped the artistic trajectory of opera but also influenced broader cultural trends, including fashion and literature (Fabris, 2013).

Case Studies

Monteverdi's "L'Orfeo"

L'Orfeo (1607), composed by Claudio Monteverdi, is considered the first great masterpiece of opera. It is notable for its blend of innovative orchestration and dramatic storytelling. Monteverdi's masterful use of recitative and aria to convey emotional depth set a high standard for subsequent operatic compositions (Carter, 1992).

Cavalli's "Giasone"

Francesco Cavalli's *Giasone* (1649) represents the commercialization of Venetian opera. Its combination of humor and pathos made it widely appealing to a diverse audience, demonstrating how Venetian opera adapted to the demands of its commercial environment (Rosand, 2007).

Handel's "Giulio Cesare"

Giulio Cesare (1724) by George Frideric Handel illustrates the internationalization of opera in the 18th century. The opera's intricate character portrayals and dramatic arias, such as Cleopatra's "Piangerò la sorte mia," exemplify Handel's ability to combine musical innovation with emotional resonance (Fabris, 2013).

Conclusion

The emergence of early European opera was driven by a complex interplay of cultural, political, and economic factors. From its origins in the courtly settings of Florence to its commercial flourishing in Venice, opera became an integral part of European cultural identity. Its ability to combine music, drama, and visual elements allowed opera to remain a relevant and influential form of artistic expression throughout the centuries.

Acknowledgements

The author thanks IAFOR and The IAFOR International Conference on Arts & Humanities in Hawaii (IICAH) for supporting this research. The author also acknowledges the valuable feedback and encouragement provided by colleagues and mentors throughout the writing process.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

No generative AI or AI-assisted technologies were used in the creation of this paper.

References

Carter, T. (1992). *Music in Late Renaissance and Early Baroque Italy*. Academia.edu.

Fabris, D. (2013). Reviving early opera: The past as progress. *Early Music, 41*(1), 33–49.

Fawcett-Lothson, A. (2009). The Florentine Camerata and their influence on the beginnings of opera. *IU South Bend Undergraduate Research Journal*.

Gerbino, G., & Fenlon, I. (2006). *Early opera: The initial phase*. Cambridge University Press.

Kirkendale, W. (2003). The myth of the "birth of opera" in the Florentine Camerata. *The Opera Quarterly*.

Muller, F., & Muller, J. (2005). Completing the picture: The importance of reconstructing early opera. *Early Music, 33*(4), 667–689.

Palisca, C. V. (1968). *Baroque music*. Prentice Hall.

Parker, R. (2001). *The Oxford illustrated history of opera*. Oxford University Press.

Rosand, E. (2007). *Opera in seventeenth-century Venice: The creation of a genre*. University of California Press.

Rosselli, J. (1995). *Singers of Italian opera: The history of a profession*. Cambridge University Press.

Contact email: 1596646993@qq.com

Examining Smallholder Farmers' Perceptions of Irrigation Access in the Volta Region, Ghana

Michael Kossivi Tamekloe, University of Tsukuba, Japan

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Past studies that emphasized the importance of irrigation access for smallholder farmers focused on different sets of factors for irrigation adoption. Some emphasized cultural norms, local practices, and personal experiences. Some others examined geographical locations, farm size, access to water sources, and socio-economic status. This study attempted to find what factors above or others actually influence smallholder farmers' perceptions of irrigation access and needs. A structured questionnaire survey was randomly administered among 282 smallholder farmers in South and North Tongu districts of Ghana from January to February 2024. The data were analyzed using SPSS and Excel. It was found that among 94% of the respondents who needed to irrigate their farms, 68% could not because of water scarcity. About 93% found that the cost of connecting irrigation ditches to their farms was inhibiting. Another cost-related factor was energy/electricity for pumping water (89%) and maintenance (89%). About 55% blamed neighboring farmlands for blocking canal routes to their farms. Some neighbors diverted more water than their fair share, causing shortages for those downstream. Others blamed a lack of irrigation water access on start-up capital (95%), technical support (44%), and infrastructure (74%).

Keywords: Smallholder Farmers, Irrigation Access, Perceptions, Ghana

iafor
The International Academic Forum
www.iafor.org

Introduction

Smallholder farmers in Sub-Saharan Africa perceive irrigation access as involving more than physical infrastructure for irrigation water access (Burney et al., 2013). Their perception of irrigation is based on education level and how much exposure they have with irrigation. Nguyen and colleagues (2016) determined that farmers' perception of irrigation access was influenced by cultural norms and socio-economic conditions. Other studies found that farmers' views of irrigation access were influenced by the topography of the area, level of socio-economic development, and local farming practices (Chuchird et al., 2017; Udmale et al., 2014).

In Ghana, smallholder farmers' perception of irrigation access significantly depends on the geographical location of their farms, proximity to water sources, and rainfall amount (Akrofi et al., 2019; Limantol et al., 2016). Some farmers perceived that to have access to irrigation, their farms must be located near water sources (Ayamga et al., 2016; Dakpalah et al., 2018). Past studies have shown that farms were not close enough to water sources (Agodzo et al., 2023; Atiah et al., 2019), and this situation negatively influenced farmers' perceptions of irrigation access (Kyei-Baffour & Ofori, 2006). In the drier and semi-arid environments in Ghana's Northern, Upper East, and Upper West regions, farmers tend to view irrigation access as an essential tool for their production (Sekyi-Annan et al., 2018). Similarly, Akudugu and colleagues (2021) found that those farmers who lived in areas with inconsistent rainfalls tended to have a more positive perception of irrigation access. These farmers believed that they could rely on irrigation to mitigate the effects of climate change on their farms and to improve yields (Ankrah, 2024; Fagariba et al., 2018).

Some irrigation projects and initiatives were made available to farmers by the Ghanaian government and international agencies like JICA to support farming (Nalumu et al., 2021; Woodhouse et al., 2017). However, not every region, district, or community had benefited equally from these irrigation initiatives (Dziwornu et al., 2024; Namara et al., 2011). Farmers who had access to these irrigation projects had more positive perceptions of irrigation due to their firsthand experience with the benefits (Zakaria et al., 2020). On the contrary, in those regions where irrigation projects are not available, farmers are less likely to prioritize irrigation access (Boateng et al., 2024). These farmers do not seem to fully appreciate irrigation benefits because traditional rain-fed agriculture is dominant in the area and requires no irrigation expenses (Dakurah et al., 2024). Therefore, with rain-fed farming practices, these farmers experienced insufficient water access, which resulted in low productivity and yields (Assan et al., 2020; Balana et al., 2020).

Past studies on smallholder farmers' irrigation activities demonstrate that income levels, access to credit, and education influenced their perceptions of irrigation access (Derkyi et al., 2018; Kudadze et al., 2019). A study conducted by Castillo and colleagues (2021) in Maule and O'Higgins regions of Chile found that farmers with more financial resources, education, and knowledge about modern irrigation technologies had a more positive view of irrigation access. Other studies also found that farmers saw irrigation as expensive and difficult (Fagariba et al., 2018; Kyei-Baffour & Ofori, 2006; Nalumu et al., 2021). Asiedu and Gross (2017) found in Northern Ghana that farmers tended to perceive that irrigation was only for the wealthy and the privileged in society. On the contrary, some studies showed that farmers with limited financial resources and knowledge perceived irrigation as less accessible or non-beneficial and were skeptical about irrigation access (Lefore et al., 2019; Ndamani & Watanabe, 2015). These factors seem to be convincing to some extent regarding farmers' perceptions of irrigation access. In the Volta region, where this study is situated, previous studies examined farmers'

irrigation infrastructure and water management constraints. However, there are limited studies on the perceptions of farmers who are directly affected by a lack of irrigation facilities on their farms. In order to bridge this gap and meet farmers' needs, it is important to understand how these farmers perceive access to irrigation. Therefore, this study aims to examine smallholder farmers' perceptions of irrigation access in Ghana's South and North Tongu districts. The findings of this study will help stakeholders and policy to integrate farmers' perspectives into irrigation development programs and improve infrastructure and water management practices.

Methodology

Study Location

This study was carried out in South and North Tongu districts of Ghana's Volta Region (Figure 1). The Volta region has 18 administrative districts in operation. According to the Ghana Statistical Service (2021), the Volta region's total population is approximately 1,659,040 individuals, accounting for 5.4% of the national population of 30,832,019 people. Of this total, 790,685 were men. South Tongu District had 113,114 inhabitants, accounting for 6.8% of the Volta region's total population of 1,659,040. Males make up approximately 52,488 (46.2%) of the total population of South Tongu district, while females make up 60,626 (53.6%). The North Tongu District had a population of 110,891, which accounted for 6.7% of the Volta population. Males make up around 52,996 (48%) of the total population of North Tongu district, while females make up 57,895 (52%). A population of 68.9% and 56% in the South and North Tongu districts, respectively, live in rural areas and rely heavily on agriculture for a living. Both districts have household sizes of four people apiece. The selected communities in South Tongu for this study had a farmer population of approximately 1484 farmers, whereas those communities chosen in North Tongu had 1860 farmers (Ghana Statistical Service, 2021).

South Tongu District has a total land area of 665 km^2, which accounts for 7% of the Volta region's size (9,504 km^2). South Tongu sits 75 meters above sea level. However, North Tongu District has a total land area of 1,154 km^2, which is 12% of the size of the Volta region. North Tongu District is situated at a slightly higher elevation of 85 meters above sea level compared to South Tongu. Despite the differences in size and elevation, both districts share a border with the Volta River, providing important water resources for the region. The diverse landscapes of both districts, including fertile farmland and lush forests, which contribute to the overall beauty and natural resources of the Volta region (Ghana Statistical Service, 2014).

Farmers in the South and North Tongu Districts rely primarily on agriculture for their livelihoods. The sector contributes significantly to both districts' efforts to improve food security, alleviate poverty, and create jobs. However, low productivity and yields have reduced the sector's contribution to Ghana's GDP. This is frequently ascribed to insufficient investment in irrigation facilities and land tenure insecurities. Agriculture output is often small-scale in the selected localities. Farmers rely more on traditional rain-fed farming, which frequently produces low yields. The smaller farm sizes, high costs of land, fragmentation of lands, and ownership agreements often influence farmers' perception of irrigation. Farmers in the selected communities lack suitable irrigation infrastructure, such as streams and well-developed canal systems (Ghana Statistical Service, 2014).
These two districts are situated in the Coastal Savannah Vegetation Zone. They both have swampy areas that are conducive to agricultural cultivation (Amponsah et al., 2018; Koku, 2001). The Southwest Monsoon Wind creates a distinct climate pattern for these districts. This occurs twice a year and frequently results in a two-fold maximum rainfall regime (Braimah et

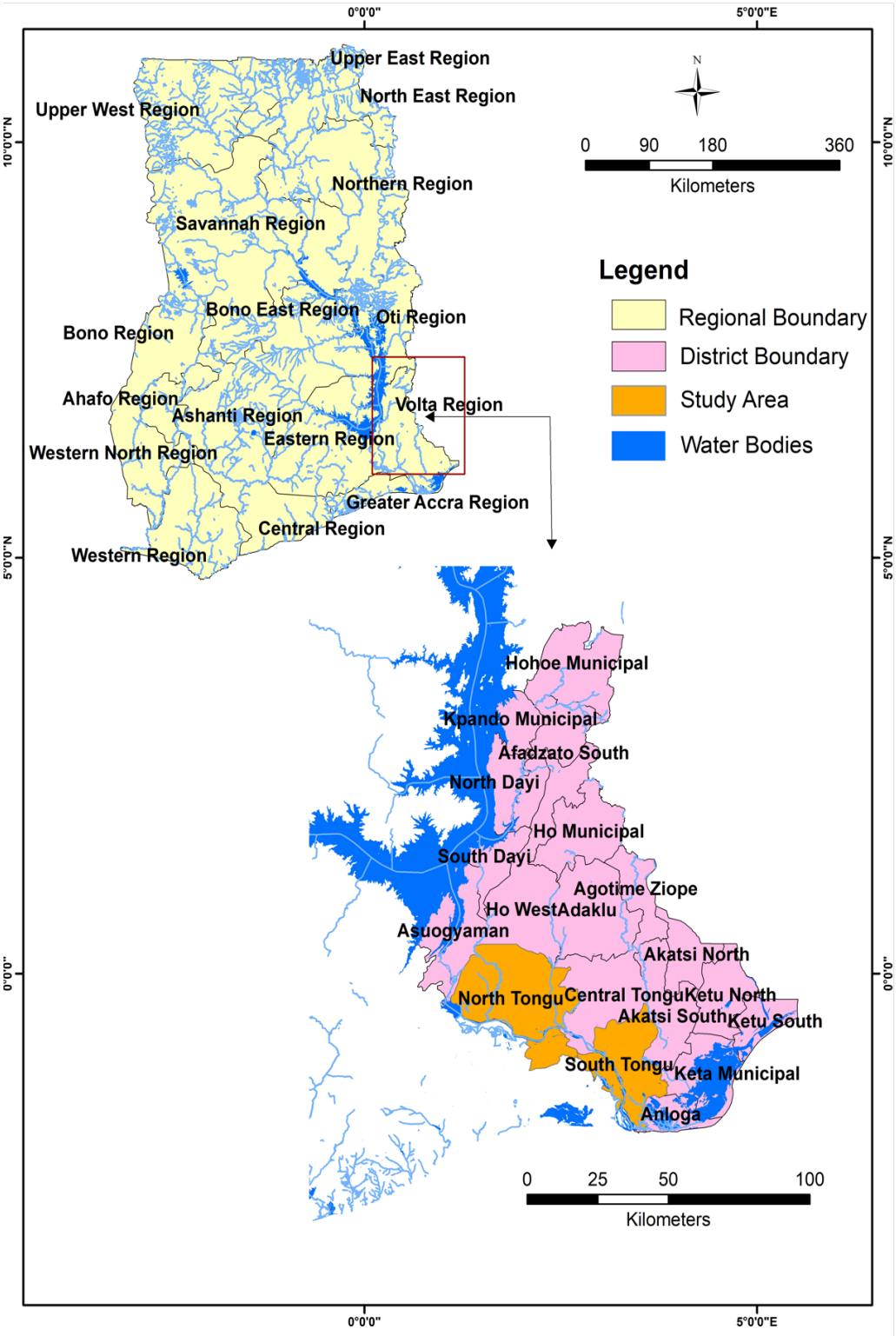
al., 2022; Ghana Statistics Service, 2014; Israelsson et al., 2020; Wondergem, 2016). The rainfall from the Southwest Monsoon Wind contributes to the success of agriculture in both South Tongu and North Tongu Districts. It provides the necessary water for crops to thrive. Farmers in these districts have learned to adapt to the unique climate pattern, utilizing it to their advantage in their cultivation practices. However, farmers in these rural communities faced challenges such as limited access to irrigation water and infrastructure, which hindered their productivity. Despite these obstacles, the agricultural sector remains the backbone of the local economy, providing employment and sustenance for the majority of residents.

Smallholder farmers who irrigate their farms produce more rice and vegetables than those who depend on rainfalls. Irrigated farms exhibit better technical, allocative, and economic efficiency than rain-fed farms (Bidzakin et al., 2018). Crop yields, on the other hand, are frequently low due to the poor status of irrigation, irrigable fields, and irrigation infrastructure in the area.

Moreso, the combination of swampy areas, water sources, and the distinct districts' climate patterns makes both districts prime locations for agricultural production. However, farmers' perceptions of irrigation access greatly impacted their decisions on what crops to grow and how much to produce. Some farmers choose to focus on crops that require less water in order to minimize their reliance on irrigation systems. Others also invest in irrigation technology to maximize their yields. Additionally, soil quality and market demand also play a role in determining the types and quantities of crops that farmers choose to cultivate in these districts (Ghana Statistical Service, 2014).

The success of agriculture in the communities in the study area is dependent on farmers' ability to adapt to changing conditions and make strategic decisions based on their individual circumstances. The rich soil in these districts, combined with the consistent rainfall from the Southwest Monsoon Wind, allows for a variety of crops to be grown successfully, including staples like maize, cassava, and rice. The farmers in the selected communities in these districts have honed their skills over generations, passing down traditional farming techniques that take advantage of the unique climate conditions. By understanding and working with the natural environment, the farmers have been able to sustainably produce food and support their local economy for years. However, the harsh effects of climate change in the forms of long spells of drought and erratic rainfall negatively affected farmers' productivity and yield in recent years. This highlights the need for irrigation access to prevent future crop damages and promote food security.

Figure 1: Study Area Map



Source: UNOCHA, 2024

Data Collection and Analysis

In this survey, two potential irrigation districts were chosen on purpose from the Volta Region. In December 2023, an initial household survey was carried out in Tordzinu and Dorfor-Adidome in the study area. Throughout this initial survey, useful data was gathered on the perceptions of smallholder farmers about access to irrigation and their needs for irrigation

system development. Subsequently, a questionnaire was carefully designed and uploaded unto the digital data collection platform known as Kobotool Box. This simplified the data collection process and eventual storing and retrieving it. The survey was carried out with the use of informed consent forms, ensuring that respondents were fully aware of and agreed to take part. Additionally, careful measures were taken to guarantee the anonymity and confidentiality of the respondents.

The Yamane sample size formula has been widely used in previous studies as a reliable method for obtaining an appropriate sample size when a population size is known. Studies have used this method because it ensures that the selected sample appropriately represents the target population without requiring a full census. In these past studies, the process involves determining the total number of individuals within the population and selecting a permissible margin of error, typically set at 0.05 or 0.10, as shown in equation 1 below (Alor et al., 2023; Awuku et al., 2023; Hasan & Kumar, 2024; Ikehi et al., 2019).

This study uses the Yamane sample size calculation with a 0.05 margin of error to determine the sample size for the study. The sample size was 357 household farmers. However, 75 individuals failed to respond to the questionnaire due to their unavailability, time constraints, and other personal reasons. Some farmers had busy schedules and prioritized other activities over participating in the survey. Therefore, the responses from 282 household farmers were used in the survey. The Yamane formula is expressed as:

$$n=N/(1+N(e)^2) \quad (1)$$

Where:
n = required sample size
N = population size (farmer population in the selected communities, 3344)
e = margin of error expressed in decimal (0.05)

Therefore,

$$n=N/(1+N(e)^2)$$
$$=3344/(1+3344(0.05)^2)$$
=357 respondents (farmers)

Using trained enumerators, the questionnaire was administered randomly to 282 household farmers in the selected communities from January to February 2024. The selected communities included Tordzinu, Hikpo, Sokpoe from South Tongu, and Agorveme, Korsive, and Dorfor-Adidome from North Tongu with a total farmer population of about 3344 farmers. The selection of these study communities was purposeful, as they exhibited a lack of irrigation usage and inadequate construction of irrigation infrastructure among smallholder farmers. To verify the results of the questionnaire, interviews were conducted with extension officers from the directorate of agriculture in both districts.

Here the questionnaire was divided into two main sections. The first section focused on the socio-demographic factors of smallholder farmers in the study area, including gender, age, education, farm size, and farmlands ownership. The second section examined smallholder farmers' perceptions of irrigation access in the study area. The survey consists of Likert-scale questions with a range of responses provided to understand the extent of agreement among respondents regarding their perceptions of irrigation access and needs. In the analysis of data,

SPSS software version 27 and Excel were used to generate tables and figures that present descriptive statistics, specifically frequencies and percentages.

Results and Discussion

Socio-Demographic Factors of the Respondents

To understand smallholder farmers' perceptions of irrigation access, several socio-demographic factors, including age, gender, education level, farm size, and farmland ownership were considered (Table 1). The results showed that males (61%) in the study area were involved in agriculture than females. This result is slightly higher than the 2021 population and housing census figure of 50.1% males in rural areas. It is also slightly above the national average household size of 4. In rural agricultural communities, male dominance in farming activities influence perceptions about irrigation facilities, including access, usage, and decision-making regarding adopting irrigation systems. In contrast, the 2021 population and housing census revealed that females (54%) slightly outnumbered males in the study area with an average household size of 4 (Ghana Statistical Service, 2021). The census data indicated a comparable pattern of gender distribution in both regional and national contexts, with an average household size of 3 and 4 individuals correspondingly (Ghana Statistical Service, 2021). This highlights gender-specific roles or barriers affecting females' active involvement in agriculture as they may face unequal access to resources like irrigation facilities. For instance, women might view irrigation as less accessible due to socio-cultural, financial, or labor constraints.

In terms of age, it was found that 71% of the respondents belonged to 40 – 49 and 50 – 59 year groups, with an average age of 50 years. This shows an aging trend that may be a factor to explain the low irrigation adoption rate among farmers. Brown and colleagues (2019) found that farmers who are older tend to be less adventurous and more risk averse. Similarly, Wang and colleagues (2015) found that farmers' possibility of adopting irrigation technologies declines with increasing age. However, other studies indicated otherwise. Studies by Bunyasiri and colleagues (2024) in Thailand demonstrated that aged farmers tend to adopt labor-saving technologies like irrigation.

Regarding education, 75% of the respondents had completed primary and secondary education (Table 1). It means that the respondents were literate. Farmers' literacy influenced their perceptions of irrigation access, as those with higher levels of education will more likely understand and implement irrigation. It also means that farmers with higher levels of education are more likely to be aware of and understand the benefits of irrigation. They can also use and maintain irrigation systems well. Moges and Taye (2017) found that the educational level of farmers had a positive and very significant association with their perception.

Regarding farm size, 50% operated on small farm sizes of less than 5 acres (Table 1). They had farms at different locations. It means that farmers with smaller plots of land may not be interested in irrigation access due to the high initial costs of implementation. Asrat and Simane (2018) found that farm size influences farmers' decisions to implement technologies such as irrigation.

Regarding farmland ownership, 76% of the respondents did not own farmlands (Table 1). It means that these farmers may be unwilling to invest in and develop the farmland, with irrigation

facilities, on which they operate. Koirala and colleagues (2016) found that farmers who do not own farmland were less likely to invest in land improvement and in irrigation.

Table 1: Socio-Demographic Factors of the Respondents

Socio-demography	Category	Frequency	Percentage (%)
Gender	Male	173	61
	Female	109	39
Age (Years)	18-29	12	4
	30-39	45	16
	40-49	133	47
	50-59	66	24
	60-69	22	8
	Above 69	4	1
Education level	No formal Education	53	19
	Primary/Basic	86	31
	Secondary	124	44
	Tertiary	19	7
Farm size (Acreage)	< 5	140	50
	5-9	58	21
	10-14	38	13
	15-19	25	9
	More than 20	21	7
Farmland ownership status	Owned	69	24
	Not owned	213	76

Smallholder Farmers' View of Irrigation Merits and Demerits

This survey used a Likert-scale question to tried to understand respondents' perceptions about irrigation benefits (Figure 2). This question was based on the level of agreement among the respondents, where 1 indicates strong agreement and 5 indicates strong disagreement. The following options were presented: (1) It minimizes risks of drought; (2) It improves crop yield; (3) It saves time; (4) It reduces the cost of labor; (5) It increases cost of farm produce.

The results show that all respondents agreed or strongly agreed that irrigation minimizes risks of drought (Figure 2). It means that the respondents recognize or might have experienced the negative impacts of drought on their farms. It further means that farmers are aware of the importance of irrigation in maintaining their crop yields during periods of limited rainfall. This acknowledgment of the benefits of irrigation could lead to increased positive perception of irrigation adoption among farmers in the future, highlighting the significance of irrigation in mitigating the effects of drought.

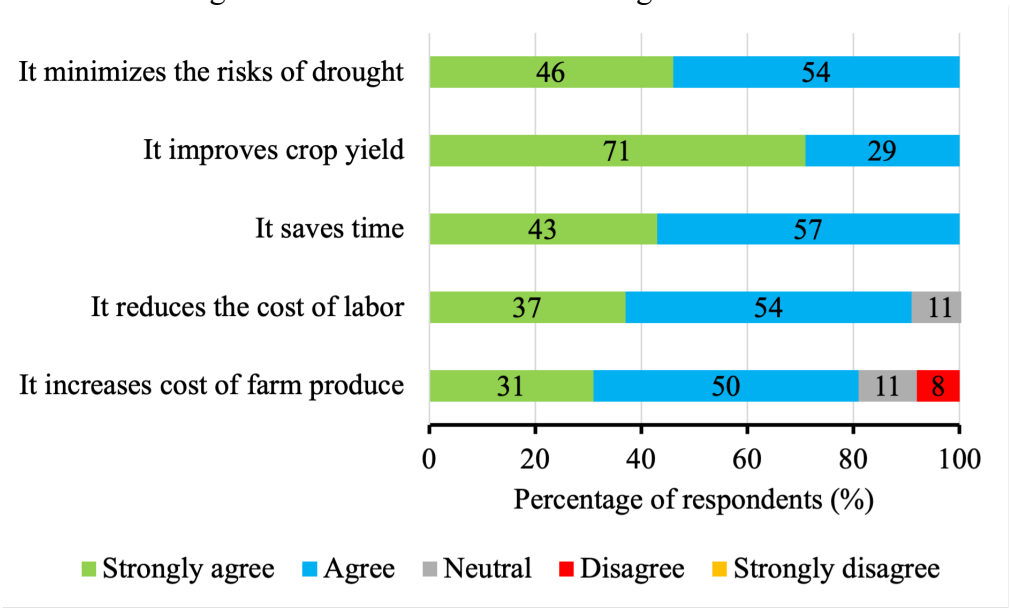
All respondents agreed (29%) or strongly agreed (71%) that irrigation improves yield (Figure 2). It means the respondents were aware of the effects of water on crops. They might have also participated in the field demonstrations organized by the directorate of agriculture on irrigation. This may have served as valuable educational opportunities for farmers to learn about irrigation benefits.

The respondents agreed (55%) or stronly agreed (44%) that irrigation saves time (Figure 2). This positive perception indicates that farmers with access to irrigation are likely to consider it as a good choice for managing their farming activities. However, it could also mean that those farmers who lack irrigation access may view time constraints as a significant challenge, which could affect their readiness to adopt irrigation technologies. This highlights a positive impact that irrigation can have on both farmers' time management and the overall health of plants.

In terms of labor cost, the results show that the respondents agreed (54%) and strongly agreed (37%) that irrigation reduces labor cost (Figure 2). It means that the respondents believe that irrigation systems help to streamline the farming process. It reduces the need for manual labor and saves time. In addition, when the watering process is automated, farmers can focus their efforts on other important tasks. Therefore, investing in irrigation technology can lead to significant cost savings in terms of labor.

Regarding the cost of farm produce, all respondents agreed (59%) or strongly agreed (49%) that irrigation increases the cost of farm produce (Figure 2). It means that farmers with irrigation access have enhanced confidence in consistent production, improved yield and good price. Though irrigation can improve productivity and yield, it could possibly affect market price, affecting farmers' perceptions of irrigation access. For instance, the expenses that farmers incur on irrigation during the production period might be passed on to the market price to enhance profit. This may lead to higher produce costs for the consumer. As a result, farmers might lose profits in the event that consumers fail to purchase the produce at the setted market price.

Figure 2: Smallholder Farmers' Irrigation Benefits



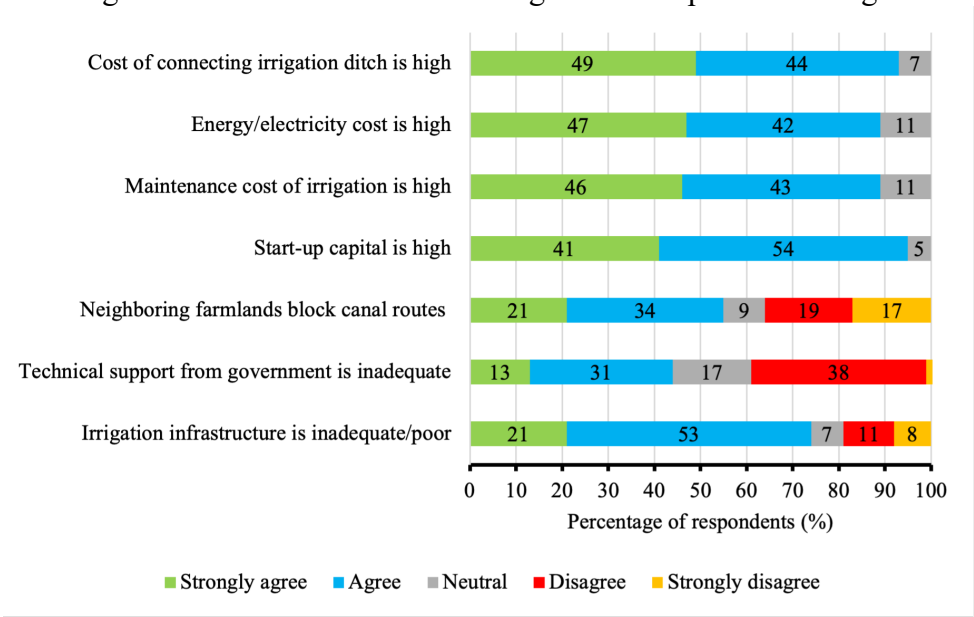
Smallholder Farmers' Irrigation Access Challenges

The survey attempted to identify responding farmers constraints with a Likert-scale question. From the preliminary field observation and literature review, the following challenges were identified: (1) Cost of connecting irrigation ditch is high; (2) Energy/electricity cost is high; (3) Maintenance cost of irrigation is high; (4) Start-up capital is high); (5) Neighboring farmlands obstruct canal routes; (6) Technical support from government is inadequate; (7) Irrigation

infrastructure is inadequate/poor. Considering these challenges, the respondents were asked to make applicable choices (Likert-scale questions), where 1 indicates strong agreement and 5 being strong disagreement (Figure 3).

The result shows that about 93% of the respondents agreed or strongly agreed that the cost of connecting irrigation ditches was high (Figure 3). In terms of energy/electricity cost for pumping water, the result showed that almost 89% agreed or strongly agreed. Other challenging physical installation cost were for canal and pump maintenance (89%). Responding farmers (95%) blamed a lack of start-up capital for their inability to access irrigation water to their farms. About 55% blamed neighboring farmlands obstructing canal routes. It was found that responding farmers (44%) lacked technical support from the government. They also strongly lacked adequate irrigation infrastructure (74%) around their farms (Figure 3).

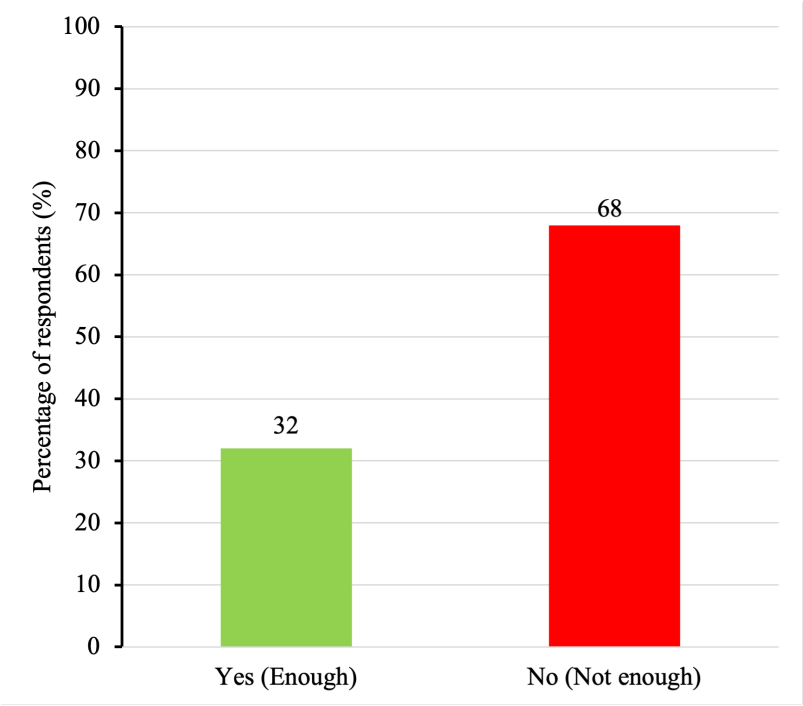
Figure 3: Smallholder Farmers' Irrigation Perception Challenges



Volume of Irrigation Water for Crop Production

In connection with the above section, the survey tried to understand from irrigators' physical observations if the volume of irrigation water that they accessed was enough to grow their crops. The results have shown that 68% did not have sufficient volume of water to grow their crops to their desired level (Figure 4). It means that it was difficult for these farmers to bring water to their farms. This further means that the farmers experienced a shortage of irrigation water which resulted in lower crop yields and decreased profits. Many of them expressed frustration with the low volume of water available and the impact it had on their yield. A further investigation showed that farmers had to resort to rainfall to supplement their irrigation needs. Responding farmers also had to reduce the scale of production. The impact of inadequate volume of irrigation water has become a pressing issue for farmers in the study area and cannot be ignored.

Figure 4: Smallholder Farmers' Satisfaction With Irrigation Water for Crops



Conclusion

This study examines smallholder farmers' perceptions of irrigation access in Ghana's South and North Tongu districts. Several factors including physical and financial constraints were identified. The Socio-demographic factors showed that responding smallholder farmers operated on small farm sizes at different locations, making it difficult for them to invest in irrigation access technologies. Customarily, female farmers had less decision-making power, and this influenced their perceptions of irrigation access. The responding farmers were literate, indicating that educated farmers, whether formal or informal, may have a better understanding of the technical and economic aspects of irrigation systems. Other than that, they could understand the benefits of irrigation, manage and maintain irrigation facilities with ease. However, they blamed a lack of farmland ownership for the inability to access irrigation.

A lack of access to irrigation water is a common challenge among the surveyed communities. Responding farmers encountered financial constraints, such as the cost of maintenance (89%), energy/electricity (89%) and irrigation ditch construction (93%), highlighting the need for irrigation training and capacity building among farmers. Respondents further blamed start-up capital (95%) for their inability to access irrigation, highlighting the need for credit and irrigation infrastructure supports for farmers from government. It was difficult for responding farmers (68%) to bring water to their farms as they expressed frustration with the low volume of water available and the impact it had on their yield. This highlights the need to support farmers with the construction of reservoirs and canals in the area to access irrigation water.

In order to increase irrigation access among farmers, efforts should be made to improve access to water sources and provide support for implementing irrigation technology. Irrigation can first be established as an administrative enterprise, leveraging right-of-way land acquisition to secure canal routes for farmers. Farmers' entitlement to irrigation water should be associated with arable land areas rather than the rights to land ownership. This would make it possible for all farmers to equally access irriagtion water for their farms. In connection with education level or literacy, all responding farmers were positive that irrigation can mitigate drought effects,

improve yield, save time and contribute to high produce cost, indicating that this broad consensus could be leveraged to encourage adoption in areas where irrigation access is currently limited. The results of this study might guide policy interventions to support women farmers, training and capacity building for all farmers with lower levels of education.

Author's Note

This conference proceeding paper is related to one of my thesis chapters at the Graduate School of Science and Technology, University of Tsukuba, Japan, 2024.

Acknowledgements

I extend a heartfelt gratitude to my supervisor, Professor Kenichi Matsui, for his continuous academic support and guidance throughout my doctoral program.

I am grateful to the Directorates of Agriculture in the South and North Tongu Districts of Ghana for their invaluable assistance in facilitating the data collection for this paper. My sincere appreciation also goes to the dedicated farmers, whose willingness to participate in the questionnaire interview and share their experiences played an important role in enriching this study.

I am grateful for the scholarship from the Japan Science and Technology Agency: Support for Pioneering Research Initiated by the Next Generation—JST SPRING Fellowship, for funding my doctoral studies in my final year at the University of Tsukuba, Japan.

Finally, I express my heartfelt gratitude to Klenam Venus Tamekloe and Setornam Ferguson Tamekloe (children) for their understanding during my time in Japan. I have not forgotten your unflinching support, Nagamatsu Hiroko.

Dōmo Arigatō gozaimasu!!!

References

Agodzo, S. K., Bessah, E., & Nyatuame, M. (2023). A review of the water resources of Ghana in a changing climate and anthropogenic stresses. *Frontiers in Water*, *4*(2023), 1-20. https://doi.org/10.3389/frwa.2022.973825

Akrofi, N. A., Sarpong, D. B., Somuah, H. A. S., & Osei-Owusu, Y. (2019). Paying for privately installed irrigation services in Northern Ghana: The case of the smallholder Bhungroo irrigation technology. *Agricultural Water Management*, *216*(2019), 284-293. https://doi.org/10.1016/j.agwat.2019.02.010

Akudugu, M. A., Millar, K. K.-N.-D., & Akuriba, M. A. (2021). The livelihoods impacts of irrigation in Western Africa: The Ghana Experience. *Sustainability*, *13*(10), 1-13. https://doi.org/10.3390/su13105677

Alor, S. K., Kretchy, I. M. A., Glozah, F. N., & Adongo, P. B. (2023). Factors associated with glycaemic control among patients with type 2 diabetes mellitus in Ho, Ghana: A cross-sectional study. *Metabolism Open, 20*(2023), 1-7. https://doi.org/10.1016/j.metop.2023.100265

Amponsah, S. K., Addo, A., Dzisi, K., Asante, B., & Afona, D. (2018). Assessment of rice farmers' knowledge and perception of harvest and postharvest losses in Ghana. *Cogent Food & Agriculture*, *4*(1), 1-14. https://doi.org/10.1080/23311932.2018.1471782

Ankrah, J. (2024). Climate risks and adaptation strategies: The perspectives of farmers in coastal Ghana. *Journal of Environmental Studies and Sciences, 1*(2024), 1-29. https://doi.org/10.1007/s13412-024-00970-w

Asiedu, E., & Gross, E. (2017). Can differences in benefits affect group investment into irrigation projects? Experimental evidence from Northern Ghana. Discussion papers. Available at https://www.econstor.eu/handle/10419/157266

Asrat, P., & Simane, B. (2018). Farmers' perception of climate change and adaptation strategies in the Dabus watershed, North-West Ethiopia. *Ecological Processes*, *7*(1), 1-13. https://doi.org/10.1186/s13717-018-0118-8

Assan, E., Suvedi, M., Olabisi, L. S., & Bansah, K. J. (2020). Climate change perceptions and challenges to adaptation among smallholder farmers in semi-arid Ghana: A gender analysis. *Journal of Arid Environments*, *182*(2020), 1-9. https://doi.org/10.1016/j.jaridenv.2020.104247

Atiah, W. A., Amekudzi, L. K., Quansah, E., & Preko, K. (2019). The spatio-temporal variability of rainfall over the agro-ecological zones of Ghana. *Atmospheric and Climate Sciences*, *9*(03), 527.

Awuku, M. S., Benjamin Yao, F., Kweku, S. F., Samuel, M., & Akosua, A. T. (2023). The dynamics of mobile phone usage among small-scale oil palm processors: Evidence from the Eastern Region, Ghana. *Cogent Social Sciences, 9*(1), 1-17. https://doi.org/10.1080/23311886.2023.2222570

Ayamga, M., Yeboah, R. W. N., & Ayambila, S. N. (2016). An analysis of household farm investment decisions under varying land tenure arrangements in Ghana. *Journal of Agriculture and Rural Development in the Tropics and Subtropics, 117*(1), 21-34. Available at https://urn.fi/urn:nbn:de:hebis:34-2015120349476

Balana, B. B., Bizimana, J. C., Richardson, J. W., Lefore, N., Adimassu, Z., & Herbst, B. K. (2020). Economic and food security effects of small-scale irrigation technologies in Northern Ghana. *Water Resources and Economics*, *29*(2020), 1-18. https://doi.org/10.1016/j.wre.2019.03.001

Bidzakin, J. K., Fialor, S. C., Awunyo-Vitor, D., & Yahaya, I. (2018). Impact of irrigation ecology on rice production efficiency in Ghana. *Advances in Agriculture*, *2018*(1), 1-10. https://doi.org/10.1155/2018/5287138

Boateng, E. N., Atampugre, G., Mariwah, S., Mensah, I., Johnson, F. A., Furst, C., & Nyarko, B. K. (2024). Spatial and multivariate assessment of access to water for sustainable agriculture intensification in semi-arid Ghana. *PLOS Water*, *3*(10), 1-23. https://doi.org/10.1371/journal.pwat.0000283

Braimah, M. M., Asante, V. A., Ahiataku, M. A., Ansah, S. O., Otu-Larbi, F., Yahaya, B., Ayabilah, J. B., & Nkrumah, F. (2022). Variability of the Minor Season Rainfall over Southern Ghana (1981–2018). *Advances in Meteorology*, *2022*, 1–14. https://doi.org/10.1155/2022/1861130

Brown, P., Daigneault, A., & Dawson, J. (2019). Age, values, farming objectives, past management decisions, and future intentions in New Zealand agriculture. *Journal of Environmental Management*, *231*(2019), 110–120. https://doi.org/10.1016/j.jenvman.2018.10.018

Bunyasiri, I., Suchato, R., & Sirisupluxana, P. (2024). Adaptation of rice farmers to aging in Thailand. *Open Agriculture*, *9*(1), 1-10. https://doi.org/10.1515/opag-2022-0364

Burney, J. A., Naylor, R. L., & Postel, S. L. (2013). The case for distributed irrigation as a development priority in Sub-Saharan Africa. *Proceedings of the National Academy of Sciences*, *110*(31), 12513–12517. https://doi.org/10.1073/pnas.1203597110

Castillo, G. M. L., Engler, A., & Wollni, M. (2021). Planned behavior and social capital: Understanding farmers' behavior toward pressurized irrigation technologies. *Agricultural Water Management*, *243*(2021), 1-12. https://doi.org/10.1016/j.agwat.2020.106524

Chuchird, R., Sasaki, N., & Abe, I. (2017). Influencing factors of the adoption of agricultural irrigation technologies and the economic returns: A case study in Chaiyaphum Province, Thailand. *Sustainability*, *9*(9), 1-16. https://doi.org/10.3390/su9091524

Dakpalah, S. S., Anornu, G. K., & Ofosu, E. A. (2018). Small scale irrigation development in Upper West region, Ghana; challenges, potentials and solutions. *International Journal of Civil and Structural Engineering*, *10*(3), 1-14. Available at https://www.researchgate.net/publication/338777971

Dakurah, G., Osbahr, H., & Arnall, A. (2024). Smallholder farmers' cropping decisions in rural North-west Ghana under climate variability and change. *Regional Environmental Change*, *24*(1), 1-22. https://doi.org/10.1007/s10113-023-02168-2

Derkyi, M., Adiku, S. G., Nelson, V., Delali Dovie, B., Codjoe, S., & Awuah, E. (2018). Smallholder farmers' perception of climatic and socio-economic factors influencing livelihoods in the transition zone of Ghana. *AAS Open Research*. http://gala.gre.ac.uk/id/eprint/24269

Dziwornu, M. G., Mponela, P., Inusah, S. S., Agyarko, F. F., Yeboah, S., Damba, O. T., Akpatsu, I. B., & Abera, W. (2024). Institutional efforts and regional distribution of climate-smart agriculture initiatives in Ghana. *Climate Smart Agriculture, 2*(2025), 1-13. https://doi.org/10.1016/j.csag.2024.100038

Fagariba, C. J., Song, S., & Soule, S. (2018). Factors influencing farmers' climate change adaptation in Northern Ghana: Evidence from subsistence farmers in Sissala West, Ghana. *Journal of Environmental Science and Management*, *21*(1), 61-73 Available at https://ovcre.uplb.edu.ph/journals-uplb/index.php/JESAM/article/view/

Ghana Statistical Service. (2014). 2010 Population & housing census report: District analytical report. South Tongu District. Ghana statistical service. Available at http://www.statsghana.gov.gh/

Ghana Statistical Service. (2021). Ghana 2021 population and housing census. General report volume 3A: Population of Regions and Districts. Available at https://statsghana.gov.gh/gssmain/fileUpload/pressrelease/2021%20PHC%20General%20Report%20Vol%203A_Population%20of%20Regions%20and%20Districts_181121.pdf

Hasan, M. K. H., & Kumar, L. K. (2024). Determining adequate sample size for social survey research: sample size for social survey research. *Journal of the Bangladesh Agricultural University*, *22*(2), 146-157. https://doi.org/10.3329/jbau.v22i2.74547

Ikehi, M. E., Onu, F. M., Ifeanyieze, F. O., Paradang, P. S., Nwakpadolu, M. G., Ekenta, L. U., & Nwankwo, C. U. (2019). Survey on sample sizes of postgraduate theses in agricultural education and extension in Universities of Nigeria. *Journal of Extension Education*, *31*(1), 1-9. https://doi.org/10.26725/JEE.2019.1.31.6200-6208

Israelsson, J., Black, E., Neves, C., Torgbor, F., Greatrex, H., Tanu, M., & Lamptey, P. N. L. (2020). The spatial correlation structure of rainfall at the local scale over southern Ghana. *Journal of Hydrology: Regional Studies*, *31*, 100720. https://doi.org/10.1016/J.EJRH.2020.100720

Koirala, K. H., Mishra, A., & Mohanty, S. (2016). Impact of land ownership on productivity and efficiency of rice farmers: The case of the Philippines. *Land Use Policy*, *50*(2016), 371–378. https://doi.org/10.1016/j.landusepol.2015.10.001

Koku, J. E. (2001). Socio-cultural factors and land degradation in the South Tongu District of Ghana: Some implications for resource protection and environmental health. *Journal of Environmental Planning and Management, 44*(3), 309-330. https://doi.org/10.1080/09640560120046089

Kudadze, S., Imoru, A. J., & Adzawla, W. (2019). Farmers' perception on irrigation farming and the factors influencing access to and size of irrigable lands in Northern Region, Ghana. *Asian Food Science Journal*, *8*(3), 1–14.

Kyei-Baffour, N., & Ofori, E. (2006). Irrigation development and management in Ghana: Prospects and challenges. *Journal of Science and Technology, 26*(2), 148-159. https://doi.org/10.4314/just.v26i2.32996

Lefore, N., Giordano, M. A., Ringler, C., & Barron, J. (2019). Sustainable and equitable growth in farmer-led irrigation in Sub-Saharan Africa: What will it take?. *Water Alternatives*. *12*(1), 156-168. Avaialble at https://pub.epsilon.slu.se/34304/1/lefore-n-et-al-20240529.pdf

Limantol, A. M., Keith, B. E., Azabre, B. A., & Lennartz, B. (2016). Farmers' perception and adaptation practice to climate variability and change: A case study of the Vea catchment in Ghana. *SpringerPlus*, *5*(1), 1-38. https://doi.org/10.1186/s40064-016-2433-9

Moges, D. M., & Taye, A. A. (2017). Determinants of farmers' perception to invest in soil and water conservation technologies in the North-Western Highlands of Ethiopia. *International Soil and Water Conservation Research*, *5*(1), 56–61. https://doi.org/10.1016/j.iswcr.2017.02.003

Nalumu, D. J., Mensah, H., Amponsah, O., & Takyi, S. A. (2021). Stakeholder collaboration and irrigation practices in Ghana: issues, challenges, and the way forward. *SN Applied Sciences, 3*(5), 1-16. https://doi.org/10.1007/s42452-021-04407-9

Namara, R. E., Horowitz, L., Nyamadi, B. & Barry, B. (2011). Irrigation development in Ghana: Past experiences, emerging opportunities, and future directions. IFPRI Ghana strategy support program (GSSP), GSSP Working paper No. 0027. Accra and Washington, D.C.: International Food Policy Research Institute. Available at https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/124870/filename/124871.pdf

Ndamani, F., & Watanabe, T. (2015). Farmers' perceptions about adaptation practices to climate change and barriers to adaptation: A micro-level study in Ghana. *Water*, *7*(9), 4593–4604. https://doi.org/10.3390/w7094593

Nguyen, T. P. L., Seddaiu, G., Virdis, S. G. P., Tidore, C., Pasqui, M., & Roggero, P. P. (2016). Perceiving to learn or learning to perceive? Understanding farmers' perceptions and adaptation to climate uncertainties. *Agricultural Systems*, *143*(2016), 205–216. https://doi.org/10.1016/j.agsy.2016.01.001

Sekyi-Annan, E., Tischbein, B., Diekkrüger, B., & Khamzina, A. (2018). Performance evaluation of reservoir-based irrigation schemes in the Upper East Region of Ghana. *Agricultural Water Management*, *202*(2018), 134–145. https://doi.org/10.1016/j.agwat.2018.02.023

Udmale, P., Ichikawa, Y., Manandhar, S., Ishidaira, H., & Kiem, A. S. (2014). Farmers' perception of drought impacts, local adaptation and administrative mitigation measures in Maharashtra State, India. *International Journal of Disaster Risk Reduction*, *10*(2014), 250–269. https://doi.org/10.1016/j.ijdrr.2014.09.011

UNOCHA. (2024). United nations office for the coordination of humanitarian affairs, humanitarian data exchange. Available at https://data.humdata.org/dataset

Wang, J., Klein, K. K., Bjornlund, H., Zhang, L., & Zhang, W. (2015). Adoption of improved irrigation scheduling methods in Alberta: An empirical analysis. *Canadian Water Resources Journal/Revue canadienne des ressources hydriques*, *40*(1), 47-61. https://doi.org/10.1080/07011784.2014.975748

Wondergem, S. (2016). Environmental and social management framework. World Bank.

Woodhouse, P., Veldwisch, G. J., Venot, J. P., Brockington, D., Komakech, H., & Manjichi, Â. (2017). African farmer-led irrigation development: Re-framing agricultural policy and investment?. *The Journal of Peasant Studies*, *44*(1), 213-233. https://doi.org/10.1080/03066150.2016.1219719

Zakaria, A., Alhassan, S. I., Kuwornu, J. K., Azumah, S. B., & Derkyi, M. A. (2020). Factors influencing the adoption of climate-smart agricultural technologies among rice farmers in Northern Ghana. *Earth Systems and Environment*, *4*(2020), 257–271. https://doi.org/10.1007/s41748-020-00146-w

Contact email: mickyay@yahoo.com

A Proposal of an Auxiliary Method for Cosmetic Container Design Based on Sensibility Evaluation

Tomokazu Ishikawa, Toyo University, Japan

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
The purpose of this study is to explore the influence of gender on impressions of cosmetic container design, and to propose container designs based on sensitivity evaluation. Specifically, a questionnaire was administered to investigate the characteristics of containers and impressions of them, and the influence of gender differences on impressions was clarified. As a result, there was almost no difference in impressions of container design between men and women. Regression analysis was performed based on the questionnaire results, and container characteristics were calculated from the impression evaluation values. Using these results, a program was created to determine the shape of cosmetic containers based on the impression values. This program is intended to be a tool to support design proposals tailored to consumers' sensibilities. Future research is expected to conduct sensitivity evaluation of other design elements (color, material, etc.) to derive more detailed design guidelines.

Keywords: Kansei Engineering, Gender Difference, Regression Analysis

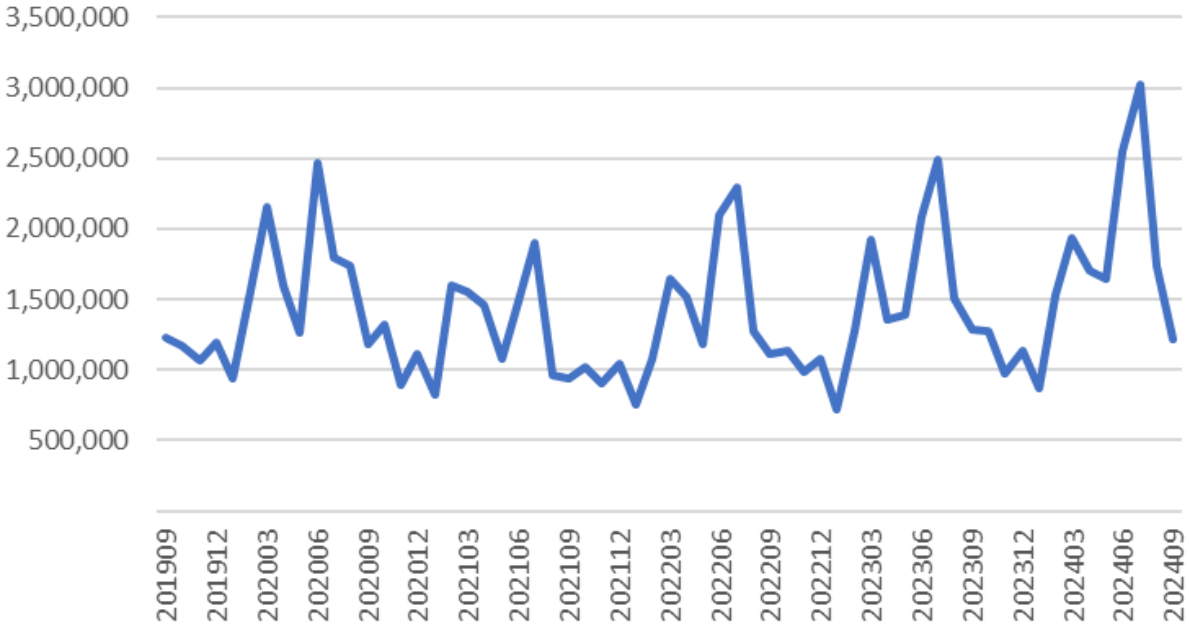
iafor
The International Academic Forum
www.iafor.org

Introduction

In addition to their essential functions of cleansing the skin, keeping it beautiful, and slowing down the aging process, cosmetics also have the psychological aspect of providing users with a sense of spiritual fulfillment. This is true not only for women but also for men, and a survey of men and women aged 16 and older found that men often use makeup (NEO MARKETING INC., 2022).

According to data from Japan's Ministry of Economy (Ministry of Economy, Trade and Industry, 2024), Trade and Industry's Current Production Statistics, the number of male skin cosmetics sold is slowly increasing from September 2019 to September 2024 (Figure 1).

Figure 1: Changes in the Number of Male Skin Cosmetics Sold



Note: The vertical axis represents the number of units sold in Japan, and the horizontal axis represents the year and month

Since the appearance of a product is the first point of contact with consumers and greatly influences their emotional impression, I believe that it can easily stimulate their willingness to purchase. Specifically, I believe that the psychological resistance of male consumers to the use of cosmetics can be reduced by optimizing the container design using Kansei Engineering.

For these reasons, I have narrowed our research theme to container design and will study cosmetics container design based on sensory evaluation.

In the next section, I will introduce our approach to cosmetics container design and research cases focusing on packaging containers that appeal to the senses.

Related Works

This section summarizes and describes existing research on cosmetics from a design and marketing perspective.

Research on Cosmetic Containers

Sudo and colleagues (2010) conducted a study to analyze emotional reactions to the design of cosmetics containers and to support designers' decision making when deciding on a design proposal. In this study, all the shape elements of the sample containers, such as the caps, were quantified and the characteristics of the containers were analyzed. In surveying users, they focused only on the "container shape" from a two-dimensional perspective. 9 samples were prepared, and adjectives such as "warm," "urban," and "simple" were used to survey the impression of the containers. Using the results obtained from the survey, they made samples of products with a clear target group, conducted a survey of users, and proposed a sensibility evaluation method.

Ida (2012) conducted a study on the pursuit of emotional value in cosmetics package design. In this study, he analyzed the pursuit of emotional and sensory appeal of products in cosmetics package design. The research was developed using the five senses as a starting point, with reference to ergonomics. Gripping pressure and the area of contact between the hand and the bottle were measured and compared with subjective evaluation. Based on the research on the analysis of grasping operation, he launched a skin maintainer as a cosmetic liquid. The problem was solved by observing the usability and integrating aesthetics and functional beauty.

Takenouchi (2001) conducted a study that compiled basic knowledge and useful information on cosmetics. In this study, cosmetics are classified and furthermore, the effects of each classified cosmetics and the quality factors of cosmetics are described in detail, which is useful for those who are not familiar with cosmetics to know what they are. The book covers all aspects of cosmetics from overview, history, definitions to the above.

Qian (2021) set up a hypothesis on the factors that constitute the "sense of luxury" of lotion bottles and investigated. In this study, while the "Proposal of a Sensibility Evaluation Method for Cosmetic Container Design" focused on the silhouette of the container, this study focused on "luxury" and investigated not only the container design but also factors such as color, brand logo, and sound. He investigated the elements that constitute the sense of "luxury," selected containers that are actually sold with "luxury" as a selling point, substituted our own logo, and conducted a user survey. The five scales used to measure the sense of luxury, "elegant," "luxurious," "high perfection," "pleasant," and "harmonious," were analyzed using a stepwise method, and significant estimates were recorded.

Toyoda and colleagues (2009) conducted a study proposing a new design technique for cosmetic containers. This study describes a package design in which the contents of the container are expressed through tactile sensations. Since the research focused on tactile sensation, which has not been used in previous studies, it was possible to develop a new design for containers. The focus on tactile sensation is novel compared to previous studies. Conventional design methods have focused on appearance and functionality, but the focus on tactile sensation has made it possible to develop a new design. This was verified by sensory evaluation experiments to clarify the relationship between the characteristics of the container and the usability of the contents associated with the container.

Miyamoto (2011) conducted a study that considered the possibility of a face-like information processing process for consumers' perception of product packages, based on the fact that product packages are like "faces" to consumers and the "face culture" of cosmetics makers as

a case study. In this study, it is important that product packages are recognized as "faces," and he consider the possibility of face-like information processing processes for consumers' product packages, using examples such as packaging methods based on the "face culture" of cosmetics manufacturers.

Suganuma (2010) researched consumer awareness and cosmetics trends through human sensibilities. Cosmetics brands by cosmetics companies are presented in an easy-to-understand timeline, with detailed analysis of trends in "sensibility, fashion, and cosmetics".

Research on Marketing of Cosmetics

Sung (2021) studied the influence of cosmetic container design on consumers' purchase intention. The study analyzed what kind of container design is preferred by consumers and increases their purchase intention. The influence of cosmetic container design on consumer purchase intention was analyzed for different demographic groups (age, gender, income, etc.). The meaning and interpretation of color in different cultures were also taken into account. Mainly a literature review and a questionnaire survey were conducted. The literature review analyzed previous studies on cosmetic container design, and the questionnaire survey investigated what kind of container design consumers prefer and how it influences their purchasing intentions. The most important aspect of the analysis is that it was conducted for different demographic groups and cultures. Since the purpose of the study is to analyze the influence of cosmetic container design on consumers' purchasing intentions, this study investigated consumers' preferences and purchasing intentions through a questionnaire survey. By conducting the analysis in different demographic groups and cultures, the results were obtained from a broader perspective.

Miyamoto (2020) conducted a study analyzing "sensory-memory packaging," an effective method for creating new categories in the cosmetics market. Creating a new product category was useful for generating new demand and gaining sales in a mature market. Unlike conventional product development methods, the research focused on consumer sensitivity and psychology. The unique feature of this research is that it can increase market competitiveness by obtaining information that cannot be obtained through conventional market analysis or customer needs research. It is important to design packaging and develop product concepts that focus on consumer sensitivity and psychology. Based on a case study in which the author was involved, it was shown that "sensitivity-memory packaging" is an effective method for creating a new category. The impact on reputation and consumers' purchasing behavior is also analyzed.

Nagasawa and colleagues (2001) conducted a study on a systematic product planning method for men's cosmetics to establish a single market. In this study, they proposed the development of a lotion for men. The precedent of a study specifically for men's lotion was rare considering that the paper was written in 2001. The important point of this study was to clarify consumer needs and market structure positioning for men's cosmetics, and to analyze the results of questionnaires on appearance and feel, and to conduct a positioning analysis for each. The market structure of men's lotion was thus clarified, and consumer needs, the market structure, and the direction of new product planning were empirically clarified.

Proposed Method

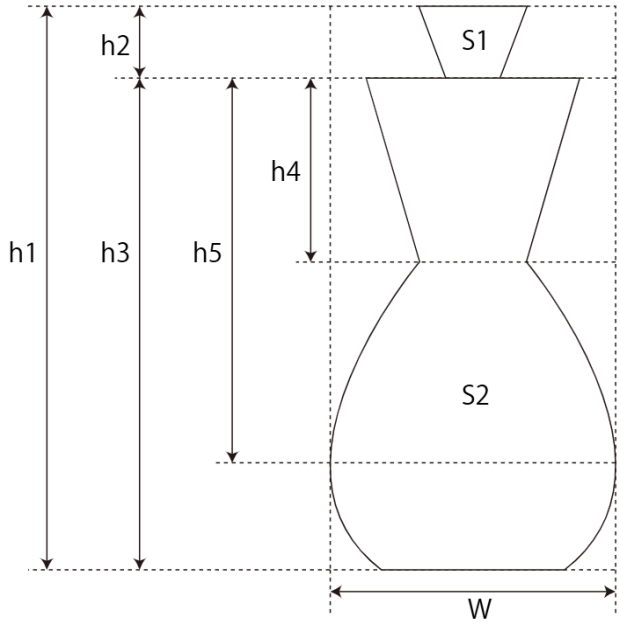
This study was conducted in the following order: analysis of the existing products, impression survey based on the existing products, and analysis of the impression survey and its application to the proposed system. Each phase is described in detail.

Analysis of Existing Products

First, I conducted a web image search using the keyword "lotion" and measured the length and area of each container for the 50 products that appeared at the top of the list based on existing method. The measured lengths and areas are shown in Figure 2. The lengths in the image were measured using a pixel ruler. Area was measured using the number of pixels in the area. The area to be calculated was filled in and the number of pixels in the area was counted using OpenCV.

After measuring the length and area of each location, features were calculated using the following formulae based on existing method (Sudo et al., 2010).

Figure 2: Length and Area of Each Location Measured to Calculate the Features of the Container



$$x_1 = \frac{h_1}{w}, \quad x_2 = \frac{h_2}{w}, \quad x_3 = \frac{h_3}{w}, \quad x_4 = \frac{S_1}{h_2 w}, \quad x_5 = \frac{h_2}{h_3 w}, \quad x_6 = \frac{h_4}{h_3}, \quad x_7 = \frac{h_5}{h_3} \tag{1}$$

Next, I examined whether the dimensionality of the features could be reduced using principal component analysis. Figure 3 shows the distribution of values for each feature for each sample. Figure 4 shows the results of plotting the sample with the first and second principal components after principal component analysis. Figure 5 shows the distribution of the values of the seven principal components for each sample after principal component analysis.

Figure 6 shows the cumulative contribution rate of each principal component in the results of the principal component analysis. The cumulative contribution ratio also indicated that it would be difficult to reduce the dimensionality of the features of the existing method.

Given this result, I shifted our strategy to select representative samples using clustering analysis. I applied Ward's hierarchical clustering method to our 50 initial samples. This approach allowed us to identify eight representative samples that captured the key variations in our design space. The dendrogram (Figure 7) shown here illustrates how the samples were grouped based on their feature similarities. This clustering approach can reduce the number of questions when conducting surveys, as it maintained the integrity of our feature space while making the evaluation process more manageable for survey participants. Each of the eight selected samples effectively represented a distinct design category in our sample space.

Figure 3: Distribution of the Values of Each Feature for Each Sample

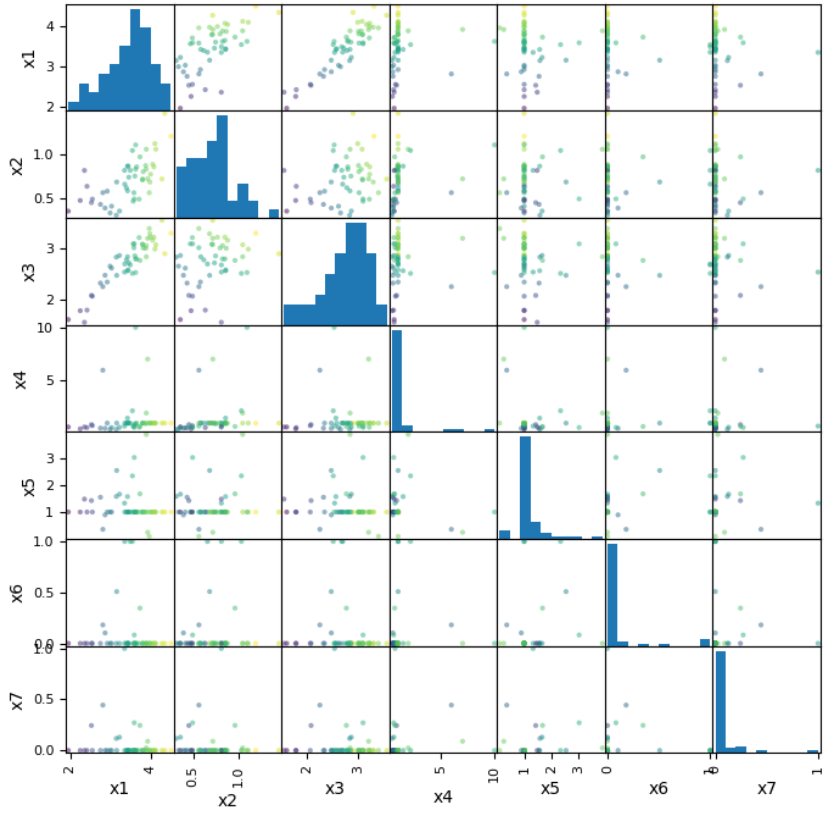


Figure 4: Results of Plotting Samples With First and Second Principal Components After Principal Component Analysis

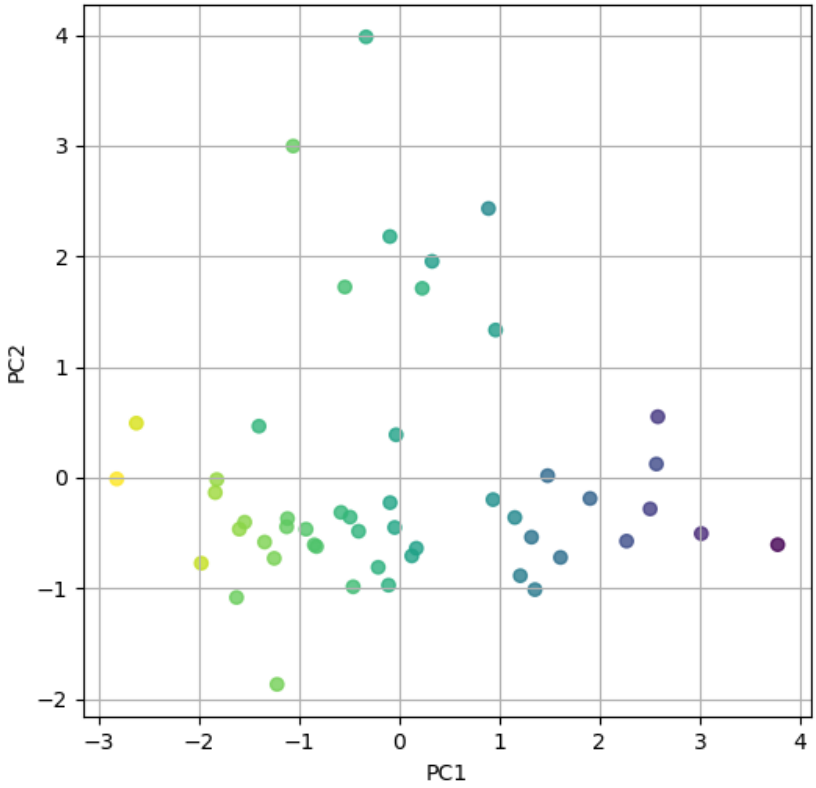


Figure 5: Distribution of the Values of the Seven Principal Components for Each Sample After Principal Component Analysis

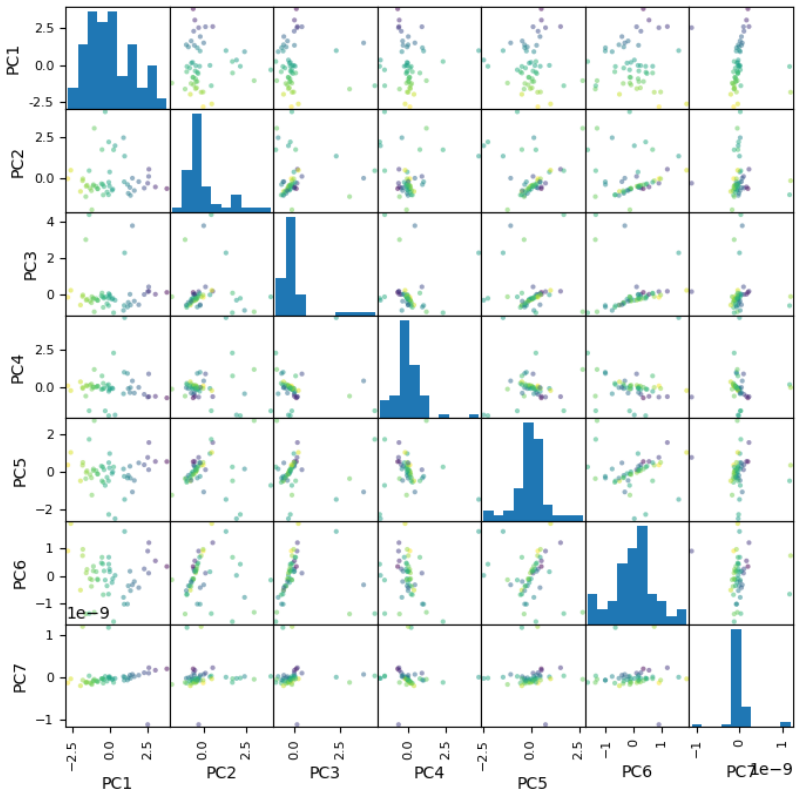


Figure 6: Cumulative Contribution Ratio of Each Principal Component in the Results of Principal Component Analysis

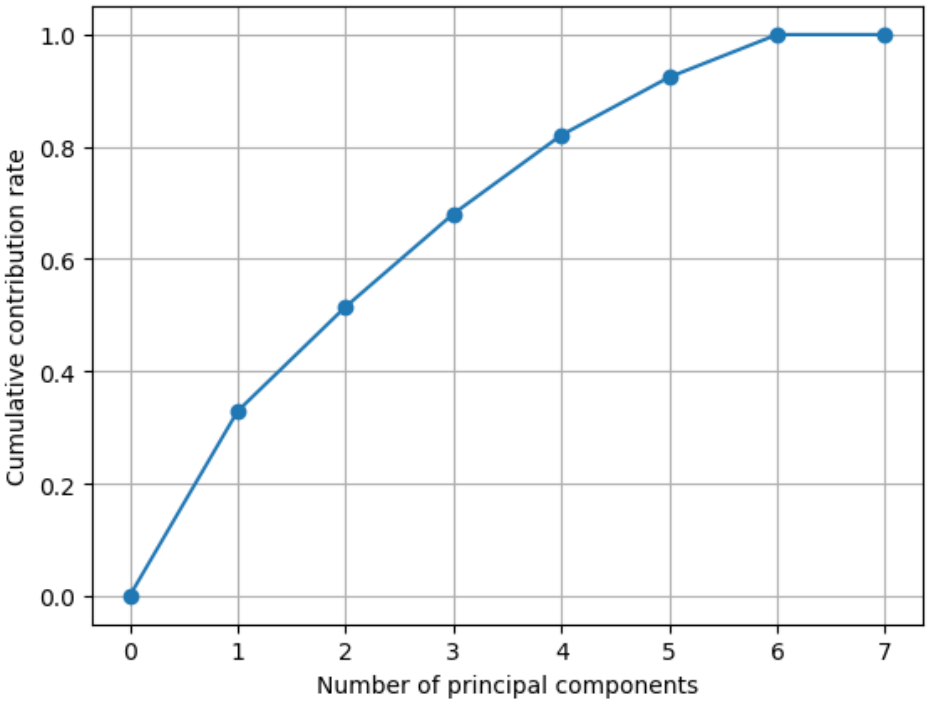
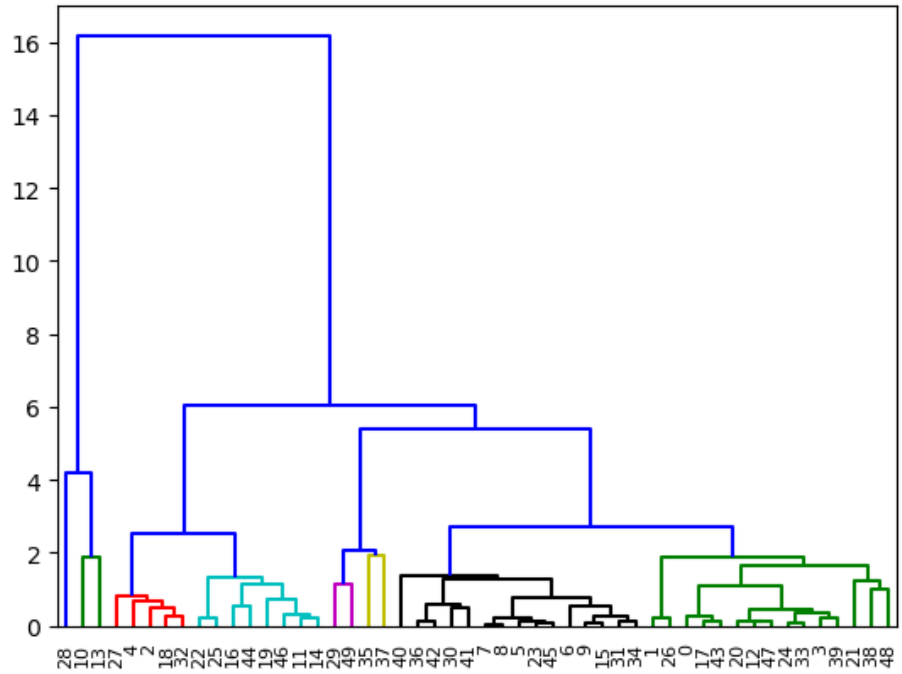


Figure 7: Dendrogram by Ward Method



Questionnaire Survey

An online impression survey was conducted on the eight existing products selected in the previous section. The product images were converted to grayscale images to eliminate the influence of color on the impression, and the product names and logos were also removed by image processing in Photoshop because of the preconceived influence on the impression.

The survey was completed online using Google Forms. Gender (male, female, and non-response) and age were collected as respondent attributes. The respondents were asked to answer each of the six adjective pairs in Table 1 on a 7-point scale. The response period was from June 5, 2024 to July 8, 2024, with 51 responses (male: 30, female: 19, no response: 2), and the mean age of respondents was 21.2 years (SD=3.79).

Table 1: Adjective Pairs Used to Evaluate Impressions

No.	Adjective pairs
A1	Warm - Cool
A2	Hard - Soft
A3	Urban - Rural
A4	Luxurious - Commoner
A5	Friendly - Not approachable
A6	Simple - Complex

Analysis of Questionnaires and Application to the Proposed System

First, I determine whether there is a gender difference in impressions of cosmetic containers. For each adjective pair of each sample container, I will determine whether there is a gender difference in impressions by testing whether there is a significant difference in the respective responses of men and women using the *t*-test at the 5% level of significance.

Next, multiple regression analysis is performed to link the adjective pair scores to the shape features. Finally, for the purpose of assisting designers in their production, I consider a system in which shape features are output based on the impression that the user wants to give to the end-user as input. That is, the user of the proposed system takes the impression evaluation as input and the corresponding shape design is presented.

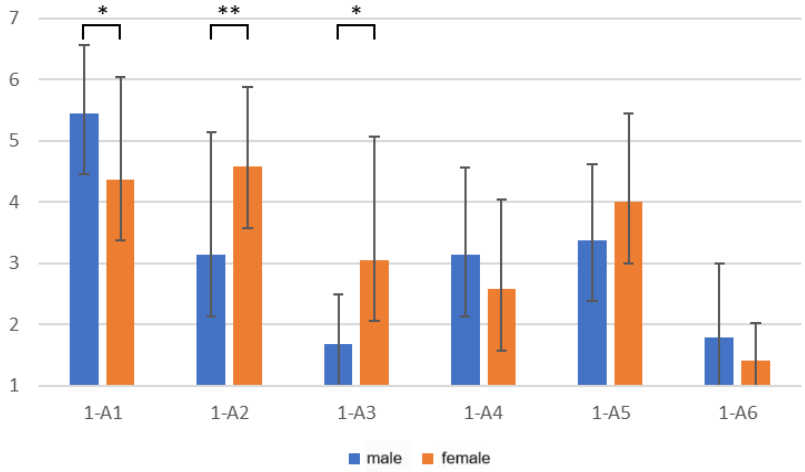
Result

In this section, I first summarize the results of the questionnaire analysis. Next, the results of the system created using the results of the questionnaire are presented.

Analysis Results

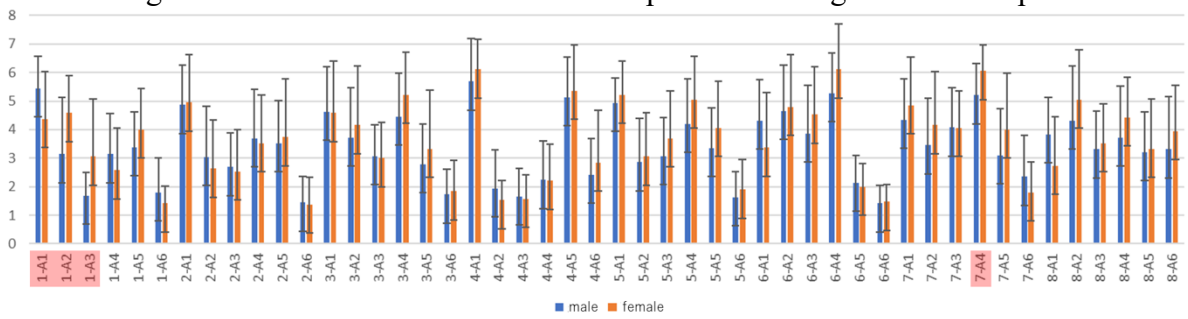
In order to confirm the gender difference in the results of the questionnaire survey described in the previous section, the *t*-test was used to examine whether there is a significant difference between the responses of male and female. The test was conducted for each sample and each adjective pair, and significant differences were found only for the questions "warm - cool," "hard - soft," and "urban - rural" for Sample 1, and for the question "luxurious - commoner" for Sample 7. The results of the male and female impression ratings for sample 1 are shown in Figure 8, and the results of the male and female impression ratings for all samples are shown in Figure 9. Each error bar represents a standard deviation. Since only four of the 48 items showed significant differences, it was concluded that there were no gender differences in the container impression survey.

Figure 8: Results of Male and Female Impression Ratings for Sample 1



*: $p < 0.05$, **: $p < 0.01$

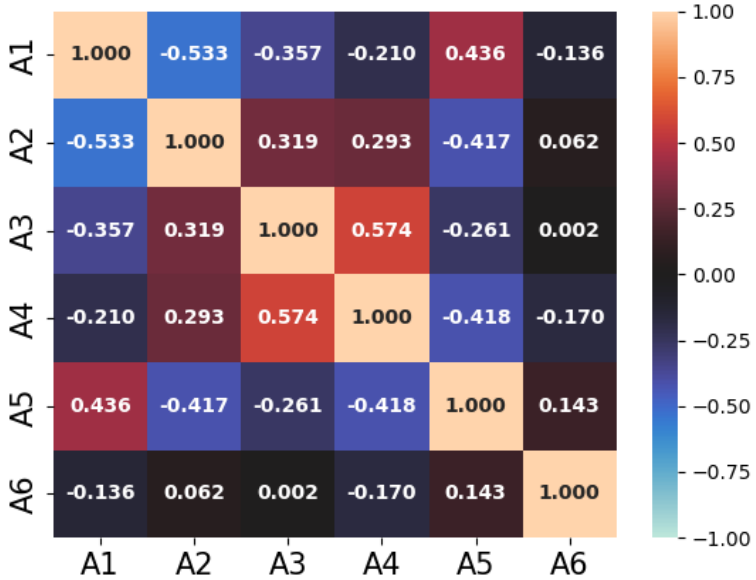
Figure 9: Results of Male and Female Impression Ratings for All Samples



Note: Items with red markers indicate significant differences.

A visualization of the correlation matrix for each impression survey is shown in Figure 10. There is a slight correlation between "urban - rural" and "luxurious - commoner," but no other correlations. This indicates that each adjective pair can be used as an independent variable.

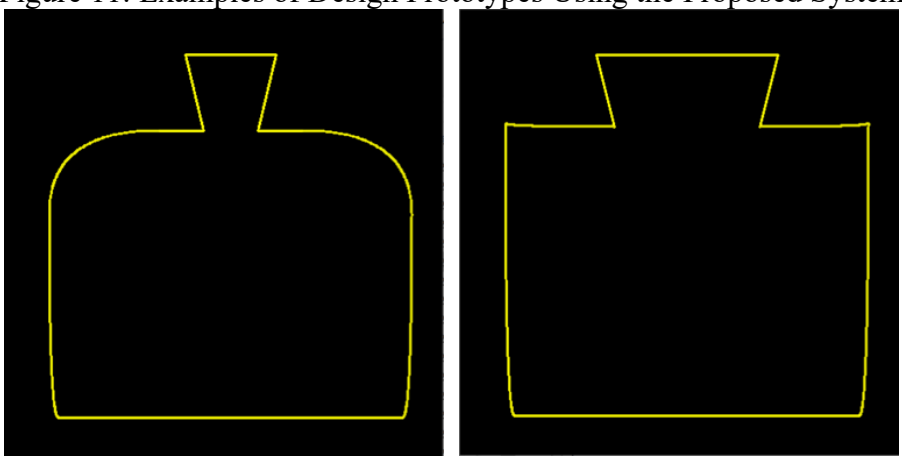
Figure 10: Correlation Matrix Visualization Results for Impression Evaluation



Design Prototype

A linear regression analysis was conducted using the questionnaire results as the explanatory variable and the shape characteristics of the design as the objective variable. This transformation matrix is used to convert the impression evaluation values to shape features. I implemented this system, including the user interface. Users can operate the six impression values using sliders and check the shape in real time. An example of a design prototype output by the system is shown in Figure 11. The first example aimed for an urban and luxurious impression, while the second focused on simplicity and approachability. I asked a designer who has designed cosmetic containers to use the system and gave me some comments. Simple feedback from designers has validated the system's effectiveness in generating practical design suggestions.

Figure 11: Examples of Design Prototypes Using the Proposed System



Limitation and Future Work

While our research provides valuable insights, I acknowledge several limitations. The current system only considers shape features, excluding color and texture. Future work should incorporate these additional elements and explore more sophisticated modeling approaches, such as deep learning. Although I have experimented with a simple multilayer perceptron, I have confirmed that it is difficult to output results in real time.

I also plan to conduct more extensive user testing. After developing an add-on for 3DCG modeling software and creating a realistic container, I would like to perform a general-purpose evaluation of the results of this prediction system.

Conclusion

I proposed a sensitivity evaluation method for cosmetics container design. Specifically, I analyzed the shape features of existing cosmetic containers and conducted an impression evaluation questionnaire to clarify the relationship between design and sensitivity evaluation. With the recent expansion of the men's cosmetics market, the establishment of a sensibility evaluation method for container design is expected to contribute to more effective product development.

In this study, shape features were first measured and analyzed for 50 cosmetic containers collected through a web search. The results of principal component analysis indicated that it

was difficult to reduce the dimensionality of the features of the existing method. Eight representative samples were then selected, and an online questionnaire survey was conducted using six adjective pairs. Data obtained from 51 respondents (30 males, 19 females, and 2 non-respondents) were analyzed and the following main results were obtained.

- The gender difference in the evaluation of impressions of cosmetic container design was significant for only four of the 48 items, indicating that the overall gender difference was small. Specifically, significant differences were found only in the questions "warm - cold," "hard - soft," and "urban - rural" for Sample 1, and in the question "luxurious - common" for Sample 7. This result is consistent with the results for the unisex container design. This result suggests the possibility of developing a unisex container design.
- Impression evaluation correlation analysis confirmed that although there was a slight correlation between "urban - rural" and "upscale - folksy," the other adjective pairs functioned as independent evaluation axes. From this, it was concluded that the selected adjective pairs adequately evaluated the different aspects of container design.
- The relationship between impression evaluation and shape features was modeled by linear regression analysis, and a system was constructed to generate container shapes that give the desired impression. This system enables designers to create container shapes that realize the impression they intend based on quantitative indices. The output results of the system show reasonable shapes that can withstand practical use, confirming its basic functionality as a design support tool.

By addressing the Future issues described in the previous section, a more practical sensibility evaluation system is expected to be realized. The findings obtained in this study demonstrate the effectiveness of the Kansei engineering approach in the field of cosmetic container design and are expected to serve as a basis for future research development.

Acknowledgments

This work was supported by Toyo University Top Priority Research Program.

References

Ida, A. (2012). Design development of cosmetic package which pursues KANSEI value. *Journal of the Society of Cosmetic Chemists of Japan, 46*(1), 2-6.

Ministry of Economy, Trade and Industry. (2024). METI Production Dynamic Statistics. Retrieved from https://www.meti.go.jp/statistics/tyo/seidou/result/ichiran/08_seidou.html

Miyamoto, F. (2011). Considerations in “Sensibility-to-mind type packaging”: An Effective Method for Creating New Categories in the Cosmetics Market. Japanese Journal of Administrative Science Volume 24, No.2, 2011, 93-107.

Miyamoto, F. (2020). Consumer recognition of product package "faces": A case study of cosmetic companies' "face culture". *Transcultural Management Society (No. 17), 2020*, 93-109.

Nagasawa, S., Tsai, P., & Yoshikawa, K. (2001). An empirical study on needs and positioning of men's cosmetics the bimonthly journal of Ritsumeikan University, Volume 40, No.2, 2001, 97-128.

NEO MARKETING INC. (2022). Survey on men's makeup. Retrieved November 22, 2024, from https://corp.neo-m.jp/report/investigation/fashion_024/

Qian, C. (2021). Study on factors affecting luxury impression of lotion bottles: From visual and auditory perspectives. Keio university, master thesis.

Sudo, H., Kokita, M., Shirono, R., Uozumi, W., & Kubo, H. (2010). Analysis method for evaluating emotional response to cosmetic container design. *Journal of Japan Society of Kansei Engineering, 9*(2), 403-410.

Suganuma, K. (2010). Consumer awareness and cosmetic trends examined by human sensitivities. *The society of cosmetic chemists of Japan, Vol.45*, No.3, 2011, 181-189.

Sung, I. (2021). Interdisciplinary literature analysis between cosmetic container design and customer purchasing intention (No. 7).

Takenouchi, M. (2001). General remarks on cosmetics. *Journal of the Japan Society of Colour Material, 74*(4), 205-210.

Toyota, M., Suetake, T., Watanabe, H., Senoo, M., & Jingu, H. (2009). Proposal of new design method for cosmetic containers: Package design expressing container contents through tactile sensation (No. 5).

Contact email: Tomokazu.Ishikawa@iniad.org

Identifying Educational Challenges: Insights From Myanmar Refugee Parents in Lowell, Massachusetts

Lugyi No, University of Massachusetts Lowell, United States
Ardeth Maung Thawnghmung, University of Massachusetts Lowell, United States

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
This study examines the educational challenges faced by Myanmar refugee parents in Lowell, Massachusetts, as they support their children within the U.S. school system. Using a qualitative approach, in-depth interviews were conducted with 13 parents from 10 families who have resided in the U.S. for over a decade. Analysis, supported by NVivo software, revealed three primary barriers: limited English proficiency, unfamiliarity with American educational norms, and economic hardships. These factors hinder parental involvement and reduce their capacity to assist in their children's education. Framed within Bourdieu's Cultural Capital Theory and Coleman's Social Capital Theory, the study interprets these challenges as a function of limited cultural resources and reliance on community networks. It proposes targeted interventions, including enhanced language support, culturally relevant parent education programs, and increased access to community resources. These measures aim to empower parents, enabling them to better support their children's academic success and integration, ultimately strengthening the resilience and social capital of the Myanmar refugee community in Lowell.

Keywords: Myanmar Refugees, Educational Challenges, Parental Involvement, Language Barriers, Cultural Differences

iafor
The International Academic Forum
www.iafor.org

Introduction

The United States has long offered refuge to individuals escaping conflict and persecution, with cities like Lowell, Massachusetts, becoming home to diverse communities, including many refugees from Myanmar. These families have fled decades of ethnic and political conflict, seeking safety and stability. Myanmar, also known as Burma, has faced prolonged internal strife since gaining independence in 1948, with a military regime taking control in 1962. The situation deteriorated further after a military coup in 2021, which triggered widespread protests, severe military crackdowns, and escalated into violent conflict and significant displacement. Many families, fleeing the intensified unrest, have since taken refuge in camps in neighboring countries such as Thailand, Malaysia, and Bangladesh. Many of these families now await opportunities for permanent resettlement through programs like the U.S. Refugee Admissions Program (USRAP), as well as other developed countries that accept refugees.

In Lowell, Myanmar refugee parents encounter substantial challenges in supporting their children's education within the U.S. school system. They face barriers such as limited English proficiency, unfamiliarity with American educational practices, and cultural differences, all of which affect their ability to engage in their children's schooling. These obstacles often limit parents' ability to support their children's academic progress and to engage fully in school and community activities, which in turn impacts the children's educational opportunities and sense of belonging within the community. While existing research highlights general educational challenges for refugee families, few studies focus specifically on Myanmar refugees. This study addresses this gap by examining the particular educational struggles faced by Myanmar refugee parents in Lowell and by proposing tailored strategies to support their children's educational success and integration.

Background

The United States has long been a destination for refugees seeking safety from conflict, with communities like Lowell, Massachusetts, becoming home to families from Myanmar escaping decades of ethnic and political turmoil. These families left Myanmar years ago due to prolonged ethnic and political unrest, driven by decades of military rule and armed conflict. Many sought stability and educational opportunities for their children and resettled in the U.S., joining over 26,000 individuals from Myanmar across Massachusetts, with approximately 377 now residing in Lowell (ZipAtlas, n.d.). While they are already resettled in the U.S., conditions in Myanmar have worsened since the 2021 military coup, which has led to further disruptions in essential services, increased displacement, and new waves of emigration for those still in the region.

Myanmar's conflict-driven migration began decades ago and intensified after the 2021 military coup, which severely impacted civilian life and forced many to flee. Most refugees spent years in neighboring countries, receiving critical resettlement support from international organizations like the International Organization for Migration (IOM). By 2023, over 1.4 million Myanmar refugees were registered across Thailand, Malaysia, and Bangladesh, where they received essential aid such as healthcare, shelter, and protection from trafficking. These programs also provided pathways for migration to countries like the United States. The U.S. Refugee Admissions Program (USRAP) facilitated resettlement in communities like Lowell, where refugee families contribute to cultural diversity and socioeconomic enrichment.

However, despite these supportive structures, the resettlement journey brings its own set of integration challenges. Parents, in particular, face the added responsibility of navigating a new educational system to support their children's learning and development. Adjusting to the U.S. educational environment, with its unique norms, expectations, and language demands, remains a considerable challenge for many Myanmar refugee families in Lowell, despite years of residence in the United States.

Literature Review

The integration of refugee families into the U.S. educational system presents a range of challenges, particularly for parents who support their children's education in a new cultural and linguistic environment (Dryden-Peterson, 2016). The city of Lowell, Massachusetts, hosts a significant number of refugee families, including approximately 377 individuals from Myanmar, reflecting broader global refugee trends (ZipAtlas, n.d.). Research on the adaptation of refugee families has consistently shown that successful integration relies heavily on overcoming various obstacles, including language proficiency, cultural adaptation, and economic stability.

Language Barriers

One of the primary challenges faced by refugee parents is language proficiency. For many, limited English fluency restricts their ability to communicate effectively with teachers, understand school materials, and provide direct academic support to their children (Cummins, 2008). Language barriers not only limit involvement in school activities but also affect parents' confidence in engaging with the broader school community, often leading to isolation and reduced support for their children's educational journey (Olguín, 2021). Kirova (2001) notes that this language disconnect can be particularly pronounced in refugee families, where parental involvement in education is crucial for children's academic and social adjustment.

Cultural Differences in Parental Involvement

Refugee parents frequently experience cultural clashes between their traditional educational roles and the expectations within U.S. schools. Parental involvement in American schools often entails activities such as volunteering, attending meetings, and assisting with homework—practices that assume familiarity with U.S. educational norms (Turney & Kao, 2009). However, these expectations may differ from the cultural perspectives of many immigrant and refugee parents, who might view their role as primarily providing moral and social support rather than engaging directly with school activities (Isik-Ercan, 2012; Matthews, 2008). For many immigrant and refugee families, including those from Myanmar, this disconnect complicates their adaptation to the U.S. educational environment and may hinder effective engagement in their children's schooling due to differing cultural assumptions about parental roles (Isik-Ercan, 2012; Matthews, 2008; Turney & Kao, 2009).

Economic Challenges Impacting Educational Involvement

Economic instability is a common issue among refugee families and often limits parental involvement in education. Many refugee parents work long hours or multiple jobs to support their families, leaving little time or energy for school-related activities (Dryden-Peterson, 2016). Financial constraints further restrict access to educational resources, extracurricular activities, and additional support services, thereby hindering their children's academic progress

(Kerwin, 2018). Such financial burdens complicate the ability of many refugee families to prioritize and actively participate in their children's educational experiences.

While prior studies have highlighted various barriers faced by refugee families in the U.S., research specific to Myanmar refugees remains limited. While existing studies have examined educational challenges among refugee populations (Cummins, 2008; Hill & Tyson, 2009; Matthews, 2008), few specifically address the unique experiences of Myanmar families adapting to American schools. This study addresses this gap by providing detailed insights into the specific struggles of Myanmar refugee parents in Lowell, examining language, cultural, and economic barriers, and proposing targeted interventions to improve support for these families within the educational system.

Methodology

Using purposive sampling, 13 parents from 10 families were selected based on criteria including at least 10 years of U.S. residency, former refugee status, and having school-aged children in the family. In-depth interviews were conducted to explore the educational challenges these parents face. Data were analyzed through thematic analysis using NVivo software, which enabled systematic coding to identify key themes across participant responses.

Theoretical Framework

This study is grounded in Bourdieu's Cultural Capital Theory and Coleman's Social Capital Theory. Cultural capital—encompassing language skills, educational resources, and formal qualifications—significantly influences parents' ability to support their children within the U.S. educational system (Bourdieu, 1986). In parallel, social capital, derived from community networks, provides essential support and resources that can help bridge gaps in cultural capital (Coleman, 1988). Together, these theories provide a framework for understanding the challenges Myanmar refugee parents encounter as they navigate educational and social integration for their children.

Findings

Theme 1: Educational Support Challenges

The findings reveal that many Myanmar refugee parents in Lowell face significant challenges in supporting their children's education. Many parents emphasized their limited formal education as a key barrier, which affects their confidence in actively participating in their children's education. As one parent expressed, "The biggest challenge is my lack of formal education, which limits my ability to help my children with their schoolwork. It has been very difficult for me to assist them academically." For some parents, this limitation leads to reliance on community resources, such as after-school programs for their children and assistance from community members for translation and interpretation when communicating with school staff, highlighting their need for external support.

A considerable number of parents also struggled with understanding the U.S. education system, which differs significantly from their previous experiences. One participant noted, "I don't understand the education system here and I cannot support my children's homework due to my language barrier." This unfamiliarity complicates their efforts to assist their children effectively.

Economic hardships add another layer of difficulty. Many parents work long hours, limiting the time available to support their children. One parent described the impact of these demands, sharing, "Life here is not easy. A single income is insufficient for our family, necessitating both of us to work... without proper days off. This leaves us with little time to adequately care for our children." This statement reflects the significant economic challenges faced by refugee families, where financial pressures require both parents to work long hours. Consequently, they have little time to provide the emotional and educational support their children need.

Theme 2: Parents' Perceptions of the Value of Education

The findings also illustrate the high value Myanmar refugee parents place on education, shaped by their experiences and aspirations for their children's futures. Many parents view education as a pathway to better opportunities and stability. One parent shared, "All I want for my children is to become educated and lead a good life. If they can help the community and contribute to society, it will be a blessing for us." This perspective underscores the importance of education not only for personal success but also for community well-being.

One mother expressed, "I really wanted to become an educated person and wanted to study badly when I was young. But I didn't get a chance to do that. But I am so glad and proud my daughters are getting a good education." For these parents, education is not only a means to overcome the difficulties they faced in their own lives but also a pathway to a more stable and secure future for their children. It represents hope and the possibility of breaking the cycle of hardship, allowing the next generation to thrive and contribute positively to society.

Furthermore, parents hope for better career opportunities for their children, with one stating, "I do wish my kids become well educated, get a good job and have a better life and help others." This strong emphasis on education reflects their desire to build cultural capital, which is essential for their children's success in a competitive job market. Another parent noted, "Back in the refugee camp in Thailand, we didn't have formal education or many opportunities... Here they have all the opportunities with the best education system in the world." This statement illustrates the significant contrast between their past experiences and the educational prospects available in the U.S. It underscores the belief that access to quality education can empower their children to achieve their goals, secure better futures, and ultimately contribute positively to society.

Theme 3: Communication Barriers Between Parents, Children, and Educational Institutions

The findings reveal that language barriers and cultural differences present significant challenges for Myanmar refugee parents in engaging with the U.S. educational system and supporting their children. Understanding school communications is a struggle for many parents, who find it challenging to interpret school notices, emails, and assignments. One parent expressed, "As I said, the language barrier makes it challenging to understand school notices, emails, assignments, etc." Additionally, during parent-teacher meetings, language support often falls short. "During parent and school meetings, there are translators for other languages...but not for Myanmar," shared one parent, leading some to withdraw from school events due to these barriers.

Language barriers also affect parent-child communication, complicating family relationships and hindering parents' ability to support their children academically. "For my son, when we arrived here, he was so young...we had less interaction. That's what I regret most," one parent noted, illustrating how reduced communication impacts family bonds. This aligns with Coleman's (1988) concept of social capital, where effective communication within families is essential for academic success.

Cultural differences further complicate parental involvement. One parent remarked, "We trust teachers completely and do not question their methods, but here we parents are expected to actively involve in our children's education." This statement highlights a significant cultural gap: while many Myanmar parents have a deep respect for teachers and their authority, U.S. educational expectations often require parents to take a more proactive role in their children's schooling. As a result, this disconnect can make it difficult for Myanmar parents to engage in ways that U.S. schools anticipate, ultimately hindering their ability to effectively support their children's educational success. Some parents shared regret over outcomes that diverge from their hopes, such as early marriage due to weakened parental influence: "I often feel regret because my daughter married very early...our parenting skills are less effective because of the language barrier and cultural differences." This situation illustrates how language barriers and cultural differences can prevent parents from effectively guiding their children in both their academic and personal lives.

Discussion

The findings reveal significant barriers faced by Myanmar refugee parents in supporting their children's education in Lowell, Massachusetts, particularly in navigating language, cultural, and economic challenges. Language barriers hinder these parents' ability to communicate with teachers, understand school materials, and provide direct academic assistance, a challenge noted across immigrant populations (Cummins, 2008; Olguín, 2021). Furthermore, many parents expressed unfamiliarity with the U.S. educational system, which differs substantially from Myanmar's educational norms, complicating their efforts to support their children's learning. This disconnect echoes Turney and Kao's (2009) findings that cultural gaps in parental involvement can exacerbate integration challenges for refugee families.

Parents also emphasize the high value they place on education as a pathway to improved social and economic stability for their children. Many view education as a means to overcome past hardships, reflecting Waters and Pineau's (2015) findings that refugee families see educational attainment as essential for future success. Yet, economic hardships, including long working hours and the resulting fatigue, significantly hinder parents' ability to engage in their children's education (Dryden-Peterson, 2016; Kerwin, 2018). This lack of time limits their ability to provide academic support, access tutoring, and participate in extracurricular activities. This situation underscores the need for community support and structured programs that can provide these parents with the necessary tools and resources to overcome these challenges, enabling them to be more actively involved in their children's academic lives.

These findings highlight the need for targeted support services, including translation assistance for communication with teachers, workshops on the U.S. educational system, and community programs that provide tutoring and academic resources to help Myanmar refugee parents effectively support their children's education. As Bourdieu's (1986) concept of cultural capital and Coleman's (1988) social capital theory suggest, creating networks that link families to

school resources can promote a more inclusive educational environment and improve the academic success and integration of refugee students.

Conclusion

This study highlights the significant barriers faced by Myanmar refugee parents in Lowell, Massachusetts, including language limitations, unfamiliarity with the U.S. educational system, and time constraints from long working hours. Despite these challenges, parents value education as a key to better opportunities for their children. To effectively support these families, targeted initiatives such as translation assistance, educational workshops, and community programs that provide academic tutoring and mentorship for students are essential. By providing these resources, we can empower parents to engage more actively in their children's education, fostering academic success and facilitating smoother integration into the community.

Acknowledgments

This research was supported by a grant from the Theodore Edson Parker Foundation. The authors wish to thank the foundation for its generous support, which enabled the study on the educational challenges faced by Myanmar refugee parents in Lowell, Massachusetts. The findings and conclusions presented in this paper are those of the authors and do not necessarily reflect the views of the foundation.

References

Bourdieu, P. (1986). The Forms of Capital. In J. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education* (pp. 241-258). New York: Greenwood. https://www.marxists.org/reference/subject/philosophy/works/fr/bourdieu-forms-capital.htm

Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. *American Journal of Sociology*, *94*, S95–S120. http://www.jstor.org/stable/2780243

Cummins, J. (2008). BICS and CALP: Empirical and Theoretical Status of the Distinction. In *Springer eBooks* (pp. 487–499). https://doi.org/10.1007/978-0-387-30424-3_36

Dryden-Peterson, S. (2016). Refugee education in countries of first asylum: Breaking open the black box of pre-resettlement experiences. *Theory and Research in Education*, *14*(2), 131-148.

Dryden-Peterson, S. (2016). Refugee Education. *Educational Researcher*, *45*(9), 473–482. https://doi.org/10.3102/0013189x16683398

Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: A meta-analytic assessment of the strategies that promote achievement. *Developmental Psychology*, *45*(3), 740–763. https://doi.org/10.1037/a0015362

IOM. (2023). *Bangladesh crisis response plan 2024*. Retrieved from https://crisisresponse.iom.int/sites/g/files/tmzbdl1481/files/uploaded-files/iom-bangladesh-appeal-2024.pdf

IOM. (2023). *Country reports and initiatives: India*. Retrieved from IOM India.

IOM. (2023). *Country reports and initiatives: Malaysia*. Retrieved from https://www.iom.int/countries/malaysia

IOM. (2023). *Mobility tracking baseline assessment – Myanmar migrants (October 2023).* Retrieved from https://dtm.iom.int/sites/g/files/tmzbdl1461/files/reports/IOM%20DTM%20FM%20Report%20Thailand_JanJun23_20230831.pdf

Isik-Ercan, Z. (2010b). Looking at School from the House Window: Learning from Turkish-American Parents' Experiences with Early Elementary Education in the United States. *Early Childhood Education Journal*, *38*(2), 133–142. https://doi.org/10.1007/s10643-010-0399-8

Kerwin, D. (2018). The educational and mental health needs of Syrian refugee children. *Migration Policy Institute.*

Kirova, A. (2001). Loneliness in Immigrant Children: Implications for Classroom Practice. *Childhood Education*, *77*(5), 260–267. https://doi.org/10.1080/00094056.2001.10521648

Matthews, J. (2008). Schooling and settlement: Refugee education in Australia. *International Studies in Sociology of Education*, *18*(1), 31-45.

Olguín, B. (2021). Educational strategies and challenges in Latin America: Voices from immigrant parents in the United States. *Comparative Education Review*, *65*(2), 203-221.

Turney, K., & Kao, G. (2009). Barriers to School Involvement: Are Immigrant Parents Disadvantaged? *The Journal of Educational Research*, *102*(4), 257–271. https://doi.org/10.3200/joer.102.4.257-271

Waters, M. C., & Pineau, M. G. (Eds.). (2015). *The integration of immigrants into American society*. National Academies Press.

ZipAtlas. (n.d.). Largest Burmese community by city. Retrieved from https://zipatlas.com/us/ma/city-comparison/largest-burmese-community.htm

Contact emails: Lugyi_No@student.uml.edu
Ardeth_Thawnghmung@uml.edu

Miniature Worlds, Material Power: Objects and Agency in Jessie Burton's "The Miniaturist"

Rasha Osman Abdel Haliem, Higher Technological Institute, Egypt

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Jessie Burton's *The Miniaturist* invites readers into a world where the miniature serves as a microcosm of societal complexities. Through the intricate dollhouses and their inhabitants, the novel delves into the blurred lines between objects and subjects in 17th century Netherlands. This paper employs a close reading approach to analyze the symbolic significance of the miniature figures within the narrative. By examining the tension between the human and the doll, the authentic and the artificial, and the interior and exterior spaces, this study enforces the impact of materialism on characters' decisions. The analysis reveals that the miniature figures are not merely passive objects but active participants in the narrative. They negotiate key dichotomies, challenging the rigid boundaries between the real and the imagined, the living and the inanimate. Burton shows the pervasive influence of consumer culture, where material possessions can both satisfy and enslave. The meticulous craftsmanship of the miniature figures symbolizes the allure of materialism, while the characters' struggles with their desires highlight the dangers of being consumed by material possessions. The paper contributes to ongoing scholarly discussions about the relationship between material culture and identity, offering a fresh perspective on the ways in which objects can shape readers' perspectives. By exploring the tension between individual desires and societal expectations, the novel invites readers to consider how one can choose to live a meaningful life that is not governed by materialism and consumerist values.

Keywords: Dolls, Puppets, Cabinet House, Sugar, Miniature, *Sapient Agency*, Object, Commodification, Capitalism, Calvinist Ethics, Human Subjectivity

iafor
The International Academic Forum
www.iafor.org

Introduction

The allure of miniature worlds has long captivated human imagination, offering a lens through which to examine the complexities of life on a smaller, more manageable scale. In Jessie Burton's *The Miniaturist* (2014), this fascination takes center stage, as a meticulously crafted dollhouse becomes a mirror of 17th century Dutch society, reflecting its values, tensions, and contradictions. Through the interplay of objects—miniature dolls, sugar, and other commodities—the novel explores how material possessions transcend their physical forms to influence identity, power, and morality. By blurring the lines between the animate and inanimate, Burton challenges conventional distinctions, revealing the profound ways in which objects shape human experiences and societal structures. This paper analyzes the symbolic significance of the miniature figures, arguing that they serve as active agents within the narrative, interrogating themes of consumerism, colonialism, and the fragile boundaries between reality and illusion. In doing so, the study underscores Burton's critique of materialism and invites readers to reconsider the ethical and emotional dimensions of their relationship with the material world.

Dolls and Human Materiality

The fascination with human-like constructs—dolls, puppets, wax effigies, and sculptures—is a perennial and multifaceted phenomenon. Rooted in ancient funerary practices, these artifacts served as vessels for the deceased, maintaining their spiritual presence within the realm of the living. From Neolithic skulls to Egyptian mummies and Roman effigies, these cultural touchstones reveal the enduring power of art to bridge the living and the departed. Across cultures and eras, these figures exerted profound influence on both the physical and spiritual realms. As material engagements with mortality, they fostered social memory while prompting philosophical inquiry into embodiment and disembodiment.

Masks, dolls, and puppets in early death cults functioned as mnemonic devices, visually representing and, in a sense, resurrecting the deceased. Across cultures and eras, these arcane figures—whether doubles, stand-ins, or equivalents—exerted profound influence on both the physical and spiritual realms. As material engagements with mortality, they fostered social memory while prompting philosophical inquiry into embodiment and disembodiment (Belting, 2011, p. 93). In this context, eidolons, precursors to modern dolls, emerge as "sapient objects" bridging the mind-body divide (Miller, 2005, p. 34). As liminal entities, they connected the tangible and intangible worlds, demonstrating the grounding of the immaterial in the material (Miller, 2005, p. 6).

Contemporary discourse on materiality and transcendence is shaped by Plato's idealism, which prioritized ideas over matter, separating body from soul and life from imitation. This marked a shift from ancient traditions, such as Egyptian practices that infused materiality with divine significance through mummification (Belting, 2011, p. 108). For Plato, eternity resided in the immaterial realm, reducing eidolons to metaphors for death—mere artistic imitations divorced from spiritual or metaphysical certainty (Belting, 2011, p. 111). As Victoria Nelson (2001) argues, modern "postreligious" culture continues this legacy, marginalizing and aestheticizing artificial beings like puppets and robots as symbols of repressed spiritual impulses (p. 20). Plato's influence thus endures, shaping how we navigate the tension between materiality and transcendence.

Ancient cultures, far from being solely spiritual, embraced a vibrant culture of play. Clay toys were often used as wedding offerings to goddesses in ancient times (Miller, 2005, p. 7). The Latin root of "puppet," meaning "newborn child," reflects the multifaceted role of dolls in society (Belting, 2011, p. 100). Today, dolls and puppets provoke discussions on life, death, creation, and consciousness, tying into debates on artificial intelligence, sentience, and the fusion of biology and technology (O'Connell, 2017, p. 77; Riskin, 2016, p. 55). Anthropomorphic machines, rooted in ancient and medieval automata like moving toys and clockwork mechanisms, served as early models for understanding life, influenced by atomism and mechanistic philosophies (Riskin, 2016, p. 38; Truitt, 2015, p. 34).

During the medieval period, automata were used to explore the relationship between representation and divinity, often dramatizing spiritual themes (Riskin, 2016, p. 22). With the Reformation, however, their role shifted into the secular realm, reflecting broader societal changes (Riskin, 2016, p. 28). This transition marked the decline of the divine monopoly on agency, as lifelike machines, such as mechanical dolls, began to challenge traditional notions of creation and autonomy. The Reformation's hostility toward such objects reflected its discomfort with mechanistic interpretations of life, a perspective further intensified during events like the witch hunts of 17th century New England (Kuznets, 1994, p. 14). By the 17th century, atomism and a mechanistic view of the body gained prominence, championed by Descartes, who described the body as a machine governed by material forces, distinct from the mind (Riskin, 2016, p. 45). Descartes popularized the clockwork metaphor to explain natural phenomena, while automata were used as tools to model the "hidden corpuscular mechanisms of natural bodies" (Tiffany, 2000, p. 53). Mechanism evolved into a state of passivity, controlled by external forces, and paradoxically led to the argument from design, where mechanical order in nature was seen as evidence of divine creation (Riskin, 2016, p. 47).

Despite their practical and symbolic uses, atomism and mechanism faced contradictions. Atomism grappled with the mind-body problem, while mechanism struggled with the agency-passivity dichotomy. Automata, as products of atomistic metaphysics, embodied the paradox of "materiality founded on immateriality" (Tiffany, 2000, p. 49). Mechanical dolls, representing invisible matter, symbolized science's quest to uncover hidden structures while echoing the mythical origins of this pursuit. They acted as tools of inquiry and symbols of mystery, reflecting the dual nature of scientific exploration (Tiffany, 2000, p. 52).

The Cartesian view of the human subject as a disembodied mind has been challenged by New Materialist thought, which emphasizes the interplay between subject and object in shaping power, social structures, and material practices. Scholars such as Arjun Appadurai, Bill Brown, Steven Connor, Bruno Latour, and Daniel Miller highlight the interconnectedness of human subjectivity and the agency of material objects. Latour's actor-network theory (1993) argues that humans and nonhumans are co-constitutive, dissolving the ontological divide between them. This perspective critiques modernity's marginalization of nonhuman actors and proposes a collective network of humans and things that shapes our world beyond anthropocentric frameworks. This interconnected perspective is crucial in the globalized market, where the movement of goods and ideas underscores human-nonhuman interdependence (Appadurai, 1986, p. 55). Brown and Connor expand on Latour's ideas, with Brown's (2001) 'Thing Theory' distinguishing objects, which function transparently, from things, which reveal hidden dimensions when disrupted. Similarly, Miller (2005) notes the unconscious influence of objects in daily life, further illustrating the agency of material entities often overlooked in human-centered narratives.

The concept of "things" is multifaceted, reflecting the interplay of subjectivity and materiality. Brown highlights the shared vulnerability between humans and things, with their interactions shaping relationships of creation, kinship, and consumption (Brown, 2001, p. 20). Connor (2010) reinterprets mind-body dualism, viewing thinking as a material process rooted in embodied experience. Thoughts emerge through material objects, creating a reciprocal relationship between mind and matter and framing thinking as a form of self-reflection (p. 45). Humans and things share a paradoxical relationship, with "thinking things" embodying both abstraction and concreteness, presence and absence (Connor, 2010, p. 56; Miller, 2005, p. 58). Aligned with New Materialism, this perspective supports Miller's "sapient materiality" and Latour's hybrid agency, bridging the gap between organic and artificial life. It fosters a relational ontology where material and immaterial forces shape ethical and intellectual frameworks, prompting a reevaluation of objects like dolls and puppets as intelligent agents within networks of meaning and value.

Miniature Worlds, Moral Economies: Dolls and Power in *The Miniaturist*

The preceding overview establishes a theoretical framework for examining the role of dolls in Jessie Burton's *The Miniaturist*. Brown's distinction between objects and things proves particularly relevant as the novel's miniature dolls transcend their materiality to become agents of social change within the intricate web of 17th century Dutch society. These dolls, deeply intertwined with the novel's miniature house, reflect the power dynamics and social hierarchies of the Brandt household, mirroring tensions between public and private, visible and hidden, and the authentic and the constructed. While grounded in a historical setting, Burton's narrative also serves as a reflection on present-day life, exploring themes of identity, control, and the fragile boundaries between appearance and reality. *The Miniaturist* navigates the complex interplay of material and immaterial realms, suggesting that human existence is inherently marked by limitations and exchanges.

Dolls, once primarily associated with children's literature, have emerged as complex figures in adult fiction. Novels such as Keith Donohue's *The Motion of Puppets* (2016), Robert Dinsdale's *The Toymakers* (2018), Nina Allan's *The Doll Maker* (2019), Elizabeth Macneal's *The Doll Factory* (2019), and Ian McEwan's *Machines Like Me* (2019) challenge anthropocentric narratives by attributing agency and consciousness to dolls. Kenneth Gross (2011) observes that puppets act as intermediaries between humans and objects (pp. 13, 23). These inanimate objects, brought to life through human imagination, question the boundaries between creator and creation, exposing the provisional nature of identity and existence. Positioned between the animate and inanimate realms, dolls and puppets serve as emissaries of the material world and moral companions. Unlike statues, puppets actively engage audiences through play, emphasizing shared agency between humans and objects. As societal allegories, puppets reflect contemporary fascination with technology and the increasingly blurred boundaries between humans and machines (Gross, 2011, p. 88).

Originating in children's folklore and evolving into mechanized representations, puppets encapsulate the complexities of life and artifice. Burton's *The Miniaturist* provides a compelling context for exploring these themes, situating dolls within the emerging capitalist marketplace and challenging traditional distinctions between animate and inanimate existence. The novel begins with a visual replica of Petronella Oortman's cabinet house, inviting readers to interact with the text as though it were a museum exhibit. This interplay between image and narrative fosters a dynamic relationship between the physical and the fictional. The cabinet house, filled with miniature dolls, embodies the spirit of play, a concept

central to both puppetry and art. As Gadamer (2012) observes, "All presentation is potentially a representation for someone," inviting readers to actively participate in the narrative (p. 108). Like Petronella, readers become participants in a 17th century world. The novel mirrors the cabinet house, serving as a fictional counterpart to a historical artifact and emphasizing the ethical implications of representation and duplication.

Burton's critique of consumerism in *The Miniaturist* is intricately woven into the narrative, with the dollhouse serving as a central metaphor for the obsession with material possessions. This meticulously crafted miniature replica of the Brandt household reflects the desire for control, perfection, and ownership. Through Nella's growing fascination with the dollhouse and her eventual obsession with its contents, Burton illustrates how consumerism can seduce individuals, consuming their lives and distancing them from authenticity, ultimately leading to a sense of emptiness. This critique gains depth through the dollhouse's role as a microcosm of the Brandt household, mirroring the complexities of domestic life. Nella Oortman, a young bride entering her new home with anxiety, symbolizes this disconnection as her hesitant knock at the door reflects her uncertainty about the future. Her hopes for intimacy are soon dashed when her husband, Johannes, retreats into his study, leaving her isolated (Burton, 2014, p. 21). Instead of emotional closeness, Johannes offers her the dollhouse, a substitute for their absent marital relationship. Stewart (1993) argues that dollhouses exist outside the realm of bodily experience (p.63). This underscores the emotional distance between Nella and Johannes. This miniature replica of their home becomes a poignant symbol of their isolated existence, emphasizing both the loneliness within marriage and the broader societal consequences of prioritizing material perfection over genuine human connection (Burton, 2014, pp. 39, 88, 112).

Johannes's marriage to Nella, undertaken to conceal his homosexuality and conform to societal expectations, further complicates their relationship. The dollhouse becomes a metonym for Johannes himself, reflecting his hidden complexities and the tension between public and private identities (Sedgwick, 2008, p. 98). The wooden cabinet, traditionally associated with mortality, foreshadows deeper secrets and mysteries within the Brandt household. Through this gift, Nella enters a world of appearances and hidden truths, mirroring the duality of their lives. The dollhouse also serves as a catalyst for Nella's imagination, allowing her to construct narratives within its miniature world (Bachelard, 2014, p. 170). This underscores a symbiotic relationship between the human mind and material objects, echoing Connor's concept of the "thinking thing" (2010, p. 3).

While Johannes presents the dollhouse as an educational tool "for her education," Nella perceives its deeper significance (Burton, 2014, p. 45). As she becomes increasingly captivated by the cabinet's interior, the dollhouse begins to assert its own agency, creating a sense of unease. Initially a symbol of innocence and domesticity, it transforms into a haunting presence, revealing the hidden truths of the Brandt household (Stewart, 1993, p. 62). Its stark emptiness contrasts with the opulent surroundings of the Brandt home, highlighting the disparity between outward appearances and internal realities. Nella's and Marin's rooms further explore these contrasts. Nella's room, adorned with luxury, reflects societal expectations of wealth and respectability, while Marin's room is a sensory overload, filled with exotic objects symbolizing her intellectual and personal longings. Marin's maps and eclectic collection reflect her desire for knowledge and adventure, restrained by societal constraints (Burton, 2014, pp. 12, 14-15, 51). Marin's room becomes a private sanctuary, a space where she can explore her passions in a symbolic and restricted manner.

The Brandts' material possessions are inextricably linked to the colonial exploitation underpinning 17th century Dutch prosperity. As a sugar trader for the East India Company (VOC), Johannes profits from a system that connects European wealth to the suffering of African slaves (Trentmann, 2016, p. 128). Marin cynically observes her brother's ability to transform "mud to gold," highlighting the exploitative nature of their wealth (Burton, 2014, p. 42). The opulence of their lifestyle, tied to the Dutch mercantile empire, masks moral complexities (Israel, 1998, 55). As Nella notes, Amsterdam is consumed by commerce: "…all things here have one purpose – the raw end of commerce, the storing of supplies, the repair of ships, the sustenance of sailors and captains alike" (Burton, 2014, p. 295). The novel reveals how this system dehumanizes all involved, with Johannes becoming a victim of the very enterprise that sustains his wealth and status.

The Brandt household's wealth is deeply intertwined with the Dutch colonial enterprise, which profited from the exploitation of people and resources alike. Sugar, a key commodity, epitomizes this connection, symbolizing both economic prosperity and the human cost of colonialism. Through the character of Otto, Johannes' Black manservant, the novel underscores the racial hierarchies and prejudices of the time, as seen in Marin's contemptuous remark: "'They've brought the savage,' she whispers in earshot to her husband, her eyes riveted on Otto" (Burton, 2014, p. 120). Otto's presence in 17th century Amsterdam draws attention to the dehumanization embedded in colonial practices and its intersections with wealth accumulation. Burton's narrative extends beyond historical critique to comment on contemporary consumerism and its parallels with modern forms of colonialism and exploitation. The global supply chains of the modern era, much like the mercantile networks of the Dutch Republic, rely on the exploitation of labor and resources in the Global South to fuel the consumer desires of the Global North (Smil, 2022, p. 45). The novel draws subtle connections between the commodification of sugar and the commodification of goods today, critiquing how economic systems prioritize profit over human dignity.

The exploration of objects in *The Miniaturist*—from sugar to dolls and games like verkeerspel—reveals the intricate interplay of economic, social, and sexual dynamics. As Frank Trentmann (2016) observes, "Things […] recruit us into politics as much as we recruit them," underscoring the agency and power of objects in shaping human relations. Burton highlights how the circulation of goods and people forms identities, power structures, and social hierarchies, both in the 17th century and in the present day (p. 300). By drawing these parallels, the novel critiques the persistent cycles of exploitation that underpin consumer culture and global economic systems.

Building on the critique of consumerism and colonial exploitation, the Brandts' collection of life paintings further reflects the tension between material success and spiritual fulfillment. These artworks, symbols of abundance and reminders of mortality, align with the Calvinist work ethic while exposing the ambiguous relationship between wealth and moral values (Davenport, 1998, p. 9; Weber, 2005, p. 64). The juxtaposition of sugar with other luxury goods—such as "Delft plates, casks of wine branded Espanã and Jerez, boxes of vermilion and cochineal, mercury for mirrors and the syphilis, Persian trinkets cast in gold and silver"—highlights the moral complexities of wealth (Burton, 2014, p. 296). Johannes' eventual downfall underscores Simon Schama's (1987) observation that Dutch society's prosperity ultimately sowed the seeds of its own demise (p. 47).

Within this context, *The Miniaturist* delves into the intricate interplay between public morality and private desire, with sugar serving as a recurring motif. While not depicted as gluttonous, the characters navigate the tensions between Calvinist restraint and the allure of indulgence. Sugar, often associated with luxury and transgression, transcends geographical and symbolic boundaries, mirroring the characters' internal conflicts. Both Johannes and Marin are drawn to the pleasures and consequences tied to this substance, sugar, becoming a metaphor for their transgressions. Marin's unexpected pregnancy and Johannes' exposure as a "sodomite" (a 17th century contemporary term for homosexual men) reveal the chasm between public image and private reality. This dynamic between societal expectations and personal desires reflects the broader themes of *The Miniaturist*. The Brandt household's tensions, framed by the materiality of objects like sugar, highlight the interplay of power, desire, and social conformity, further critiquing the cycles of exploitation and the moral ambiguities of consumer culture. The novel suggests that these tensions—whether in the 17th century or today—continue to shape individual lives and societal structures.

Burton demonstrates that even in a consumerist society, individuals possess the agency to shape their own destinies. While consumerism can strongly influence choices and values, it does not ultimately dictate outcomes (Stearns, 2023, p. 34). Decisions, actions, and attitudes remain pivotal in charting one's life path. Burton shows that by cultivating self-awareness, developing resilience, and making intentional choices, individuals can navigate the complexities of consumer culture and build lives that reflect their personal values and aspirations. However, agency exists alongside the role of fate, as unforeseen events and external circumstances can significantly shape one's trajectory. Even in the face of these uncertainties, individuals retain the ability to adapt, seize opportunities, and make choices that align with long-term goals. This is evident in Nella's reflections and her decision to work, to care for the newborn, and to adapt to her new situation (Burton, 2014, pp. 296-297).

Recognizing the interplay between agency and external forces enables a more resilient and purposeful approach to life. Burton's *The Miniaturist* reflects this theme as it examines the Brandts' material prosperity and the pervasive influence of Calvinist morality. Beneath the façade of piety, the characters grapple with hidden desires. Marin, for example, engages in acts of quiet rebellion, including a secret love affair and indulgence in forbidden sweets. Similarly, Johannes defies societal norms through his romantic relationship with Jack Philips. These transgressions underscore the tension between societal expectations and personal agency, highlighting the characters' struggles to reconcile their public lives with their private desires.

The dollhouse becomes a metaphorical space where themes of desire, secrecy, transgression, fate, and personal choice converge enforcing the intricate interplay between material possessions, social status, and personal desires. The Brandts' outward respectability conceals a private world of hidden passions and moral complexities. This duality underscores the tension between the material and spiritual, revealing their interconnected and mutually influential nature. Nella's initial request for specific items evolves into a series of unexpected deliveries, including a cradle, chairs, and miniature dogs resembling the family pets. Among these is a defiant, all-capitalized message: "EVERY WOMAN IS THE ARCHITECT OF HER OWN FORTUNE" (Burton, 2014, p. 76).

The arrival of miniature figures representing the Brandt household deepens the intrigue and subversion. These dolls, "so life-like, so delicate," provide a distorted reflection of reality (Burton, 2014, p. 78). Johannes' miniature figure is particularly haunting, embodying both

his power and vulnerability: “Johannes lies in her palm, a cloak of dark indigo slung over his broad shoulders, one hand balled into a fist. The other hand is open, palm offered and welcoming” (Burton, 2014, p. 78). The doll’s physical characteristics, including the heavy coin bag that “weighs him crookedly to one side,” symbolize the immense pressures and burdens he carries (Burton, 2014, p. 78). Through these vivid details, the novel highlights the complex relationships between identity, material objects, and the hidden dimensions of human experience.

The dolls in *The Miniaturist* not only reflect the characters’ internal struggles and external circumstances but also symbolize the dynamic interplay between agency and fate. The miniature Nella doll, with her escaped hair and surprised expression, mirrors the protagonist’s own sense of disorientation. Holding an empty birdcage, the doll hints at both change and the possibility of freedom. The accompanying note, written in bold capital letters—“THINGS CAN CHANGE”—underscores this theme of potential transformation. The dollhouse, as a microcosm of the Brandt household, blurs the boundaries between public and private life. Susan Stewart’s concept of the dollhouse as a metonym for broader property relations is particularly relevant here (Stewart, 1993, p. 67). By situating the dolls as both objects of consumption and agents of social learning, the novel suggests that material objects can influence personal and societal understanding (Bachelard, 2014, p. 66; Burton, 2014, 88). Nella’s interaction with her miniature becomes a vehicle for self-exploration, enabling her to reflect on her identity and position within the social order. This process ultimately underscores the ways in which individuals can actively shape their destinies, even while navigating societal expectations and external constraints.

Nella’s dollhouse functions as both a tool for cultural education and a vehicle for social commentary. It introduces her to societal norms, prepares her for the role of household matriarch, exposes hidden truths about human nature, and critiques the novel’s Calvinist framework. These lessons parallel Nella’s personal journey of self-discovery and her deepening understanding of social complexities. The dolls within the cabinet embody both idealized and transgressive facets of human nature. Their creation and delivery by Jack Philips, a figure associated with criminality and violence, further underscore the dollhouse’s role in unmasking hidden truths. This subversion of societal expectations reflects the novel’s broader themes of agency, fate, and personal choice. The miniature gingerbread people, perfect replicas of real cookies, challenge Calvinist ideals by evoking idolatry, a subtle act of rebellion that mirrors Nella’s defiance against societal constraints and her pursuit of personal freedom. The miniaturist’s work underscores the subversive power of art and the porous boundary between reality and representation.

Nella’s doppelganger within the dollhouse mirrors her own transformative journey. Historically, objects like tamburi were used as repositories for anonymous reports of societal transgressions (Terry-Fritsch, as cited in McCall et al., 2013, p. 162). Similarly, the dollhouse becomes a vessel of hidden truths. Nella’s evolution from passive observer to empowered individual parallels the dollhouse’s role in containing and revealing secrets. This interplay between the dollhouse and Nella’s journey aligns with the novel’s exploration of blurred boundaries between humans and objects. Kenneth Gross’s (2011) concept of the puppet as a medium for unspoken truths applies to the dolls in the cabinet (p. 18). These “sapient objects” offer profound insights into the characters’ lives (Miller, 2005, p. 34). For example, the doll representing Marin, described as a “nub, a walnut, a nothing-yet, but soon-to-be,” foreshadows her pregnancy (Burton, 2014, p. 286). The subsequent birth of the child further blurs the lines between human and object, as the newborn is described as “neither fish nor

fowl, nor godly nor human, and yet strangely all these things at once" (Burton, 2014, p. 352). Ultimately, the dollhouse serves as a microcosm of the novel's central themes, illustrating the interconnectedness of humans and objects. Both are imbued with agency, capable of revealing hidden truths, and central to the exploration of identity, power, and the limits of societal constructs.

The contrast between the dollhouse and verkeerspel in *The Miniaturist* highlights two distinct approaches to social engagement. While the board game reflects a strategic, outward-facing approach to navigating societal codes, the dollhouse explores the interiority of human experience. As a microcosm of domestic life, the dollhouse foreshadows the 18th century emphasis on subjectivity and emotion, which Charles Taylor described as the "cherishing of sentiment" (2004, p. 104). By representing personal relationships and hidden desires, it anticipates this later focus on emotional authenticity and individual introspection. The dollhouse's ability to reveal hidden truths mirrors the characters' struggles to reconcile public personas with private selves. Johannes and Marin, for instance, conceal their true identities—marked by intimacy and transgression—behind façades shaped by commerce and Calvinist morality. This tension between authenticity and societal expectations underscores the novel's exploration of modern subjectivity. By juxtaposing the outward-facing strategy of verkeerspel with the introspective focus of the dollhouse, Burton emphasizes the importance of understanding the complexities of identity and the interplay between the individual and society.

Sugar, as a commodity, epitomizes the dynamic forces of the marketplace. Johannes is expected to maximize its potential as capital; however, its association with personal indulgence and transgression elevates it beyond a mere object to something more intricate (Plakias, 2019, p. 23). Its eventual decay parallels Johannes's own downfall. Conversely, dolls, initially perceived as static objects, reveal a surprising agency. Their mysterious appearances and disappearances defy their classification as simple commodities. Through their interactions with Nella, the dolls become instruments of personal growth and empowerment. As Nella gains a nuanced understanding of the relationship between objects and their social significance, she learns to navigate her complex world and assert her agency. The dolls in *The Miniaturist* serve as a cautionary tale against reducing material objects to mere commodities. Trentmann (2016)'s claim that "Modernity gave Western man the delusion that he controlled matter" aligns with the novel's critique of consumerist attitudes (p. 95). *The Miniaturist* posits that objects hold intrinsic value beyond their economic worth, encapsulated in the enigmatic message: "THINGS CAN CHANGE" (Burton, 2014, p. 181).

Conclusion

Jessie Burton's *The Miniaturist* challenges traditional distinctions between humans and objects, demonstrating how possessions shape individuals while granting agency to material things. This interplay underscores a precarious balance in a consumerist world, where autonomy and dependence often blur. The novel critiques the dominance of material forces, illustrating how infinite consumption arises from systems that treat objects as subjects and humans as commodities. Central to this critique, the dolls transcend their static nature, orchestrating lives while reflecting the economic and political tensions of their time. Similarly, the fusion of commercialism and colonialism reduces individuals to instruments within a larger mechanism. Burton's narrative critiques this relentless cycle of consumption, revealing how it erodes distinctions between life and death, autonomy and subjugation. Through Nella's personal growth, the novel suggests the possibility of reclaiming agency.

Ultimately, *The Miniaturist* invites readers to critically examine their relationship with material culture, urging a reconsideration of the ethical and emotional impacts of consumption. By doing so, Burton critiques consumerist modernity, offering a timeless message of resilience and transformation.

References

Allan, N. (2019). *The doll maker*. London: Riverrun.

Appadurai, A. (1986). *The social life of things: Commodities in cultural perspective*. Cambridge: Cambridge University Press.

Bachelard, G. (2014). *The poetics of space*. London: Penguin Books.

Belting, H. (2011). *An anthropology of images: Picture, medium, body*. Princeton and Oxford: Princeton University Press.

Brown, B. (2001). Thing theory. *Critical Inquiry, 28*(1), pp. 1-22.

Burton, J. (2014). *The miniaturist*. London: Picador.

Connor, S. (2010). Thinking things. *Textual Practice*, *24*(1), 1–20.

Davenport, G. (1998). *Objects on a table: Harmonious disarray in art and literature*. Washington, DC: Counterpoint.

Dinsdale, R. (2018). *The toymakers*. London: Penguin.

Donohue, K. (2016). *The motion of puppets*. London: Picador.

Gadamer, H. G. (2012). *Truth and method*. New York and London: Continuum.

Gross, K. (2011). *Puppet: An essay on uncanny life*. Chicago and London: University of Chicago Press.

Israel, J. (1998). *The Dutch Republic: Its rise, greatness, and fall, 1477–1806*. Oxford: Clarendon Press. https://doi.org/10.1086/ahr/101.5.1562

Kuznets, L. R. (1994). *When toys come alive: Narratives of animation, metamorphosis, and development*. New Haven and London: Yale University Press.

Latour, B. (1993). *We have never been modern*. Cambridge, MA: Harvard University Press.

Macneal, E. (2019). *The doll factory*. London: Picador.

McCall, T., Roberts, S., & Fiorenza, G. (Eds.). (2013). *Visual cultures of secrecy in early modern Europe***.** Kirksville, MO: Truman State University Press. https://doi.org/10.1086/677431

McEwan, I. (2019). *Machines like me*. London: Jonathan Cape.

Miller, D. (Ed.). (2005). *Materiality*. Durham and London: Duke University Press.

Nelson, V. (2001). *The secret life of puppets*. Cambridge, MA, and London: Harvard University Press.

O'Connell, M. (2017). *To be a machine*. London: Granta.

Plakias, A. (2019). *Thinking through food: A philosophical introduction*. Peterborough: Broadview Press.

Riskin, J. (2016). *The restless clock: A history of the centuries-long argument over what makes living things tick*. Chicago and London: The University of Chicago Press. https://doi.org/10.1086/690797

Schama, S. (1987). *The embarrassment of riches: An interpretation of Dutch culture in the Golden Age*. New York: Alfred A. Knopf. https://doi.org/10.1086/ahr/94.1.158-a

Sedgwick, E. K. (2008). *Epistemology of the closet*. Berkeley: University of California Press.

Smil, V. (2022). *How the world really works: The numbers behind our everyday lives*. Viking.

Stearns, P. N. (2023). *Consumerism in world history: The global transformation of desire*. Routledge.

Stewart, S. (1993). *On longing: Narratives of the miniature, the gigantic, the souvenir, the collection*. Durham and London: Duke University Press https://doi.org/10.1215/9780822378563

Taylor, C. (2004). *Modern social imaginaries*. Durham and London: Duke University Press.

Tiffany, D. (2000). *Toy medium: Materialism and modern lyric*. Berkeley, Los Angeles, and London: University of California Press.

Trentmann, F. (2016). *Empire of things: How we became a world of consumers, from the 15th century to the 21st*. London: Penguin Books.

Truitt, E. R. (2015). *Medieval robots: Mechanism, magic, nature, and art*. Philadelphia: University of Pennsylvania Press.

Weber, M. (2005). *The Protestant ethic and the spirit of capitalism.* London and New York: Routledge.

Contact emails: rashaosman7777@gmail.com
rasha.abdelhaleem@hti.edu.eg

Human-Technology Relations in the Classroom: Postphenomenology-Inspired Field Notes From a COVID-Impacted Humanities Classroom in the Global South

Samson Thomas, The English and Foreign Languages University, India

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Integrative humanities aim to create cultural structures to negotiate with unforeseen events. Classroom experience during the pandemic-post-pandemic periods is one such crisis-ridden, generation-defining event. This paper — a crossover between a research article and field-notes, seeks to apprehend and articulate the nebulous experience of classroom instruction immediately after the COVID-19 pandemic. It aims to make sense of the researcher's dual-mode classroom, focusing on human-technology relations, informed by the postphenomenology framework. Technology integration in classroom, it is assumed, forms an effective heuristic to understand the whole spectrum of cognitive-affective responses in a classroom. The narrow focus of the field notes, a COVID-impacted classroom in a specific geographical location and socio-cultural context, with a learner-group of a particular demographic profile, where a certain kind/degree of technology-integration obtained, could help unpack the classroom dynamics across teaching-learning contexts. This hypothesis is based on two crucial factors: the academic "new normal" ushered in by the pandemic has made visible the often taken-for-granted procedures in the "normal" classroom, and secondly, specific classroom anecdotes, and theory-informed/theory-informing reflections on them, are perhaps more helpful in formulating valid generalizations, and lead to the production of socially usable knowledge, than abstract theorizing.

Keywords: Technology-Human Relations, Postphenomenology, Dual-Mode, Instruction, Pandemic-Impacted Global-South Classroom

iafor
The International Academic Forum
www.iafor.org

Introduction

In a time-honored tradition in India, a Hindu child's educational journey starts with a ritual called *vidyarambh* or *akshararamb*. In this ritual, the child, seated on the father's/guru's lap, traces the first few letters of the alphabet on the pile of rice heaped on a banana leaf, amidst the chant of *mantras*. The ritual is performed on the tenth day of *Vijayadashami*, an auspicious period of ten days, and the ceremony is closely associated with *Ayudha Puja* or *Shastra Puja* (Worship of instruments of all kinds).

The ritual, one of the 16 *samskaras* (sacred sanctifying ceremonies) (Oldenberg, 1892), is a lay-philosophical reminder that the human world is a relational field, formed by the connection between the human and its `other` (Heidegger, 1977), including tools. The ritual is comparable to the mirror stage in post-Freudian psychoanalysis, the process of self-embodiment (Lacan, 1977). It goes a long way towards intuiting the relational nature of human existence and contributes to self-making.

The ritual resonates with the ageless wisdom about what modern theories term as technology-human relation: the hand, the synecdoche for the body, crosses the mysterious Rubicon (Lawrence, 1936) to reach out to the world, both at the literal and metaphorical levels. Tracing the letters of the alphabet is a metaphorical reaching out, signalling the further consolidation of access to the mediated world. Accessing the world through the spoken and written language is facilitated by technology (Heidegger, 1977; Ihde, 1990; Verbeek, 2008). For a speech community, language, the primordial machine that mediates the extra-linguistic (pragmatic) world, works in tandem with the myriad `language games` in the Wittgensteinian sense of the phrase (Wittgenstein, 1958), all the while remaining invisible (Dreyfus, 1974; Ihde, 1990; Rosenberger & Verbeek, 2015, p. 389). The act of tracing the alphabets on rice, rice being the thing the Indian child is intimately familiar with, the little learner often being puzzled by its solid/liquid thingness, and the subsequent use of a writing tools like slate and slate pencil, accompanied by the sense of wonderment at being able to "fix" the ephemeral/fluid speech sounds, is the rite of passage from a fantasy-filled world to a pragmatic one, where the written word and figures play a crucial role in perception/action. The act marks the beginning of the process that results in the child becoming a literate subject, one capable of a transformed relation with the world through technology (Ihde, 1990). Further, the child's world of objects acquires another layer or sediment (Merleau-Ponty, 1945, p. 13), besides the one formed during the days of the child's orality. As the young learner gets familiar with the complexity of the new systems, literacy and numeracy, these systems become increasingly transparent. The technologies that offer the child its lifeworld (Husserl, 1970) will soon fade out, appearing only in moments of disruption.

The above account of the ritual is a kind of *fil rouge* to establish the link between the modern classroom scenario, with increasingly intense technology integration, and ancient and modern philosophical insights, from the East and the West. A classroom in crisis lays bare the cognitive-affective processes defining the classroom, much like *vidyarambh* or *akshararamb* and other rituals.

Technology-Human Relations As Effective Heuristic

The COVID-19 pandemic posed myriad challenges, some of which were domain-specific. In the context of education, preventing the triple loss: life, livelihood, and learning was the main challenge that the pandemic threw up. Technology integration was key to handling learning the

last of these challenges. Human-technology relations, under the spotlight, suggest an effective heuristic to unpack the classroom dynamics. Gauging human-technology relations in the dual-mode classroom, through which this article seeks to understand the key features of life in the lang-lit classroom, is predicated upon a discussion of human-technology relations in the face-to-face mode, in contradistinction to online, and hybrid modes.

In the modern lang-lit classroom, technology mediation is a secondary-level mediation, since the technology-mediated target culture is a product of the first-level mediation of the symbolic-semiotic system. The lang-lit classroom across the world is witnessing increased use of technology, with technology driven processes shaping learning experiences. The ultimate pedagogic fantasy of educational technologies is the quantum-leap in alterity relations, a key part of technology integration — the teaching machine flawlessly simulating the human teacher, and a learning process that is truly dialogical-didactic (Freire, 1970, p. 1; Vygotsky, 1978). From language laboratories to teaching robots, the classroom has been witnessing a variety and degrees of alterity relations.

Issues in Technology-Human Relations: Literature Review

Embodiment in the technology-human relation is a concept under intense scrutiny, with the intellectual community's responses ranging from shades of luddism (Carr, 2010; Dreyfus, 1974; Haidt, 2024; Newport, 2019; Putnam, 1988; Weizenbaum, 1976), to varieties of techno-utopianism (Chen, 2012; Clark, 1983, 1994, 2007; Dede, 2019; Fullen et al., 2017; Kozma, 1991; Prensky, 2001; Turkle, 1984). Are machines the externalization of the human mind or are they the mind's poor cousins? (Dreyfus, 1974, 2006; Turing, 1936). Does educational technology involve the use of inert machines that do not actually contribute to learning? (Cuban, 1986; Kohn, 2016; Selwyn, 2011) Does technology integration radically alter classroom instruction/ transaction? (Davidson, 2017; Swan, 2003) Is machine-mediated learning fundamentally different from the teacher-led, face-to-face classroom interaction? (Reich, 2020; Selwyn, 2011) Are learners being forced to carry the curricular burden: time-management, cognitive-load distribution, and discipline? (Kapp, 2012; Miller, 2016; Visser et al., 2012) Is learning in a tech-heavy environment haunted by loneliness and fatigue? (Junco, et al., 2011; Meyer, 2014; Tsinakos, 2014) Is machine-learning turning students into social misfits? (Turkle, 1984; Twenge, 2017) Does teacher rapport with children constitute the missing X-factors in machine-led learning? (Anderson et al., 2001) Is unpredictability the crucial missing element in automated learning processes? (Bain, 2020) Is the digitally augmented learning experience totally reductive? Or is it more effective than the imagination-led traditional learning? (Shapiro, 2020) Does tech-variety spice up the learning experience? (Bonk & Zhang, 2006) Educational technology has been haunted by these and many such queries.

Technology-Human Relations in Online Learning

Some of the concerns pertaining to technology-human relations are specific to the online mode of instruction. In this case too, Ihde's three aspects of the technological mediation process — embodiment relation, hermeneutic relation, and alterity relation, obtain, but they are significantly different from technology-induced learner-experience in face-to-face contexts.

Apart from technology challenges (Bates, 2019; Garrison & Anderson, 2003, 2016; Paloff & Pratt, 2001), social barriers (Anderson et al., 2001; Garrison & Anderson, 2003), motivation and time management etc., (Bransford et al., 1999; Brown, 2000; Khoo & Bonk, 2022), digital

equity (Lee, 2024; Reisdorf & Rhinesmith, 2020) technology embodiment in online learning is fraught with certain mode-specific issues. For the online learner, the field of vision is totally mediated by technology (Conklin & Dikkers, 2021). In this instance, technology is far from transparent, with the stakeholders being acutely aware that they are only virtually present, and the interaction is of a poorer quality, without the rich verbal and nonverbal clues (Daft & Lengel, 1986) that a face-to-face classroom abounds in. These are major issues even in the best-case online learning scenario.

The hermeneutic relation in online instruction, which in the lang-lit classroom is the reader's relation to the spoken and written text, is marked by technology-assisted interpretive routines: teacher-talk, peer-interaction, and self-directed processes involving the use of video equipment and online platforms, virtual chatroom provision, downloadable e-texts, audio-visual materials, etc. Here equipment plays a limited role, being confined to the shaping of the assistive processes, leaving the meaning-making and meaning-transfer processes to the primitive form of technology-human relation — the body in contact with the material world (Eagleton, 2016), with consciousness and the will to communicate (Lévinas, 1969) being the "ghost in the machine" (Ryle, 1949).

With online learning, however, there are several other hermeneutic relation issues. Academic integrity, or e-honesty, and valid assessment dominate the debates on hermeneutic relation in the human and technology online tango (Khan & Subramanian, 2022; King & Case, 2014; Lanier, 2006; Watson & Sottile, 2010). For many scholars, academic integrity is a serious matter of concern in online learning contexts (Dietz-Uhler, 2011; Hancock & Thom-Santelli, 2004) Solutions to the integrity issues are often grouped under three categories: *trust*, *verification* and *observation* (Tobin, 2018). These proposed solutions are symptomatic of the extent of the problem.

Alterity relations in online instruction are shaped by the constant desire for "authenticity in automated work" (Jago et al., 2022). The human teacher must be visibly present for the students to get a sense of the classroom. The teacher-bots, RUBI for instance, are programmed to squirm and giggle (Robot News, 2007) to give a semblance of the human teacher-presence, highlighting the vital fact that teacher-presence is an indispensable part of the learning experience.

Technology-Human Relations in the Hybrid/Dual Mode Classroom

The hybrid/dual mode (Bruggeman et al., 2021; Doering, 2006; Garrison & Kanuka, 2004; J. Watson & Murin, 2014) classroom, the new arrival on the global academic scene (Hrastinski, 2019), has thrown up a new set of problems. Sophisticated technology requirement, the necessity to handhold teachers through new technologies (Anca, 2013; Biletska et al., 2021), varied access to new and sophisticated technologies (Campaine, 2001), excessive screen-time leading to health issues among learners (Neza & Viner, 2021), unequal content access (Rhéaume, 2020), student-support ecology issues, decreased social interaction and the resulting loneliness, limited collaborative learning opportunities, distractions, academic integrity issues, weakened student-teacher relationship (Rogers, 2000) are just a few of these problems. In India, the hybrid mode, a visitor (*atithi* in sanskrit) during the COVID-19 times, is set to become a permanent member of the family, as envisaged in the *National Educational Policy* (Ministry of Human Resource Development, 2020).

Human-Technology Relations: Fieldnotes From a Hybrid Classroom

What follows is intended to be research-aided fieldnotes, gleaned from a hybrid/dual-mode classroom. In presenting the ideas and observations as fieldnotes, I acknowledge the fact that the data is limited, and enjoys only provisional authenticity, both being the offshoot of pandemic-induced emotions/affects, which interfered with the learner-group's behaviour. Limited though the data is, an earnest attempt at comprehensive analysis has been made to bring out the embodiment, hermeneutic and alterity relations in the hybrid/dual mode classroom. The impressions from a solitary classroom in a humanities university in the central part of India (The English and Foreign Languages University, located in Hyderabad [Hereafter, EFLU]), a class consisting of a small group of learners, it is hoped, are significant in the context of technology integration in the classroom. This is a theory-induced hope, derived from postphenomenology's affinity with neo-pragmatism (Rosenberger & Verbeek, 2015), particularly the chosen framework's endorsement of neo-pragmatism's key contention: theory and practice are just two distinct moments in the meaning-making process. (Fish, 1989; Rorty, 1998). Instead of a theory appliqué (Deleuze & Guattari, 1987), or a postphenomenological study of my dual-mode classroom, I intend to do a `theory-induced and theory-informing` study, aiming to make certain valid extrapolations, with a view to contributing to the production of socially useful knowledge.

Fieldnotes: Ethnographic Profile of the Hybrid Classroom

EFLU opened for phased, face-to-face instruction, with the COVID-safety protocols firmly in place. The use of a virtual learning platforms was one of the key features of the dual-mode classroom. Well-defined, closely mapped programme and course Learning Outcomes (LOs), reading lists, and evaluation schemes were made readily available to students, and these documents familiarized students with the aims, and course-expectations for different course offerings.

A sketchy ethnographic profile of the class (The August to December semester of the academic year two thousand twenty - twenty-one) forms a necessary preamble to the fieldnotes. The students who enrolled for the course *"Shakespeare in the New Humanities"* were from different States of India (Kerala, West Bengal, Assam, Nagaland, Maharashtra, and Rajasthan), and they belonged to different social strata. A majority was from the middle-income group, while some were from the poorer sections of the society. Their technology and Internet access, too, was varied and uneven. Some faced a variety of infrastructural challenges associated with non-urban sites: unstable power supply, poor rail and road connectivity, makeshift houses, poor sanitary conditions, inadequate water supply, limited personal space within the house, to name just a few. Some of these issues were temporary, caused by the inclement weather and local social and political dynamics and other phenomena, while others were endemic issues, like in most parts of the Global South (Asian Development Bank, 2017).

Factoring in the ethnographic specificity is important to any study on COVID 19 impact on any domain, in view of the uneven impact of the pandemic on people in diverse regions and sub-regions of the world. Comparisons of and generalizations across different regions, nation states, classes and underclasses, and demographics, are still work in progress (The Economist, 2020; World Bank Group, 2021). It is therefore methodologically sound to limit oneself to describing situation/s that one was a part of, which, in this instance, is the lang-lit classroom. Another reason for the narrow focus is that the "We", (the educational stakeholder groups) is a multistable category, with the groups often throwing up myriad, fleeting kaleidoscopic formations. The academic products and processes emerging out of the pandemic years appear

in countless formations, some of which are temporary, while the others are long-term. Commodification of online and asynchronous instruction (Williamson & Hogan, 2020), educational interventions by the non-initiates through social, and new media, which is a surprising turn of the public sphere screw (Habermas, 1989), numerous kinds of public-private partnerships, collaboration among traditional institutions like the family and local community, peer-learning programmes, private citizen contribution, civil society initiatives …the list is only growing.

Fieldnotes: Learner Attitude

Turning to learner attitudes and classroom behaviour, the pandemic-induced trauma across demographics and geographical areas troubles anyone attempting to describe issues like absenteeism, lack of discipline in the classroom, poor participation and deadline compliance, and academic integrity. Education during the pandemic is a complex phenomenon, with strong emotions in the mix, and research ought to be shaped by empathic understanding. These notes therefore confine themselves to describing/explaining the three features of human-technology relations, assuming that the target learner group had got used to the "new normal", to use Mohammed El-Erian's term (El-Erian, 2010) in the form of classroom routines, and pedagogic interactions and transactions. The evidence in support of the claims in this paper is anecdotal as the traditional data-collection processes were out of the reach of the study, due to the high stress-levels of the potential respondents.

Fieldnotes: Embodiment Relations

The embodiment relation in my dual/hybrid mode classroom, the first of the three relations discussed above, with one group of learners physically present, maintaining "social distancing", and the other being virtually present, was marked by a high degree opaqueness, due to the limited view of the interaction-transaction that the virtual learning platform offered.

Extracts from the Shakespeare texts, curated film/video adaptations of the plays, selected based on the hypothesis — the centrality of the concept of "species being" (Eagleton, 2002, 2016; Marx, 1959), were the course materials. Text selection and presentation were the two pedagogic moves aimed at foregrounding/projecting a theoretical-narrative ensemble of ideas. The "species-being identity" argument was presented as the frame of reference to understand and appreciate the contemporary relevance of Shakespeare's plays. Unfortunately, however, the PPTs, videos, and texts, shared before the class as part of pre-class preparation, had not been studied by the group, with the group under severe pandemic-induced stress. Elizabeth Outka, (Outka, 2019) discusses this at some length in the context of the Spanish flu. This lack of preparedness led to the glitches in the presentations in the offline class assuming proportions of total disruption for the online group. "Your slides are not visible!" or "The PPTs are not in sync with the point you are making!" were some of the constant complaints. The habitual move towards the blackboard, away from the laptop, was welcomed by screamed objections, "You aren't audible!".

Learner-technology relations in my class-space were defined by the following:

- Extreme focus on the content to the exclusion of teacher presence, non-academic peer interactions, etc.

- Content worth 90-120 minutes of discussion compressed into 60 minutes, with fatigue resulting from the compression
- Emotions and affects resulting from remoteness from the Campus
- Non-availability of a space (at home) totally devoted to academic interactions and transactions for the online group
- The temptation to leave the classroom unnoticed (Martin & Borup, 2022; Svongoro, 2022)
- The newness of the technology, combined with the traditional classroom reticence of Indian learners, resulting in poor interactivity in the class, which was evident from the silence in the classroom, and the empty chat-boxes

Fieldnotes: Learner-Group Experience

The experiences of the two learner-groups were marked by many distinctions as well as differences. With the offline group, the remoteness from the traditional classroom was caused by the mandatory social distancing. With the online learner-group, this remoteness was caused by the technology-assisted virtuality of interaction. Both the groups experienced fatigue, caused by the new division of the university day, and considerably reduced peer-learning opportunities. For the online learners, the often-invisible teacher, the absence of small talk, curtailed class duration, and information overload, added another layer to the fatigue. The non-availability of a purely academic space was another dimension of the tech-mediated learning experience. The login-and-disappear routine was also unique to the online group.

My learners were uncertain about their academic goals and aspirations (Stringer & Keys, 2021), nursing an ambivalent attitude to learning (Bekele, 2010). To the online group, the classroom was an unfamiliar two-dimensional space, a kind of Flatland, described in the novel *Flatland: A Romance of Many Dimensions* (Abbot, 1884), and "presence" in this space was a new ball game all together. These learners had to mentally reconfigure their classroom experience along the lines of their social media and new media experience, in the form of composition-reception of messages, chats, posts, reels, stories, comments, etc. The glitches and other disruptions resulted in technology being less than transparent (Mahajan et al., 2021; Rosenberger & Verbeek, 2015), which is a major irritant in any learning context. Further, technology-mediation, together with the health crisis, diluted some of the crucial aims and objectives of the "hidden curriculum" (Jackson, 1990): good work-ethics, discipline, punctuality, diligence, and perseverance.

Fieldnotes: Achievement of Learning Outcome

The course could only partially achieve its major learning outcome: emphasizing the relevance of Shakespeare for a posthuman society, by highlighting Shakespeare's artistic advocacy of "species being" for the formation of a more egalitarian society. Absence of learner queries, questions being a crucial part of the internalization of ideas, and online access to non-curated open-source materials were the chief obstacles to realizing the learning outcomes. Both were products of technology-integration and technology access (Ihde, 1990). Student term-papers, and their seminar presentations confirmed this impression.

Fieldnotes: Hermeneutic and Alterity Relations

The technology-learner hermeneutic relation was thus a complex one, with the reader-text hermeneutic relations only partly achieved through inadequate technology-integration, aggravated by random data accessed through digital technologies. The totally teacher-driven classroom had a poor resemblance to the vibrant, Gen-Z graduate classroom.

The alterity relation with technology too was very weak. The quasi-alterity that Ihde considers as the defining character of technology-human relations (Ihde, 1990, p. 100), while it did obtain between the teacher, learners in the technology-enabled classroom, took considerable effort on the part of both the stakeholders. This technology-enabled classroom, which should have been a zone of communication between the human teacher and the students, ended up as a space where technology was "thick", all too visible. The teacher's voice had to be imagined as embodied presence (Arbaugh & Hwang, 2006; Baker, 2003). This was also true of my (the teacher's), own relation with the online learners, who were mere names on the screen. The online group of learners had to strain to make sense of the occasional teacher-offline group interaction. Here, the culprit is the learners' digital experience, with inputs rich in multimedia elements. The digital experience has resulted in the formation of a new horizon of expectations (Gadamer, 2013). The call for the gamification of education (Deterding, 2016; Doherty, 2017; Gee, 2003; McGonigal, 2011) vouches for this new horizon.

The exciting graduate seminar turned out to be a totally dull affair. There was poor participation in the presentations and discussions. The weak quasi-alterity of student relation to this techno-space (Lefebvre, 1991) is evident from the feedback: "I am waiting to come back to the University!"

Fieldnotes: Key Takeaways

A few key takeaways from this experience:

- Methodically planned lessons do not automatically ensure effective classroom interaction and transaction
- Topics/issues that seem on paper to be perfect fit for a group may not always be a good match
- The presence of a human teacher is a crucial part of the classroom experience, and its importance cannot be overstated
- Learner autonomy is fraught with issues, needing thoroughgoing research
- Assessment should synchronize with learning opportunities; and the latter must be clearly defined for each group, for specific periods of time
- The number of issues related to human-technology relations must be fully addressed before full-scale technology integration is attempted
- Campus life works in mysterious ways in the self-fashioning of learners, so studies in this area are crucial

Conclusion

These notes and observations from a Global-South classroom, along with other similar documents, ranging from blogs to scholarly essays, could be collated, as a first step towards the creation of a network of scholars interested in human-technology classroom relations. This research cluster could use the data and the critical mass — studies, and theoretical explorations, as raw material and guidelines respectively, to arrive at an outline of the future classroom. This

could go a long way towards the creation of micro and macro structures, from infrastructure to classroom-cultural structures, to deal with unforeseen educational crises.

Author's Note

I have no conflict of interest to declare.

Correspondence about this article should be addressed to T. Samson, Department of English Literature, The English and Foreign Languages University, Hyderabad.

References

Abbot, E. (1884). A. *Flatland: A Romance of many Dimensions*. Seeley & Co. https://www.gutenberg.org/ebooks/201

Anca, P. (2013). The Development of multiple skills for the foreign language teacher of the XXIst century–Current training needs. *Procedia-Social and Behavioral Sciences*, *76*, 643-648. https://doi.org/10.1016/j.sbspro.2013.04.179

Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001). Assessing teaching presence in a computer conferencing context. *Journal of Asynchronous Learning Networks*, *5*: 2, http://www.aln.org/publications/jaln/v5n2/v5n2_an-derson.asp

Arbaugh, J. B. & Hwang, A. (2006). Does "teaching presence" exist in online MBA courses?" *The Internet and Higher Education*, *9*:1, 9-21.

Asian Development Bank. (2017). *Meeting Asia's Infrastructure Needs.* February 2017. http://dx.doi.org/10.22617/FLS168388-2

Bain, K. (2020). *What the Best College Teachers Do*. Hybrid Pedagogy Inc.

Baker, J. (2003). The Impact of Instructor immediacy and Presence for Online Student Affective Learning, Cognition and Motivation. *The Journal of Educators Online*, *7*:1, January 2020, 1-30. https://files.eric.ed.gov/fulltext/EJ904072.pdf

Bates A. W. (2019). *Teaching in a Digital Age*: *Guideless for design, teaching and learning* (2nd edition). Tony Bates Association Ltd. https://pressbooks.bccampus.ca/teachinginadigitalagev2/

Bekele, T. A. (2010). Motivation and Satisfaction in Internet-Supported Learning Environments: A Review. *Educational Technology & Society*, *13*, 116-127.

Biletska, I. O., Paladieva, A. F., Avchinnikova, H. D., & Kazak, Y. Y. (2021). The use of modern technologies by foreign language teachers: Developing digital skills. *Linguistics and Culture Review*, *5*: S2, 16-27. https://doi.org/10.21744/lingcure.v5nS2.1327

Bonk, C. J., & Zhang, K. (2006). *Adding Some TEC-VARIETY: 100+ Activities for Motivating and Retaining Learners Online.* Open WorldBooks.Com. https://tec-variety.com/

Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (1999). *How People Learn: Brain, Mind, Experience, and School.* National Academy Press.

Brown, J. S. (2000). Growing up digital: How the web changes work, education, and the ways people learn. *Change*, March/April, 2000. http://www.aahe.org/change/digital.pdf

Bruggeman, B., Tondeur, J., Struyven, K., Pynoo, B., Garone, A., & Vanslambrouck, S. (2021). Experts speaking: crucial teacher attributes for implementing blended learning in higher education. *Internet High. Educ*., *48*, January 2021. https://doi.org/10.1016/j.iheduc.2020.100772

Campaine, B. M. (Ed.). (2001). *The Digital Divide – Facing a Crisis or Creating a Myth?* MIT Press.

Carr, N. (2010). *The Shallows: What the Internet is Doing to our Brains*. W. W. Norton & Company.

Chen, M. (2012). *Education Nation: Six Leading Edges of Innovation in our Schools.* Jossey-Bass.

Chickering, A. W., & Ehrmann, S. C. (1996). Implementing the Seven Principles: Technology as Lever. *AAHE Bulletin*, October. http://www.tltgroup.org/ programs/seven.html

Clark, R. E. (1983). Reconsidering Research on Learning from Media. *Review of Educational Research, 53*:4, 445-459.

Clark, R. E. (1994). Media will never influence learning." *Educational Technology Research and Development, 42*(1), 21-29.

Clark, R. E. (2007). Learning from Serious Games? Arguments, Evidence, and Research Suggestions. *Highly Mobile Technology*, *Educational Technology*, *vol. 47*, no.3, (special issue), May-June, 56-59. https://www.jstor.org/stable/i40186180

Conklin, S., & Dikkers, A. G. (2021). "Instructor Social Presence and Connectedness in a Quick Shift from Face-to-Face to Online Instruction. *Online Learning*, *5*:1. https://doi.org/10.24059/olj.v25i1.2482

Cuban, L. (1986). *Teachers and Machines: The Classroom Use of Technology since 1920.* Teachers College Press.

Daft, R. L. & Lengel, R. H. (1986). Organizational information requirements, media richness and structural design. *Management Science*, *32*:5, 554–571.

Davidson, C. N. (2017). *The New Education: How to Revolutionize the University to Prepare Students for a World in Flux.* Basic Books, 2017.

Dede, C. (2019). Immersive Interfaces for Engagement and Learning. *Science, 323*(5910), 66-69.

Deleuze, G. & Guattari, F. (1987). *A Thousand Plateaus, Capitalism and Schizophrenia* (Trans. Massumi, B.) University of Minnesota Press.

Deterding, S. (2016). Desperately Seeking Theory: Gamification, Design, Data, Machine Learning, and the Promise of Double Loop Learning Systems. Hopfgartner,F., Kazai,G., Kruschwitz,U., & Meder,M. *Proceedings of the GamifIR 2016 Workshop, Pisa, Italy, 21-July-2016*, http://ceur-ws.org

Dietz-Uhler, B. (2011). Academic dishonesty in online courses. 2011 ASCUE Proceedings, pp. 71- 77.

Doering, A. (2006). Adventure Learning: Transformative Hybrid Online Education." *Distance Education*, *27*:2, 2006. https://www.semanticscholar.org/paper/Adventure-Learning%3A-Transformative-hybrid-online-Doering/b5164a10892bd4d194ec96c954a12d5ccce4b926

Doherty, S. M. (2017). Gamification: Current Research and Applications. *Proceedings of the Human Factors and Ergonomic Society, 61*:1. https://doi.org/10.1177/1541931213602006

Dreyfus, H. L. (1974). Artificial Intelligence. *The ANNALS of the American Academy of Political and Social Science*, *412*, 21-33. https://doi.org/10.1177/000271627441200104

Dreyfus, H. L. (2006). UC Berkely Lecture on Heidegger's Being and Time Part 1 [Video]. https://www.youtube.com/watch?v=FqRybX2pSDU.

Eagleton, T. (2002). *Sweet Violence*: *The Idea of the Tragic*. Wiley & Sons.

Eagleton, T. (2016). *Materialism*. Yale University Press.

The Economist. (2020). The risks of keeping schools closed far outweigh the benefits: Featured article. *The Economist.* July 18. economist.com/leaders/2020/07/18/the-risks-of-keeping-schools-closed-far-outweigh-the-benefits

El-Erian, Mohammed, A. (2010). *Navigating the New Normal in Industrial Countries*. Per Jacobsson Foundation. http://www.perjacobsson.org/lectures/101010.pdf

Fish, S. E. (1989). *Doing What Comes Naturally*. Clarendon Press.

Freire, P. (1970). Pedagogy of the Oppressed. Myra Bergman Ramos.Trans. Seabury Press.

Fullen, M., Quinn, J., Joanne J. & McEachen, J. (2017). *Deep Learning: Engage the World, Change the World*. Corwin.

Gadamer, Hans- Georg. (2013). *Truth and Method*. (Trans. by Weinsheimer, J & Marshall, D.G.). Revised 2nd ed., Bloomsbury Academic. (Original work published 1960)

Garrison, D. R. (2016). *E-learning in the 21st century: A community of inquiry framework for research and practice*. Taylor & Francis.

Garrison, D. R., & Anderson, T. (2003). *E-Learning in the 21st century: A framework for research and practice.* Routledge/Falmer.

Garrison, D. R. & Kanuka, H. (2004). Blended learning: uncovering its transformative potential in higher education. *Internet High. Educ.7*:2, 95–105. https://doi: 10.1016/ j.iheduc.2004.02.001

Gee, J. P. (2003). *What video games have to teach us about learning and literacy.* Palgrave Macmillan.

Habermas, J. (1989). *The Structural Transformation of the Public Sphere: An Inquiry into a category of Bourgeois Society*, Polity. (Burger, T. Trans.). MIT Press.

Haidt, J. (2024). *The Anxious Generation: How the Great Rewiring of Childhood Is Causing an Epidemic of Mental Illness*. Penguin Press.

Hancock, J. T., & Thom-Santelli, J. (2004). Deception and design: The impact of communication technology on lying behavior. *Proceedings of the 2004 Conference on Human Factors in Computing Systems, CHI 2004, Vienna, Austria, April 24 - 29, 2004*, 129-34.

Heidegger, M. (1977). The Question Concerning Technology. *Basic Writings*. (Krell, D.F. Ed.). Harper & Row.

Hrastinski, S. (2019). What do we mean by blended learning? *TechTrends*, *63*, 564–569. https://doi:10.1007/s11528-019-00375-5

Husserl, E. (1970). *The Crisis of European Sciences and Transcendental Phenomenology*. (Trans. Carr, D.). Northwestern UP. (Original work published 1936)

Ihde, D. (1990). *Technology and The Lifeworld*. Indiana UP.

Jackson, P. W. (1990). *Life in Classrooms.* Teachers College Press. (Original work published 1968)

Jago, A.S., Carroll G.R., & Lin, M. (2022). Generating authenticity in automated work. *Journal of Experimental Psychology Applied, 28*:1, 52-70. https://doi:10.1037/xap0000365

Junco, R., Heiberger, G., & Loken, E. (2011). The effect of Twitter on college student engagement and grades. *Journal of Computer Assisted Learning*, *27*:2, 119-32. https://doi:10.1111/j.1365-2729.2010.00387.x

Kapp, K. M. (2012). *The Gamification of Learning and Instruction: Game-based Methods and Strategies for Training and Education*. Pfeiffer.

Khan, Z. R., & Subramanian, S. (2022). Students go click, flick and cheat... e-cheating, technologies and more. *Journal of Academic and Business Ethics*, *6*, 1-26.

Khoo, E., & Bonk, C. J. (2022). *Motivating and Supporting Online Learners.* Commonwealth of Learning.

King, D. L., & Case, C. J. (2014). E-cheating: Incidence and Trends Among College Students. *Issues Inf. Syst., vol. 15*, no.1, 2014, pp. 20–27.

Kohn, A. (2016). The Overselling of Ed Tech. *Alfie Kohn Blogs*. March12. https://www.alfiekohn.org/blogs/ed-tech/

Kozma, R. B. (1991). Learning with Media. *Review of Educational Research*, *61*: 2, 179-211.

Lacan, J. E. (1977). *Écrits: A Selection*. (Sheridan, A. Trans.) W.W. Norton & Co., 1977.

Lanier, M. M. (2006). Academic Integrity and Distance Learning. *Journal of Criminal Justice Education*, *17*(2), 244–261. https://doi.org/10.1080/10511250600866166

Lawrence, D. H. (1936). *The Phoenix: The Posthumous Papers of DH Lawrence*. (McDonald, E. Ed.) William Heinmenn, 533-538.

Lee, N. T. (2024). *Digitally Invisible: How the Internet Is Creating the New Underclass.* Rowman& Littlefield Publishers.

Lefebvre, H. (1991). *The Production of Space*. (Nicholson-Smith, D. Trans.) Blackwell.

Lévinas, E. (1969). *Totality and Infinity: An Essay on Exteriority*. 1961. (Lingis, A. Trans.) Kulwer Academic Publishers. (Original work published 1961)

Mahajan, R., Gupta, K., Kaur, S., Kaur Sidhu, T., Kaur, U., Goyal, P. K., & Bedi, S. (2021). Effectiveness of interactive dual-mode online platform for teaching and assessment of students during COVID 19 pandemic: Narrative experience and reflections of undergraduate medical students. *Adesh University Journal of Medical Sciences and Research*, *3*(1), 34-40. https://doi:10.25259/AUJMSR_18_2021

Martin, F., & Borup, J. (2022). Online learner engagement: Conceptual definitions, research themes, and supportive practices. *Educational Psychologist, 57*:1*,* 1-16.

Marx, K. (1959). *Economic and Philosophic Manuscripts of 1844*, (Martin M. Trans.) Progress Publishers. (Original work published 1932)

McGonigal, J. (2011). *Reality Is Broken: Why Games Make Us Better and How They Can Change the World*. Penguin Press.

Merleau-Ponty, M. (1945). *Phenomenology of Perception*. (Landes, D. Trans.) Routledge.

Meyer, K. (2014). Student Engagement in Online Learning: What Works and Why? *ASHE Higher Education Report, 40*:6, November 2014. https://doi.org/10.1002/aehe.20018

Miller, M. D. (2016). *Minds Online: Teaching Effectively with Technology*. Harvard UP.

Ministry of Human Resource Development. (2020). *The National Education Policy, 2020*. Ministry of Human Resource Development, Government of India, 2020. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

Newport, C. (2019). *Digital Minimalism. On Living Better with Less Technology.* Penguin Business.

Neza, S., & Viner, R. M. (2021). Effects of screentime on the health and well-being of children and adolescents: a systematic review of reviews. *BJM, 9*:1. https://bmjopen.bmj.com/content/9/1/e023191

Oldenberg, H. (1892). Trans. *Grihya Sutras: Rules of Vedic Domestic Ceremonies*. Clarendon Press. https://rarebooksocietyofindia.org/book_archive/196174216674_10152996551871675.pdf

Outka, E. (2019). *Viral Modernism: The Influenza Pandemic and Interwar Literature*. Columbia University Press.

Paloff, R. M., & Pratt, K. (2001). *Lessons from the Cyberspace Classroom: The Realities of Online Teaching*. Jossey-Bass Inc.

Prensky, M. (2001). Digital Natives, Digital Immigrants, Part 1. *On The Horizon*, *9*:5, 3-6. http://dx.doi.org/10.1108/10748120110424816.

Putnam, H. (1988). Much Ado about not Very Much. *Daedalus*, Vol. 117, No. 1, Artificial Intelligence (Winter, 1988), 269-28. https://www.jstor.org/stable/20025147

Reich, J. (2020). *Failure to Disrupt*. Harvard UP.

Reisdorf, B., & Rhinesmith, C. (2020). Digital inclusion as a core component of social inclusion. *Social Inclusion, 8*:2, 132-37.

Rhéaume, C. (2020). Different Teaching Models: Face-to-Face, Distance, Dual-Mode, and Blended. *Educative*, November 22, 2020. https://eductive.ca/en/resource/different-teaching-models-face-to-face-distance-dual-mode-and-blended/

Robot News. (2007). "Teacher's Little Helpers." *Robotnews.* https://robotnews.wordpress.com/2007/04/02/teachers-little-helpers/

Rogers, P. L. (2000). Barriers to adopting emerging technologies in education. *Journal of Educational Computing Research*, *22*:4, 455-472.

Rorty, R. (1998). *Advancing our Country: Leftist Thought in 20th-century America*. Harvard UP.

Rosenberger, R., & Verbeek, P. (Eds.). (2015). *Postphenomenological Investigations: Essays on Human–Technology Relations.* Lexington Books.

Ryle, G. (1949). *The Concept of Mind*. Hutchinson.

Selwyn, N. (2011). *Education and Technology: Key Issues and Debates*. Continuum International Publishing Group.

Shapiro, J. (2020). The Future of Digital Play. Jordan Shapiro May 21 2020. *Joanganzcooneycenter*, https://joanganzcooneycenter.org/2020/05/21/jordan-shapiro/

Stringer, N., & Keys, E. (2021). *Learning during the pandemic: review of international research.* Ofqual, Government of UK. https://www.gov.uk/government/publications/learning-during-the-pandemic/learning-during-the-pandemic-review-of-international-research

Swan, K. (2003). Elements of quality online education, practice and direction. *Elements of quality online education, practice and direction*, *4*:1, 13-47.

Svongoro, P. (2022). Online Absenteeism and Strategies for Optimising Students' Participation During COVID-19-Induced Online Learning. *Science Open.com.* Preprint, 12 July 2022. https://www.scienceopen.com/hosted-document?doi=10.25159/UnisaRxiv/000040.v1

Tobin, T. (2018). *Three paths to Academic Integrity*. Magna Publications.

Tsinakos, A. (2014). State of mobile learning around the world. *Global Mobile Learning Implementations and Trends*. (Eds. Tsinakos., A. & M. Ally, M.) China Central Radio and TV University Press, 4-44.

Turing, A. M. (1936). On Computable Numbers, with an Application to the Entscheidungsproblem. November 12. https://www.abelard.org/turpap2/tp2-ie.asp.

Turkle, S. (1984). *The Second Self: Computers and the Human Spirit*. Simon & Schuster.

Twenge, J. M. (2017). *iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy--and Completely Unprepared for Adulthood--and What That Means for the Rest of Us.* (2nd ed.). Atria Books.

Verbeek, P. P. C. C. (2008). Cyborg intentionality: rethinking the phenomenology of human-technology relations. *Phenomenology and the cognitive sciences*, *7*(3), 387-395. https://doi.org/10.1007/s11097-008-9099-x

Visser, L., Visser, Y. L., Amirault, R., & Simonson, M. (2012). *Trends and Issues in Distance Education: International Perspectives*. (2nd ed.). Information Age Publishers.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Watson, G., & Sottile, J. (2010). Cheating in the Digital Age: Do Students Cheat More in Online Courses? *Online Journal of Distance Learning Administration*, *13*:1, January. https://www.researchgate.net/publication/234703387_Cheating_in_the_Digital_Age_Do_Students_Cheat_More_in_Online_Courses_pdf.

Watson, J., & Murin, A. (2014). A history of K-12 online and blended instruction in the United States. *Handbook of Research on K-12 Online and Blended Learning*. (Eds. Kennedy, K. & Ferdig, R.E.). ETC Press, 1–23.

Weizenbaum, J. (1976). *Computer Power and Human Reason: From Judgment To Calculation.* W. H. Freeman.

Williamson, B., & Hogan, A. (2020). *Commercialisation and privatisation in/of education in the context of Covid-19.* Education International. July 2020. https://www.researchgate.net/publication/343510376_Commercialisation_and_privatisation_inof_education_in_the_context_of_Covid-19

Wittgenstein, L. (1958). *Philosophical Investigation*. (Anscombe, G.E.M., Trans.) Basil Blackwell.

World Bank Group. (2021). *Urgent, effective action required to quell the impact of COVID-19 on education worldwide.* January 22. worldbank.org/en/news/immersive-story/2021/01/22/urgent-effective-action-required-to-quell-the-impact-of-covid-19-on-education-worldwide

Contact email: tsamson@efluniversity.ac

ORCID: https://orcid.org.Samson eflu

Cultural Aesthetics in Inclusive Playground Equipment Design

Tin-Man Lau, Auburn University, United States
Chyun-Chau Lin, Shu-Te University, Taiwan

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Most designs of inclusive playgrounds and playground equipment focus on expanding the user group to include users with various disabilities. There is also a trend to diversify the age group from children and young people to adults and senior users with the hope that the playground is not only for children and young people but also for all people of different abilities and ages so that everyone may attain an equity play experience. As we attempt to design for inclusion, culture is often overlooked. There is a recursion that design produces culture, which, in return, impacts design. Implementing cultural aesthetics to playground equipment design opens opportunities for unique design and brings users familiarity. Designing inclusive playground equipment with cultural aesthetics can also bring awareness of cultural diversity and sustainability. Through a study abroad program visiting Taiwan for two months, an experimental design project was assigned to industrial design students from two schools of different cultural backgrounds to develop inclusive playground equipment that applies cultural aesthetics in the design. Through research, students study diverse user groups and identify objects representing a specific culture, namely, Taiwanese. Through the collaboration of the two groups of students in five teams, five pieces of playground equipment with cultural aesthetics were systematically developed. The project not only facilitates students in exploring different possibilities of applying cultural aesthetics to design appropriately but also helps students learn about the importance of culture in design.

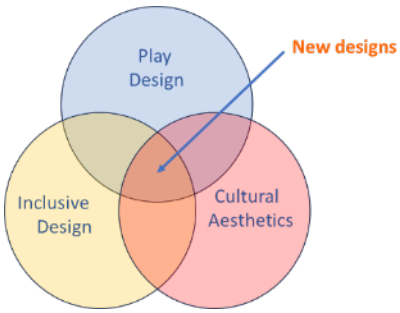
Keywords: Inclusive Design, Play Experiences, Cultural Preferences

iafor
The International Academic Forum
www.iafor.org

Introduction

This paper is a documentation of a Study Abroad industrial design studio class conducted in Taiwan attempting to incorporate Cultural Aesthetics to inclusive playground equipment design. The project includes research on Taiwan's culture, inclusive design considerations, and play experiences design, as shown in Figure 1. It is hoped that incorporating cultural aesthetics would help expand the inclusiveness of users' play experience.

Figure 1: The Project Focus



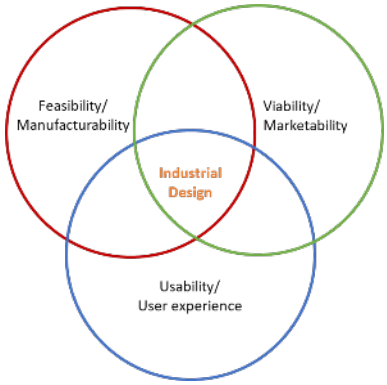
A group of six Auburn industrial design undergraduate and graduate students and a professor spent almost two months in Taiwan, staying at Shu-Te University to experience the culture firsthand and learn design and crafts through working with Shu-Te's professors and students.

Each Auburn student is assigned to 5 to 6 Shu-Te students this year and works as a team on a design project. The result of the design projects is not the program's only goal, though it is tangible evidence of how well the group can work together productively. The design process is an essential part of the interaction within the program. Through the intense and stressful project schedule, with language barriers and discrepant design processes, skills, and tools, students must struggle to communicate, compromise, negotiate, and cooperate with group members. During the process, students learn to deal with people different from them in a working environment, appreciate cultural differences, and take advantage of the combined talents of diverse backgrounds. Working with a design theme of applying cultural aesthetics to design required students to pay more attention to their surrounding culture, thus developing an appreciation of diversity's beauty and importance.

Industrial Design

Industrial design is a profession that develops products focused on usability (user experience), feasibility (manufacturability), and viability (marketability), as illustrated in Figure 2. Students are trained to identify design problems through research and develop innovative solutions with consideration of the user and stakeholders' experience. Most industrial designers focus on the physical and psychological needs as the foundation of providing the product's usability rather than the cultural needs. However, understanding, acceptability, and familiarity with a design relate somewhat to the users' cultural background. This research project aims to help design students see the importance of cultural influences in design.

Figure 2: The Key Focus of Industrial Design



Inclusive Playground

Inclusive play has been gaining weight in the playground industry. Most inclusive playgrounds today try to include children with physical challenges and comply with ADA requirements. There is also a social mindset that playgrounds are for children only. Therefore, most inclusive playgrounds are for children. A genuinely inclusive playground should consider users of all ages, abilities, and disabilities. The National Recreation and Park Association (NRPA) website lists seven inclusive play principles. These principles are general guidelines without much detail or criteria. The NRPA's seven inclusive play principles (Ruane, n.d.) are:

1. Equitable use
2. Flexibility in use
3. Simple and intuitive use
4. Perceptible information
5. Tolerance for error
6. Low physical effort
7. Size and space for approach and use

The Gametime website also provides seven similar principles for inclusive play design. The Gametime seven inclusive play principles (The 7 Principles of Inclusive Playground Design, n.d.) are:

1. Be fair
2. Be included
3. Be smart
4. Be independent
5. Be safe
6. Be active
7. Be comfortable

As mentioned, most inclusive playground designs try to include users with physical disabilities. From the Billings Parks and Recreation's website, a diagram reveals the statistics of different disabilities among 1000 children. As shown in Figure 3, out of 1000 children between 3 to 21, about 85 have disabilities. According to the diagram, only one has a physical disability. In contrast, the rest, 84 children, have cognitive disabilities, communication disabilities, social and emotional disabilities, chronic health conditions, multiple disabilities, and sensory disabilities.

Figure 3: Disabilities Among 1000 Children

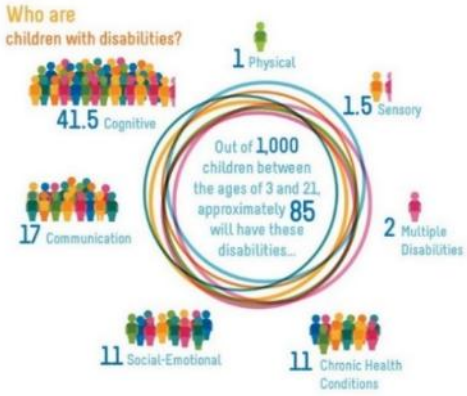


Image Source: https://www.billingsparks.org/parks-trails/playgrounds/

If inclusive play design addresses only physical needs, many who have other disabilities would still not be able to enjoy the play experience. There is a need for more design for users with different disabilities. Inclusiveness should not be limited to physical needs but also psychological, social, emotional, and even cultural needs. Design should enhance the play experience by incorporating and considering users of different age groups, abilities, disabilities, and cultural considerations so that all can play on the equipment without compromising the fun and functions of the product. Specific user groups have their particular needs. If a design can fulfill the needs of multiple user groups, it will be a better inclusive play equipment.

Although inclusive play is an important subject, this research project focuses more on cultural aesthetics and its application to design.

Cultural Aesthetics

Cultural aesthetics is the concept that cultural beliefs, practices, and history shape artistic and sensory values. It describes how a culture's values, expressions, and experiences define its artistic appreciation and expressions. Cultural aesthetics includes visual elements such as colors, patterns, symbols, motifs, and structural and spatial elements such as architectural styles and layout influences. Cultural aesthetics is essential for understanding how cultures maintain their identity and adapt their art forms in the face of change. It also helps us understand how people from different cultures prioritize different visual or auditory attributes. (Magazin et al., n.d.) It is not the goal of this project to conduct a thorough study on the formation of cultural aesthetics but rather an attempt to instill in design students an understanding of the importance of culture in design. Therefore, this paper is not a survey of cultural aesthetics but more of an approach to applying the visual elements considered part of cultural aesthetics to design.

Incorporating cultural aesthetics into design may bring cultural sustainability. Applying cultural aesthetics to design, on the one hand, helps users pass down their culture to the younger generations; on the other, it brings interest to those who are foreign to the culture. For the designer, incorporating cultural aesthetics enhances their understanding and appreciation of the beauty of a specific culture, whether it is for their own culture or designing for another culture.

When a design possesses cultural elements, it will be familiar to the users, thus identifying and understanding it intuitively. A product that users can identify and understand brings attachment and appreciation. In terms of usability, it is an enhancement of the product.

For those who enjoy traveling, experiencing different cultures and scenery is essential. Likewise, diversity in design is vital to the users. Diversity is celebrated in design through the uniqueness of various forms, functions, and even cultures. Therefore, considering cultural aesthetics in design is essential, especially when the world is becoming increasingly homogenous through technology.

Cultural aesthetics can also enhance the inclusiveness of a product. Applying cultural aesthetics can bring familiarity, which is especially beneficial for some neurodivergent individuals. Studies suggest that familiarity may help children with autism in socio-emotional functions. (Nuske et al., 2014; Pierce, 2004).

When prompted with "Can familiarity have positive effects on neurodivergent children?" the ChatGPT-generated text indicated that familiarity can have a significant positive effect on neurodivergent children (children with conditions like autism spectrum disorder (ASD), ADHD, dyslexia, and other neurodivergent traits). Familiar environments, routines, and people can help these children feel more comfortable, supported, and engaged in various situations. Familiarity can help reduce anxiety and stress, improve social interactions, enhance learning and development, support emotional regulation, increase sense of identity and belonging, and improve behavioral outcomes (OpenAI, 2025).

In playground design, incorporating familiarity with the users by applying cultural elements to the design may help users with neurodivergence to play in the environment.

The Design Project

This research project aims to conduct a study abroad design studio in Taiwan, which combines students from Auburn University and Shu-Te University with two different cultural backgrounds and design inclusive playground equipment incorporating Taiwanese cultural aesthetics. Taiwanese (Shu-Te) students intentionally incorporate their culture into the design, thus paying more attention to how cultural influence may enhance the design. Auburn students (from the US) would better understand Taiwanese culture through working with Taiwanese students, which enhances their study abroad experience and learn more about Taiwanese culture. Consequently, students from both schools may realize the importance and usefulness of cultural considerations in designing products. Hopefully, the new designs with cultural aesthetics may expand on inclusiveness regarding familiarity, attachment, empathy, cultural sustainability, diversity, and social interaction.

Six students from Auburn University and 28 from Shu-Te University were divided into five design teams to work together for 7 weeks. Each design team has at least one student from Auburn to ensure cultural exchange and English was used in the class. Each design team developed a specific product proposal based on the research conducted.

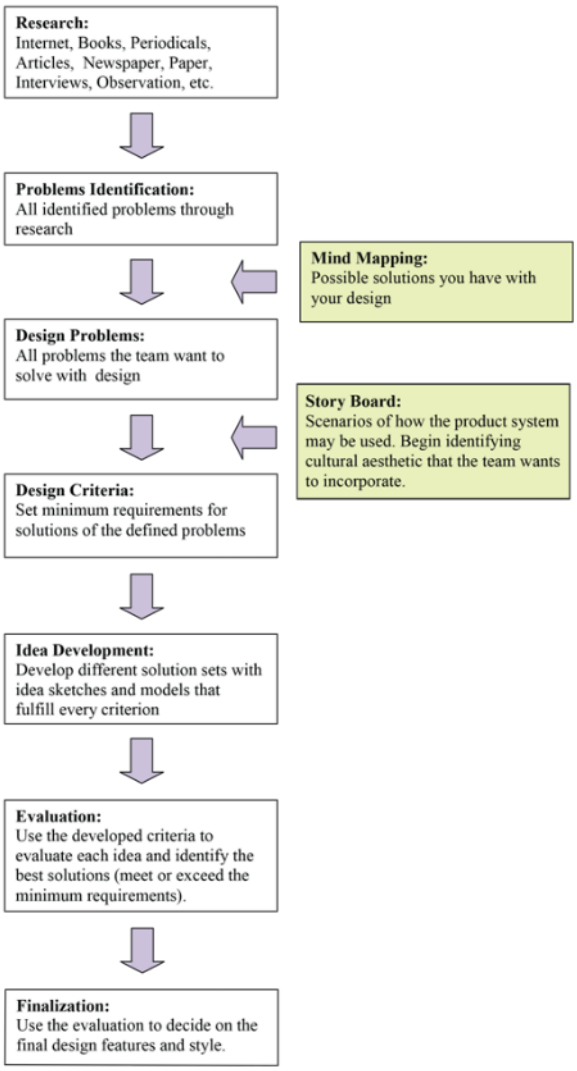
A design brief was given to each team as follows:

> Each group is to develop play equipment that brings enjoyable experiences that bring the users physical, psychological, emotional, and social benefits. The design should contain cultural aesthetics and influence from Taiwan. The equipment must be designed for multi-users. And it should be considered to be inclusive. Before concept development, research on the following topics.
>
> - Child development

- Inclusive design
- Different kinds of disabilities
- Benefit of play
- Taiwanese culture and aesthetics
- The design should mainly focus on mechanical solutions rather than electronic or electrical ones.
- Although the project is focused on physical play, the psychology of the users must be considered.
- Analysis of existing and related products

A design process was presented to the students, as illustrated in Figure 4.

Figure 4: A Flow Chart of the Design Process



The class met twice a week for four hours each class meeting. Besides lectures and assignments, each team worked on the project in discussions and on specific assignments. The collection of pictures in Figure 5 shows different activities during the class. Students also work outside of class time because of the intensity of the tasks, such as research, storyboards,

presentations, sketches, scale models, full-scale orthographic drawings of the final design, final models, etc.

Figure 5: Activities in the Classroom

Project Outcomes

The following are three examples of how the project turned out. Each group researched different subjects concerning inclusive design, play design, and cultural aesthetics. Based on the research, each group first defined a set of play experiences that the group would incorporate into their design, such as sliding, swinging, climbing, etc. Users with disabilities will be considered for the chosen play experiences to design equitable play. Specific cultural aesthetics were applied to the final design.

Case 1: Figure 6 shows that Team 1 incorporated the highest mountain in Taiwan, the banyan tree, bubble tea, pronunciation symbols bopomofo, and the blue magpie as their formal inspirations. The design fulfilled the inclusive aspect by providing a transfer platform for easy access for wheelchair users to get up to the top of the equipment, and the exit of the slide is close to the platform for return. It also provides a more isolated area for certain neurodivergent users to use. The final scale model is shown in Figure 7.

Figure 6: Final Design With Corresponding Cultural Elements As Inspirations

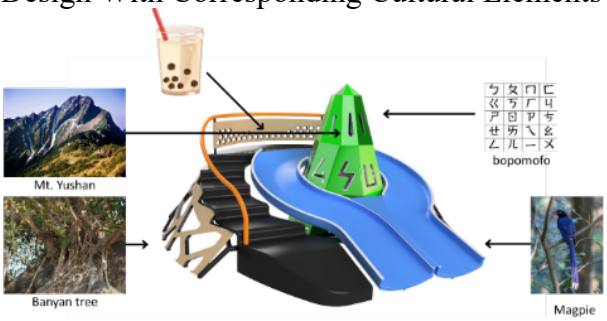
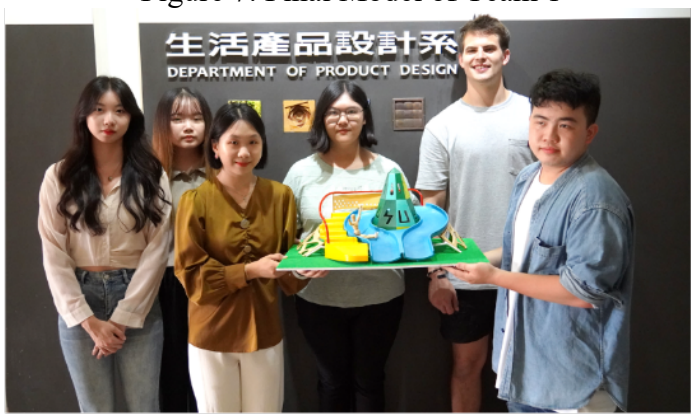


Image Sources:
[Yushan]. (n.d.)., https://pbs.twimg.com/media/Eb7jiVDUEAACYhE.jpg
[Bubble tea]. (n.d.)., https://a0.anyrgb.com/pngimg/632/1830/tea-cup-sumikko-gurashi-cup-of-tea-thai-tea-tapioca-nondairy-creamer-masala-chai-soft-serve-bubble-tea-iced-tea.png
[Bopomofo]. (n.d.)., https://cdn-ak.f.st-hatena.com/images/fotolife/t/tutty527/20210905/20210905161010.png
[Banyan]. (n.d.). https://inaturalist-open-data.s3.amazonaws.com/photos/61482411/large.jpeg
[Blue Magpie]. (n.d.). https://observation.org/media/photo/22187950.jpg

Figure 7: Final Model of Team 1



Will Cooper, Hui-En Tee, Yi-Shan Hong, Yu-Chian Wang, Chia-Hsun Yeh, Gek-Jue Phua

The final design was also 3D modeled to create an in-situ picture, as shown in Figure 8.

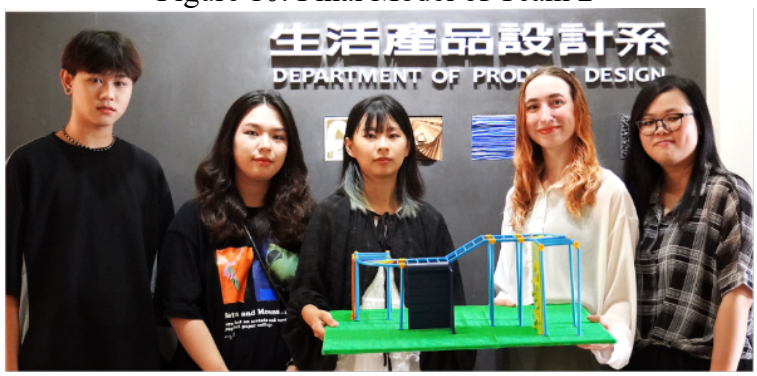
Figure 8: In-Situ Rendering of the Product Being Used

Case 2: Team 2 decided to use elements from the betel nut store, the Taiwan black bear, bubble tea, and roll-up gates, standard in Taiwan (shown in Figure 9), as the aesthetic inspiration for the multi-generational playground equipment they designed. Figure 10 is the scale final model of Team 2, and the in-situ computer-generated rendering in Figure 11.

Figure 9: Cultural Elements Used by Team 2

Image Sources:
[Betel nut store]. (n.d.)., https://ourisland.pts.org.tw/sites/default/files/styles/rk-list/public/field/image/12.JPG
[Black bear]. (n.d.)., https://cw-image-resizer.cwg.tw/resize/uri/https%3A%2F%2Fstorage.googleapis.com%2Fopinion-cms-cwg-tw%2Fckeditor%2F201910%2Fckeditor-5d9ac65e37654.JPG/?w=900&format=webp
[Roll-up gate]. (n.d.)., https://p2.bahamut.com.tw/HOME/creationCover/71/0005108671_B.JPG
[Bubble tea]. (n.d.). https://c.p02.c4a.im/user/1286435/exhibits/3077929/0_8beae16fd09790255c5295dc379eeddb?d=583x585

Figure 10: Final Model of Team 2



Brianna Parmley, Yung-Ying Chang, Chia Ying Tu, Ting-Chieh Chuang, Yu-Jhen Zeng, Xin-Yi Zhong, Chia-Ming Chuang

Figure 11: In-Situ Rendering of the Product Being Used

Case 3: Team 3 used a popular dessert, Pengbing (Brown Sugar Bun Cake), as shown in Figure 12, as the aesthetic inspiration for their inclusive playground equipment design. They use the form to develop an inclusive merry-go-round that provides a transfer platform at the entrance and a somewhat isolated space for some neurodivergent users. The final scale model is shown in Figure 13, and the in-situ computer rendering is shown in Figure 14.

Figure 12: Brown Sugar Bun Cake

Image Sources:
[Pengbing (Brown Sugar Bun Cake)]. (n.d.). https://scontent-atl3-1.xx.fbcdn.net/v/t39.30808-6/251952759_4307792586016599_6081926882722821307_n.jpg?_nc_cat=107&ccb=1-7&_nc_sid=127cfc&_nc_ohc=Kvp3SolJYZMQ7kNvgFj9HZc&_nc_zt=23&_nc_ht=scontent-atl3-1.xx&_nc_gid=AZggyki2NVsDMCGOJ4fqJU1&oh=00_AYDSuCJbPW9MCxMctmb8lJXD232fsGZdvLD6uMCnuOWNIg&oe=67A834C2

Figure 13: The Final Model of Team 3

Derika Taylor, Yi-Syuan Shih, You-Cih Liou, Yeuk Hon Tam, Yu-Lun Huang, Li-Ling Wang, Yi-Chen Chu

Figure 14: An In-Situ Rendering of the Inclusive Merry-Go-Round

Conclusion

Play is for everyone, and lack of play is physically, emotionally, socially, and mentally unhealthy. Playground designers should continually study and define inclusive play as we promote a playful lifestyle so that more people can enjoy equitable play experiences. We learn that a genuine inclusive playground should not focus only on physical disabilities but also on people with neurodivergence. A well-designed inclusive playground brings everyone to play, thus building a healthy and playful community.

In designing inclusive playgrounds, culture should be considered part of the design for better user experiences. Design students need to pay more attention to culture, cultural aesthetics, and how they could incorporate the cultural aspect in their design. Moreover, cultural aesthetics can add characters and uniqueness to the design, as shown in the projects, and enhance the play experience through familiarity, attachment, empathy, cultural sustainability, diversity, and social interaction. Integrating familiarity with design may help neurodivergent users to adapt to the new design more efficiently, thus enhancing their play experience. Applying cultural aesthetics in Inclusive Playground enhances the sense of belonging, respect, and understanding among users of different backgrounds.

References

Magazin, A. J., Morabito, R., & Seatovic, S. (n.d.). *Aesthetics and Culture*—Bibliography—PhilPapers.

Nuske, H. J., Vivanti, G., & Dissanayake, C. (2014). Reactivity to fearful expressions of familiar and unfamiliar people in children with autism: An eye-tracking pupillometry study. *Journal of Neurodevelopmental Disorders, 6*(1), 14. https://doi.org/10.1186/1866-1955-6-14

OpenAI. (2025). ChatGPT (Jan version) [Large language model]. https://chatgpt.com/c

Pierce, K. (2004). The brain response to personally familiar faces in autism: Findings of fusiform activity and beyond. *Brain, 127*(12), 2703–2716. https://doi.org/10.1093/brain/awh289

Ruane, C. (n.d.). *Principles of Inclusive Playground Design*. https://www.nrpa.org/parks-recreation-magazine/2022/september/principles-of-inclusive-playground-design/

The 7 Principles of Inclusive Playground Design. (n.d.). https://www.gametime.com/resources/me2

Contact emails: Tin-Man@auburn.edu
frank@stu.edu.tw

Transformation of Javanese Women's Role From Domestic to Artistic: Interpretation of Kothékan Lesung

Dea Lunny Primamona, The Indonesia Institute of the Arts Surakarta, Indonesia
Bambang Sunarto, The Indonesia Institute of the Arts Surakarta, Indonesia
Nyak Ina Raseuki, Jakarta Arts Institute, Indonesia
Budi Setiyono, The Indonesia Institute of the Arts Surakarta, Indonesia

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
There is a paradoxical phenomenon related to the role of women in Javanese culture. First, the domestic role found in many proverbs is sexism, and second, the artistic role is evidenced by the presence of female musicians on strategic artistic industrial stages. This article aims to demonstrate the significant transformation in the cultural role of Javanese women that will be explored through an interpretation of *kothèkan lesung*. This research uses an interpretative qualitative method. Qualitative data was obtained from fieldwork studies on the *kothèkan lesung* performance in Turi Village, Magetan, East Java. Qualitative data collection was conducted by using techniques such as observation, interviews, documentation, and literature study. Data analysis was carried out using an interpretation approach. The expansion, a form of transformation of roles that occur can be divided into three phases, namely: 1) domestic role 2) aesthetic domestic role, and 3) artistic role. The result shows that *kothèkan lesung* which is a part of domestic roles "Masak, Macak, Manak" is a manifestation of artistic concepts. Thus, the domestic role of Javanese women in household life can also be translated into other forms such as "Composing, Decorating, and Creating." It is not surprising that nowadays there are emerging female Javanese musicians who are adorning the performance stage in Indonesia and even on the international scene, as culturally, this artistic role has been constructed in such a way.

Keywords: *kothèkan lesung*, Transformation, Domestic Role, Artistic Role, Javanese Woman

iafor
The International Academic Forum
www.iafor.org

Introduction

"*Masak, macak, manak*" are the ideal demands for Javanese women. These three moral demands represent the boundaries of domestic roles that are constructed by a patriarchal culture and transmitted from generation to generation (Imama & Reyes, 2021; Sinar, 2021). *Masak* means that women should be able to cook, prepare food, or ensure food security within the family. *Macak* means that women should be able to beautify themselves. *Manak* means that women should be able to bear children. The ideal domestic role of "*Masak, macak, manak*" still serves as a strong guiding principle for a segment of Javanese society.

One of the domestic roles of Javanese women is cooking. In supporting their domestic role, Javanese women use mortars and pestles. The husking tool is used by mothers who work during the harvest season in the fields to separate the rice from its husk. Subsequently, the rice that has been separated from its husk is winnowed using a winnowing basket, sieve, or flat basket until it becomes clean rice, ready to be cooked. The mortar is used daily by village mothers in Java, so the image of the mortar is closely tied to the existence of Javanese women themselves. The connection between the mortar and Javanese women can still be traced through the folklore of Dewi Nawang Wulan or Jaka Tarub (Primamona, 2020a).

The existence of mortar as a support for agriculture has become increasingly rare since its function has been replaced by rice mills. Additionally, the decline of the mortar is also due to the availability of superior rice seeds, the availability of fertilizers, advanced irrigation systems, and increasingly sophisticated agricultural technology. The transformation of the mortar as a tool for processing food into a musical instrument that produces sound has logical consequences for the domestic role of Javanese women. This transformation of the mortar's function results in the expansion of the role of Javanese women, from a domestic role to an artistic role. The romanticism of the past is revived in a performance referred to by the Javanese community as *kothèkan lesung*. Additionally, the *kothèkan lesung* is also indicated as an important artifact record for the history of *karawitan* music in Java. This means that the artistic role of Javanese women is not limited to simple forms of artistic performances but also extends to forms of art with more sophisticated orchestration (*rawit*).

The potential for the expansion of Javanese women's roles in the artistic realm is indeed constrained by certain norms. Javanese *karawitan* has so far presented women in the position of *sindhen*, who are given the same territorial limits as a wife at home, as "*kanca wingking*". In a performance of shadow puppetry, for example, the phrase "*Swargo nunut neroko kathut*" is revealed by a puppeteer. The sentence serves as an affirmation of the cultural position of *sindhen*, representing Javanese wives or women in general within the Javanese cultural landscape. The restrictions through the Javanese proverb are also found in the case of Nida Ria—a group of *qasidah* musicians consisting entirely of women. They released a song in 1992 on the album Vol. 7 titled: "*Swargo Nunut Neroko Katut*." Other example is how women are domesticated in popular culture as an object in the word phrase "*Blonjo Dasteran*" in a Javanese pop song "*Mendung Tanpo Udan*" (Dewi & Primasti, 2022). From this phenomenon, the inferiority of Javanese women can be understood. Inferiority is directed towards Javanese women through the construction of domestic roles and artistic roles. However, these forms of inferiority are also challenged by the presence of female Javanese musicians' figures in the current music scene, such as Desi Kartika Sari, Dewi Persik, Endah Laras, Fitri Carlina, Mustika Woro, Nella Kharisma, Niken Salindri, Peni Candra Rini, Sahita Group, Soimah Pancawati, Via Vallen, Waldjinah, Yati Pesek, and soon.

Through the opening presentation, it can be understood that there is a paradoxical phenomenon related to the role of women in Javanese culture. First, the domestic role is found in many proverbs, and second, the artistic role is evidenced by the presence of female musicians on strategic artistic stages. This article aims to demonstrate the significant transformation in the role of Javanese women. The paradoxical role of women in Javanese cultural traditions will be explored through an interpretation of the art of *kothèkan lesung.*

Transformation or change can occur in all fields, including social, cultural, and art (Astara, 2011; Fakih, 2013; Gunawan, 2018; Ihsan, 2022; Laksmiwati & Ayu, 2011; Orlova, 2019; Schüler, 2013; Sharonova, 2019; Subiyantoro, 2019; Ulianovskii, 2016; Voss, 2021; Wahyudy, 2019; Watts, 2012). Based on the literature review, in the process of transformation, there are factors of replacement or change that can be observed from the change in form. Changes in form can be seen in both concrete and abstract forms. Besides, a few researchers focused on the musical concept, meaning, social interaction, and the function of music in social and cultural life in society (Aesijah, 2007; Astono, 2002; Fitria, 2019; Hanif, 2017; Kartomi, 2017; Laksono, 2020; Primamona, 2020c, 2022; Primamona & Nofer, 2019; Suharto, 2014; Wahyudiarto & Kusmayati, 2003; Wahyudy, 2019; Widiyanto, 2009; Yunita et al., 2019). There is no researcher focused on the social transformation of Javanese women. Therefore, this research focuses on examining the social transformation of domestic roles as dictated by the saying "*Masak, macak, manak*" into the artistic roles of Javanese women through the art of *kothèkan lesung*. Therefore, this research aims to: 1) describe the domestic role of "*Masak, macak, manak*" for Javanese women; 2) interpret the roles of Javanese women between the two domains of domestic and artistic within the art of *kothèkan lesung*; and 3) present the artistic potentials of the performative *kothèkan lesung*.

This research uses an interpretative qualitative method. Qualitative data was obtained from fieldwork studies on the *kothèkan lesung* object in Turi Village, Magetan Regency, East Java, in 2015, and continued from 2018 to 2019. The object of the *kothèkan lesung* is considered capable of representing other types of *lesung* art on the island of Java. Qualitative data collection was conducted using techniques such as observation, interviews, documentation, and literature study. The qualitative data obtained includes: events, statements, documentation, and references about the *kothèkan lesung*, as well as the growing phenomenon of performances and compositions by Javanese women. Data analysis was carried out using an interpretive approach. Interpretation is often referred to as an understanding that involves imagination, fantasy (intuition), creativity, or other forms of spiritual productivity (Ratna, 2010, pp. 306–307). Interpretation can also be seen as the dialectic of explanation and understanding (Ricoeur, 2012). Interpretation in this writing is used as a method to understand reality comprehensively.

Body

Expansion is a form of transformation. The expansion of domestic roles into artistic roles observed in Javanese women can be examined through the phenomenon of *kothèkan lesung* music. The expansion of roles that occur can be divided into three phases, namely: 1) domestic role; 2) aesthetic domestic role; and 3) artistic role.

Mortar and Domestic Role of Javanese Women

The domestic role within the patriarchal system for Javanese women is paradoxical, restricting movement yet simultaneously providing freedom for Javanese women. A woman's

personality is considered ideal if it meets the criteria stated in the proverb, "*Masak, Macak, Manak*" which means cooking, beautifying oneself, and giving birth or providing descendants. When a woman in Java can fulfill these three domestic tasks during her lifetime, she is considered complete or ideal. On the contrary, if one of those three domestic tasks is not performed, a negative social stigma will arise.

In Javanese cultural civilization, the existence of the mortar is very significant. The mortar does not only serve as a tool or device to support agrarian life but also becomes an accommodation for domestic roles or tasks. It helps Javanese women to actualize cultural and moral demands in society while carrying out their domestic tasks. Therefore, the contribution of the mortar can be traced in supporting domestic tasks "Masak, Macak, Manak" through the following interpretation.

The first domestic task is *masak*. Masak means that Javanese women can manage or concoct the results of hunting or farming into food that can be consumed by their families. The mortar and pestle serve as tools that can be used to process rice into cooked rice. The way it works is that the harvested rice is placed in the mortar and then pounded together by the village women until the husks and stalks are separated from the grains. The rice grains are then collected and winnowed to make them cleaner and free from chaff and pebbles. Once the rice is completely clean, it can be cooked into rice and served alongside side dishes and vegetables. These cooking skills are what women use to maintain food security within the family.

The second task is *macak*. This means that Javanese women can beautify themselves. The beautiful appearance of a woman can captivate and awaken the desires of men. Being beautiful has become a natural trait for women in Java. In a Javanese wedding ceremony, there is a ritual called *panyandra*, which is meant to express the beauty of the bride (Gunawan & Lubis, 2017; Kurwidaria, 2015; Utami & Lestari, 2021). An example of a woman's beauty expression is "*Alise nanggal sepisan (wulan tumanggal)*," which means her eyebrows are like the moon, and "*Irunge ngudhup mlathi (ngrunggih)*," which means her nose is sharp or pointed. "*Macak*" has a general meaning of beauty through its visual manifestations. "*Macak*" also has an aural manifestation through the beauty of sound or music. Javanese women can express beauty through the vocal form or sound of musical instrument performances. Javanese women who work daily as rice pounders have the potential to manifest aural beauty using the pestle as an instrument. The *gending* is played together, creating the beauty of intertwined sounds from a specific rhythmic pattern (Hanif, 2017; Jazimah, 2013; Miftahularsyad, 2018; Nagara & Machfauzia, 2020; Primamona, 2020c, 2022; Salim, 2014; Suharto, 2014; Suprapto & Kariadi, 2018). Javanese women are not only capable of beautifying themselves with makeup, but they also possess artistic skills or abilities that are quite appealing.

The third domestic task is *manak*. The word "*manak*" means to give birth or to have descendants. In their culture, married Javanese women are considered perfect if they can give birth, especially to male children. With these domestic duties, Javanese women are expected to have a fertile reproductive system. Good reproduction is at least related to physical and spiritual aspects. In the play of mortar, those physical and spiritual aspects can be accommodated. Playing the mortar is a physical activity that supports both physical and mental vitality. The birth or arrival of new life must also go through the sexual relationship between a man and a woman. So, there are several traditional repertoires related to the metaphor of the human reproductive system, such as the *gending*s: *Kupu Tarung, Bengah*

Singo, Asu Gancet, Bluluk Jeblok, Kutut Manggung, and *Ngudang Anak*. The *gending Kupu Tarung* is one of the repertoires that depicts sexual intercourse between a man and a woman, metaphorically represented through the butterfly (Primamona, 2020c).

Javanese Women Play a Performative Domestic Role in Kothèkan Lesung

In Turi Village, *kothèkan lesung* consists of five *panjak* (players), all of whom are women (Primamona, 2020c, 2020b). They are Saminem, Mainem, Sutirah, Rukmini, and Sainah. Just as batik is one of the cultural products of rice-farming communities, rich with strict rules in its creation and usage (Sumardjo, 2006, p. 183), so too is the connection between the mortar and women, as two identical pairs that cannot be separated. In several art artifacts from the pre-modern era, objects with the shape of hollow containers are always connoted with female characteristics (Sumardjo, 2006, p. 184). Women are constructed by culture for a role in social and cultural life (Primamona, 2020a, p. 29). In farming, men are responsible for preparing the land for planting and during the planting season, they manage irrigation, while women are tasked with sowing, planting, scaring away birds, and during the harvest season, women have the primary duty of transforming rice into rice grains (Peters et al., 2003, p. 159). The task of converting rice into rice grains certainly requires a tool or device, namely a mortar and pestle. In other words, the mortar and pestle represent all activities related to women.

Figure 1: Late Mainem as One of the *Panjak* (*Lesung* Musician) in Turi Village and Her *Lesung* and *Alu*

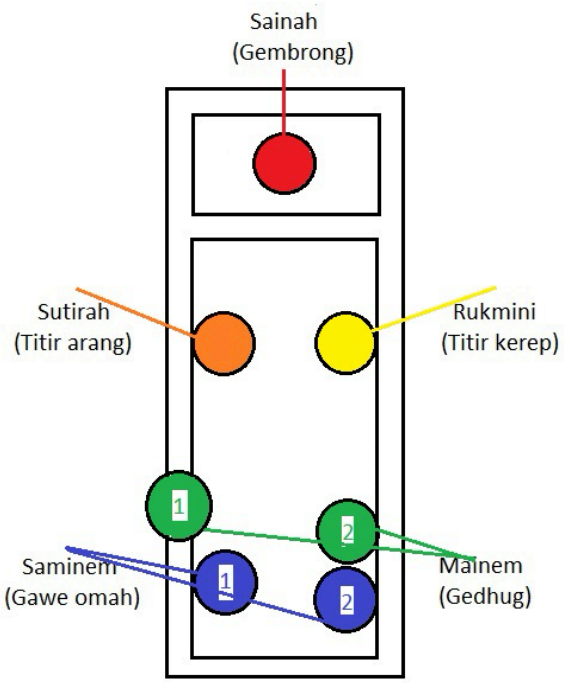
Source: Dea Lunny Primamona, 2021

The mortar is used by women as a tool for pounding rice into grains and also as a sound-producing instrument in various contexts. On one hand, the mortar tells the story of how difficult it is to be a Javanese woman who must manage the kitchen and food needs from the results of farming in the fields. On the other hand, the mortar conveys that women have the potential to be entertainers, stress relievers, and creators of beauty through the songs presented to accompany the men working in the fields.

Each role of the *panjak* (musician of the mortar) has different task tendencies. The role of the house worker is to open the song with an introduction or prelude. The role of the *titir arang* and *titir kêrêp* is to provide consistent beats after the initiation from the housework drummer. The role of the *gending* is to carry the melody in several typical rhythmic patterns. The role

of the *gêmbrong* is to serve as a marker for the end in each section (usually on even counts or on the fourth count).

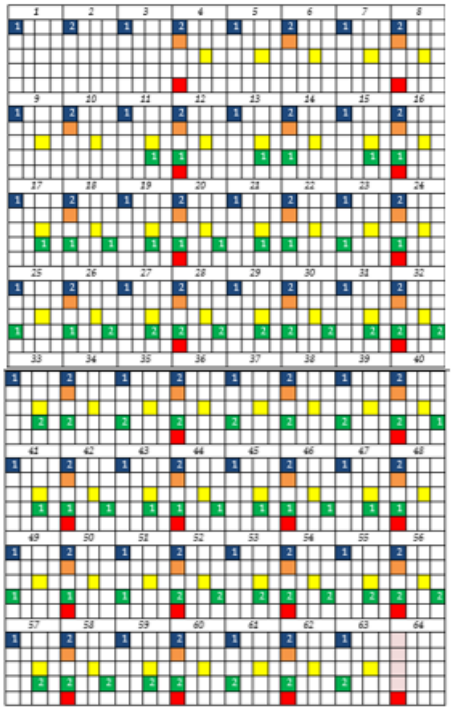
Figure 2: The Position of the Performers According to Their Roles in the "*Wayangan*" *Gending*



In essence, the concept of traditional music is very closely related to the concept of life in a natural way. The orientation of music reading is very contextual to its social and cultural conditions. Therefore, the character of each *panjak* role represents the tasks or social roles in society.

First, the role of the *gawe omah* (house builder) is associated with the activity of constructing a home. A house holds significant meaning for the Javanese people. In East Java (Jawa Mataraman: Pacitan, Trenggalek, Madiun, Tulungagung, Kediri, Blitar, Nganjuk, as well as the Tengger and Osing tribes), there is a tradition called *adeg omah* or establishing a house by considering auspicious days, with the hope of avoiding disasters and ensuring that the home brings good fortune (Sutarto, 2011, p. 1). In this context, "house" means a building for living in. In Javanese culture, a family is considered perfect if they have a house or a place to live. In Javanese philosophy, there are five requirements for a household to be considered perfect, namely: 1) *Garwa* meaning wife; 2) *Wisma* meaning house; 3) *Turangga* meaning horse or vehicle; 4) *Pusaka* meaning weapon or tool for self-defense; and 5) *Kukilo* meaning pet as the utmost source of joy. If contextualized within that philosophy, the role of the housekeeper is indeed vital. The task is to describe the character of a leader in society who is responsible for initiating the continuity of life. In the structure of music, the *panjak gawé omah* is considered the leader who initiates the song with a specific rhythmic pattern.

Figure 3: Tablature Notation of the *Gending* "*Wayangan*"



The blue colors in columns 1, 2, 3, and 4 in Figure 3 indicate the introductory part or opening played by the *panjak gawé omah*. The course of a *gending* greatly depends on the *wiwitan* or opening created by it.

Secondly, the act of *titir arang* and *titir kêrêp* is often associated with the activity of giving a *titir* or a reminder. *Titir* means a blow that is delivered continuously. *Titir* is usually associated with the use of a bamboo tube at neighborhood security posts by the community to signal something specific. There are different patterns of beats produced by the *kentongan*, for example, patterns to signal a fire, the theft of a four-legged animal (livestock theft), and natural emergency events. The role of the *panjak titir arang* and *titir kêrêp* illustrates the character of a guardian in society, tasked with maintaining security, harmony, and the continuity of life. In the play of mortar, there are two types of *titir*, each with different sound colors and playing intensities.

Third, the role of the *panjak gêdhug* who is responsible for giving the beats. *Gêdhug* means a knock, and in the transformation of the word *gegêdhug*, it means leadership (for criminal groups or troublemakers). *Gegêdhug* is the element that fosters the potential for the growth of a great power that is feared. The role of the *panjak gêdhug* depicts the character of someone who possesses great power and is feared within society. Mainem, who played a significant role in the gamelan group at that time, was the oldest player (now deceased) and was respected by the other players.

Lastly, the role of the *panjak gêmbrong* is to provide the final marker of a *gatra* (four beats). *Gêmbrong* has another term, *buntar*, which means the tip of a spear or the very end. The role of a *panjak gêmbrong* illustrates the character of someone who becomes a policy maker within the community. This role is not present intensively, but its presence is very important to mark the end of each even count. Every role of the *panjak* must produce a sound that is loud or an ideal strong voice.

The existence of the roles of *panjak* in the musicality of mortar music illustrates the essential human duties of the Javanese people within a social order. This means that Javanese women are aware that within a group, they have unique roles and skills and make a proportional contribution to the group. In addition to relating to the depiction of social tasks within society, the number five and the position of the *panjak* in this ensemble represent the actualization of the *mancopat kalimo pancer* paradigm. *Mancopat kalimo pancer* illustrates the relationship between the singular and the plural, where the singular is the center and the plural is its followers (Sumardjo, 2006, p. 172). This pattern is believed to bring the transcendent (divine and spiritual) into the immanent world (material, worldly, and human) (Sumardjo, 2006, p. 172). The movement towards the center is also known by the term "*Manunggaling Kawulo Gusti*" (Sumardjo, 2006, p. 173). In the philosophy of the rice field culture, unity and harmony are the foundations for doing everything. In the context of musical readings, the concept of *jumengglung* is seen as representing unity, while the concept of *lontas* signifies the potential individual strength of each *panjak* that must coexist together to fulfill that unity. In conclusion, without the sounds produced by each player in the musical achievements of the mortar music, it will not be able to present the transcendent during a harmonious societal system.

The Artistic Role of Javanese Women

The indication of the artistic role of Javanese women can be traced through the lecture notes of Mas Ngabehi Warsapradongga in 1920. The content of the speech is about the origins of the traditional music ensemble (gamelan). Warsapradongga argues that everything in this world certainly has its history, and thus he divides these origins into four chapters (Sumarsam, 2002, p. 192). The chapters discussed are: 1) the origins of rhythm; 2) the origins of melody; 3) the origins of gamelan; and 4) the origins of *gending* (Sumarsam, 2002, p. 192). This article will briefly discuss several important points that demonstrate an extraordinary development of artistic abilities.

Tatabuhan, according to Warsapradongga, is understood as: 1) sounds from nature, such as the trickling of water, the chirping of birds, the croaking of frogs during rain, and so on; and 2) originating from people who are pounding rice in the fields (Sumarsam, 2002, pp. 196–197). This opinion is quite interesting. He believes that food is the pillar of life, so the efforts of farming and pounding rice with a mortar are a means of sustaining life (Sumarsam, 2002, pp. 197–198). He explains that the consequence of pounding rice is the production of colorful sounds, some low, some medium, and some high (Sumarsam, 2002, p. 199). The uneven thickness of the mortar's wooden surface results in different sounds (Sumarsam, 2002, p. 199). Thicker surfaces result in higher sounds, while thinner surfaces lead to lower sounds (Sumarsam, 2002, p. 200). In line with Warsapradongga's opinion, in organology, it is explained that the thinner a surface is, the more vibrations it will produce. The number of vibrations that occur in one second is called frequency. Thus, the thinner a cross-section is, the more vibrations will be, and the higher the frequency and pitch produced. The different sound colors from the ensemble create a pleasing rhythmic pattern known as *kothèkan* (Sumarsam, 2002, p. 201). Based on Rahayu Supanggah, *kothèkan* refers to a beating technique complementarities between the two similar *ricikan* (instruments) or more at a distance wasp of half beat, but based on Abdul Rahman and friends, the technique can also be played with one instrument by one player only (Rachman et al., 2021; Supanggah, 2009). The mortar is played with the technique of some *panjak*s. The mortar and pestle used for enjoyment is featured in several social activities, such as during the celebration of the full moon in the harvest season and preparations for significant wedding events.

According to Warsapradongga's notes, the *kothèkan lesung* is one of the proofs of the artistic awareness of Javanese women. Javanese women understand the difference between high and low tones. The awareness of the differences in pitch inspired the birth of scales (Sumarsam, 2002, p. 205). Warsapradongga believes that harmony is created when the high and low sounds are recognized and arranged from the lowest to the highest and vice versa, from the highest to the lowest (Sumarsam, 2002, p. 206). The tuning system develops to the point of awareness of distance. Thus, according to Warsapradongga, the tuning system where the distance between each note remains is called *sléndrò*, and the tuning system that results from notes inserted into the *sléndrò* tuning is referred to as *pélag* (good) or *pelog* (Sumarsam, 2002, pp. 207–209). The presence of the barrel is increasingly developing and captivating. A song or melody is formed from the existing scale (Sumarsam, 2002, p. 2013). In this note, it is even written that "...the gamelan also draws inspiration from the mortar..." (Sumarsam, 2002, p. 213). Gamelan is a manifestation of the vernacular of its community. Initially, gamelan was made from materials that were easily found in nature, such as wood and bamboo, arranged according to the scales that had already been discovered. (Sumarsam, 2002, p. 2015). Thus, the *gambang, suling, gumbeng*, and angklung were formed (Sumarsam, 2002, p. 214). Gamelan serves as a good medium for songs or *sekar*. After that, the idea arose to create gamelan not only from materials easily found in nature, leading to the creation of gamelan made from *gongsa* (derived from the word *gasa*, a combination of the words copper and *rejasa*) (Sumarsam, 2002, pp. 214–115).). This gamelan is named gamelan *gongsa* (Sumarsam, 2002, p. 215). Then, more and more songs or compositions are created and accommodated by this gamelan. The increasing number of melodies is then arranged in such a way within a rhythm that a composition is formed (Sumarsam, 2002, pp. 218–219).

The notes from Warsapradongga's lecture illustrate that the mortars used to support domestic roles can stimulate the birth and development of Javanese musicality. Although it is not recorded whether a specific gender performed all these extraordinary things, this account proves that Javanese women have a close connection to artistic potential. As stated at the beginning, the presence of mortars is inherent in all activities performed by women. Thus, artistic sound activities are also carried out by Javanese women.

The process of developing Javanese women's musicality occurs in a back-and-forth manner or is not linear, so it does not completely erase previous traces. This is marked by the discovery of the term *gending* in the *kothèkan lesung* in Turi Village, Magetan (D. L. Primamona, 2020b, 2020c). According to Warsapradongga, *gending* is the final stage of the long development scheme of percussion, so *gending* in the *kothèkan lesung* can be assumed to be "taking a shortcut." The existence of eleven *gending lesung* in Turi Village, Magetan, such as *Dulènthèng, Kupu Tarung, Grajagan, Kutut Manggung, Slénthak/Sémplak Jaran, Ngudang Anak, Bléndrong, Titir Ilang, Bluluk Jêblog, Njojrog, Gambang, Madhung*, and *Wayangan* shows no substantial similarities with gamelan pieces. The existence of eleven or even more *gending lesung* proves the artistic productivity of Javanese women. The number of works that arise from composing is a manifestation of the amount of food ingredients provided in the cooking activity. The beauty that emerges from artistic activities is on par with the beauty or attractiveness produced by the act of self-makeup. All of those points to symbols of fertility, both physical and spiritual.

Conclusion

"*Masak, Macak, Manak*," is a manifestation of artistic concepts, thus the domestic role of Javanese women in household life can also be translated into other forms such as

"Composing, Decorating, and Creating." It is not surprising that nowadays there are emerging female Javanese composers who are adorning the performance stage in Indonesia and even on the international scene, as culturally, this artistic role has been constructed in such a way.

Acknowledgments

Thanks to the promotor and co-promotor team, for the technical assistance. Thank you Puslapdik (Pusat Layanan Pembiayaan Pendidikan) and LPDP (Lembaga Pengelola Dana Pendidikan) for the financial material support.

References

Aesijah, S. (2007). Makna Simbolik dan Ekspresi Musik Kotekan. *Harmonia: Journal of Arts Research and Education*, *8*(3).

Astara, I. W. W. (2011). Multikulturalisme Kesenian Barongsai di Desa Adat Kuta. *Mudra Jurnal Seni Budaya*, *26*(1), Article 1. https://doi.org/10.31091/mudra.v26i1.1588

Astono, S. (2002). Lesung Banarata Karawitan di Akar Rumput. *Keteg: Jurnal Pengetahuan, Pemikiran Dan Kajian Tentang" Bunyi"*, *2*(1).

Dewi, S., & Primasti, D. (2022). Perempuan, Daster dan Liyan: Domestifikasi Perempuan dalam Lagu "Mendung Tanpo Udan." *Jurnal Komunikasi Nusantara*, *4*(1), 45–53. https://doi.org/10.33366/jkn.v4i1.105

Fakih, M. (2013). Analisis Gender dan Transformasi Sosial (Toto Rahardjo, Ed.). *Yogyakarta: Pustaka Pelajar Offset*.

Fitria, E. (2019). *Tradisi Tabuh Lesung Sebagai Sumber Nilai Karakter Masyarakat Kembangbilo Kecamatan Tuban Kabupaten Tuban*. *07*, 15.

Gunawan, G., & Lubis, M. (2017). Metafora dalam Tanggap Wacana Panyandra Upacara Panggih Manten Etnis Jawa. *JURNAL SASINDO (Program Studi Sastra Indonesia FBS UNIMED)*, *6*(2), Article 2. https://jurnal.unimed.ac.id/2012/index.php/sasindo/article/view/7769

Gunawan, I. (2018). Seni dan Transformasi. *JSRW (Jurnal Senirupa Warna)*, *6*(2), Article 2. https://doi.org/10.36806/.v6i2.65

Hanif, M. (2017). Kesenian Ledug Kabupaten Magetan (Studi Nilai Simbolik dan Sumber Ketahanan Budaya). *Gulawentah:Jurnal Studi Sosial*, *2*(2), 79–90. https://doi.org/10.25273/gulawentah.v2i2.1895

Ihsan, R. (2022, September 18). *Transformasi Rantok: Dari Teknologi Tradisional ke Pertunjukan Musik*. Etnis - Warta Identitas Bangsa. http://etnis.id/transformasi-rantok-dari-teknologi-tradisional-ke-pertunjukan-musik/

Imama, Y. N., & Reyes, M. Y. (2021). Masak, Macak, Manak Nowadays through Challenge-Based Research on Nol Dance Creation. *Dewa Ruci: Jurnal Pengkajian Dan Penciptaan Seni*, *16*(2), Article 2. https://doi.org/10.33153/dewaruci.v16i2.3232

Jazimah, I. (2013). Nilai Gotong-Royong dan Tenggang Rasa dalam Kothekan Lesung Banyumasan. *Pendidikan Budi Pekerti Melalui Seni …*, *Query date: 2022-09-29 12:37:14*. http://kebudayaan.kemdikbud.go.id/bpnbyogyakarta/wp-content/uploads/sites/24/2015/06/Jantra_Vol._8-_No._-1_Juni_2013.pdf#page=56

Kartomi, M. (2017). From Agricultural Tool to Identity Symbol: Musical and Socio Political Change in the Pestle and Mortar Music of the Natuna Archipelago, Indonesia. *Ethnomusicology*, *61*(1), 87–114. JSTOR. https://doi.org/10.5406/ethnomusicology.61.1.0087

Kurwidaria, F. (2015). *Keunikan dan Keestetisan Pemakaian Bahasa Rinengga dalam Wacana Panyandra Upacara Adat Pernikahan Masyarakat Jawa*. 286–290. http://lamas.undip.ac.id

Laksmiwati, I. A. A., & Ayu, I. (2011). Transformasi sosial dan perilaku reproduksi remaja. *Jurnal Studi Jender SRIKANDI*, *3*(1).

Laksono, J. T. (2020). Pelatihan Iringan dan Teknik Garap Gejog Lesung pada Grup Seni Gejog Lesung "Kumandhang." *Jurnal Pengabdian Seni*, *1*(1), 42–50.

Miftahularsyad, M. (2018). *Eksistensi Komunitas Gejog Lesung Di Yogyakarta dalam Penyutradaraan Film Dokumenter Potret "Tjipto Sworo"* [Skripsi Prodi Televisi dan Film Fakultas Seni Media Rekam]. ISI Yogyakarta.

Nagara, M. M. C., & Machfauzia, A. N. (2020). The Meaning of Qualisign, Sinsign, and Legisign of Gejog Lesung Art "Mukti Lestari" in Sewon Bantul. *Proceedings of the 3rd International Conference on Arts and Arts Education (ICAAE 2019)*. 3rd International Conference on Arts and Arts Education (ICAAE 2019), Yogyakarta, Indonesia. https://doi.org/10.2991/assehr.k.200703.034

Orlova, L. V. (2019). The evolution of corporate culture in the social and economic transformation. *Opcion*, *35*(Query date: 2022-10-30 12:55:56), 547–563.

Peters, J. E. E., Santos, R. P., Hastanto, S., Linh, N. P., Nasuruddin, M. G. bin, Ramli, J. bin H., Sikhotchounnamany, S., Ya, U. M. T., & Rachakul, N. (2003). *Sonic Orders in ASEAN Musics: A Field and Laboratory Study of Musical Cultures and Systems in Southeast Asia*. ASEAN Committee on Culture and Information.

Primamona, D. L. (2020a). *Mortar Music Tradition as the Javanese Agrarian Folklore in Magetan, Indonesia*. 21–31.

Primamona, D. L. (2020b). Mortar Music Tradition as the Javanese Agrarian Folklore in Magetan, Indonesia. *4th International Conference on Arts Language and Culture (ICALC 2019)*, 21–31.

Primamona, D. L. (2020c). Pemahaman Aspek Metafora Gending Kupu Tarung Pada Musik Lesung. *Sorai: Jurnal Pengkajian Dan Penciptaan Musik*, *13*(1), 1–12.

Primamona, D. L. (2022). Tradisi Ledug (Lesung Bedug) Sura dalam Perspektif Strategi Kenusantaraan di Magetan. *Haluan Sastra Budaya*, *6*(1), Article 1. https://doi.org/10.20961/hsb.v6i1.58253

Primamona, D., & Nofer, D. (2019). Ledhug: Syncretic Music Culture in Magetan. *Dewa Ruci: Jurnal Pengkajian Dan …*, *Query date: 2022-09-29 12:37:14*. https://jurnal.isi-ska.ac.id/index.php/dewaruci/article/view/2806

Rachman, A., Teangtrong, P., Jirajarupat, P., & Cahyono, I. N. (2021). A Comparative Study of Playing Patterns on Gambang and Ranat Ek Instruments. *Harmonia: Journal of Arts Research and Education*, *21*(2), 356–368.

Ratna, N. K. (2010). *Metodologi Penelitian Kajian Budaya dan Ilmu Sosial Humaniora Pada Umumnya*. Pustaka Pelajar.

Ricoeur, P. (2012). *Teori Interpretasi, Memahami Teks, Penafsiran, dan Metodologinya.* IRCiSoD.

Salim, S. (2014). Ketoprak Lesung "Cahyo Budoyo "di dusun Sidowayah, Hargowilis, Kokap, Kulon Progo (Suatu Tinjauan Aspek Sosial Budaya). *Canthing*, *2*(2), 14–24.

Schüler, S. (2013). Establishing a 'culture of Prayer': Holistic spirituality and the social transformation of contemporary evangelicalism. *Annual Review of the Sociology of Religion*, *4*(Query date: 2022-10-30 12:55:56), 263–280. https://doi.org/10.1163/9789004260498_016

Sharonova, S. A. (2019). Culture and education: Social transformation and multicultural communication. *Sotsiologicheskie Issledovaniya*, *2019*(12), 146–147. https://doi.org/10.31857/S013216250007741-8

Sinar, D. oleh. (2021). *Tuntutan Perempuan: Masak, Macak , dan Manak*. http://lpm-sinarfkip.trunojoyo.ac.id/2021/04/tuntutan-perempuan-masak-macak-dan-manak.html

Subiyantoro, S. (2019, November 14). *The Symbolic Transformation of Loro Blonyo Sculpture in the Javanese Traditional House is an Anthropological Perspective*. International Conference on Arts, Language, and Culture (ICALC).

Suharto, S. A. (2014). The Lesung Music in the Village of Ledok Blora Regency. *Harmonia: Journal of Arts Research and Education*, *14*(1), 65–71. https://doi.org/10.15294/harmonia.v14i1.2851

Sumardjo, J. (2006). *Estetika Paradoks*. Sunan Ambu Press.

Sumarsam. (2002). *Hayatan Gamelan: Kedalaman Lagu, Teori, dan Perspektif*. STSI Press.

Supanggah, R. (2009). *Bothekan Karawitan II: Garap*. ISI Press.

Suprapto, W., & Kariadi, D. (2018). Pelatihan Gejog Lesung pada Pemuda Dusun Gunturan, Triharjo, Pandak, Bantul Sebagai Upaya Pelestarian Budaya Bangsa. *Jurnal ABDINUS : Jurnal Pengabdian Nusantara*, *2*(1), 51. https://doi.org/10.29407/ja.v2i1.11888

Sutarto, A. (2011). *Menggelar Mantra Menolak Bencana*. Pemerintah Propinsi Jawa Timur, Dewan Kesenian Jawa Timur.

Ulianovskii, A. (2016). Social media impact on the transformation of imaginary political characters in Russian youth culture. *Communications in Computer and Information Science*, *674*(Query date: 2022-10-30 12:55:56), 35–44. https://doi.org/10.1007/978-3-319-49700-6_5

Utami, R. R., & Lestari, T. E. (2021). Language Style of Beauty and Kencana Wungu's Position in Damarwulan Manuscript (Ethnolinguistic). *Sutasoma : Jurnal Sastra Jawa*, *9*(1), Article 1. https://doi.org/10.15294/sutasoma.v9i1.45710

Voss, B. L. (2021). Disrupting Cultures of Harassment in Archaeology: Social-Environmental and Trauma-Informed Approaches to Disciplinary Transformation. *American Antiquity*, *86*(3), 447–464. https://doi.org/10.1017/aaq.2021.19

Wahyudiarto, D., & Kusmayati, H. (2003). Kothekan Lesung dalam Upacara Ruwatan di Purwopuran, Jawa Tengah. *Sosiohumanika*, *16B*(2), 247–257.

Wahyudy, S. (2019). Transformasi Budaya Tradisi Masyarakat Agraris Pada Generasi Muda: Analisis Transformasi Gendongan Lesung di Desa Wisata Kandri. *Kecamatan Gunung Pati, Kota Semarang (Doctoral Dissertation, UNNES)*.

Watts, M. (2012). The Coexistence of Folk and Popular Culture as Vehicles of Social and Historical Activism: Transformation of the Bumba-meu-boi in Northeast Brazil. *Journal of Popular Culture*, *45*(4), 883–901. https://doi.org/10.1111/j.1540-5931.2012.00963.x

Widiyanto, D. M. (2009). *Kothekan Lesung Sebagai Musik Liturgi Studi Kasus: Gereja Katolik Santo Pius X Karanganyar* [Tesis S2 Prodi Penciptaan dan Pengkajian Seni]. ISI Surakarta.

Yunita, S., Ismunandar, I., & Silaban, C. (2019). Bentuk Penyajian Musik Iringan Tari Ngajat Lesung di Desa Seluas Kecamatan Seluas Kabupaten Bengkayang. *Jurnal Pendidikan Dan Pembelajaran Khatulistiwa (JPPK)*, *8*(9), Article 9. https://doi.org/10.26418/jppk.v8i9.35464

Contact email: dealunny@gmail.com

From Data Points to Polygons: An Innovative Approach to Geolinguistic Mapping

Hiromi Oda, Tokyo Online University, Japan

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
This paper introduces a software tool that implements an innovative type of geolinguistic map, originally proposed by Hideo Suzuki in the 1980s. The software, developed using the R language, automates the map creation process based on word forms and geographic coordinates. Unlike traditional maps, this new type not only displays the locations of word occurrences but also outlines their distribution areas, allowing us to visualize how similar word forms are used in geographically distant regions, such as parts of India and Scandinavia. In Suzuki's time, collecting word data required extensive library research, and mapping involved manually plotting data on large physical maps. Today, with advancements in computing and AI, this process can be fully automated. The software analyzes word similarities using metrics like edit distance, groups the words accordingly, and generates two layers for each group: one displaying the geographic data points, and the other showing a smoothed polygon encircling the distribution area of each group. Both layers can be toggled independently, and multiple-word groups can be displayed simultaneously for comparison. The map is interactive, allowing users to zoom in or out and quickly focus on specific regions or word groups. Thanks to recent advances in AI and the availability of online linguistic resources, data collection has also become significantly more efficient. This tool opens up new possibilities for studying language distribution patterns on a global scale. This software tool is implemented using R and its geographic computing packages, all of which are generously available under open licenses.

Keywords: Geolinguistic Map, GIS (Geographic Information System), R Language, Hideo Suzuki

iafor
The International Academic Forum
www.iafor.org

Introduction

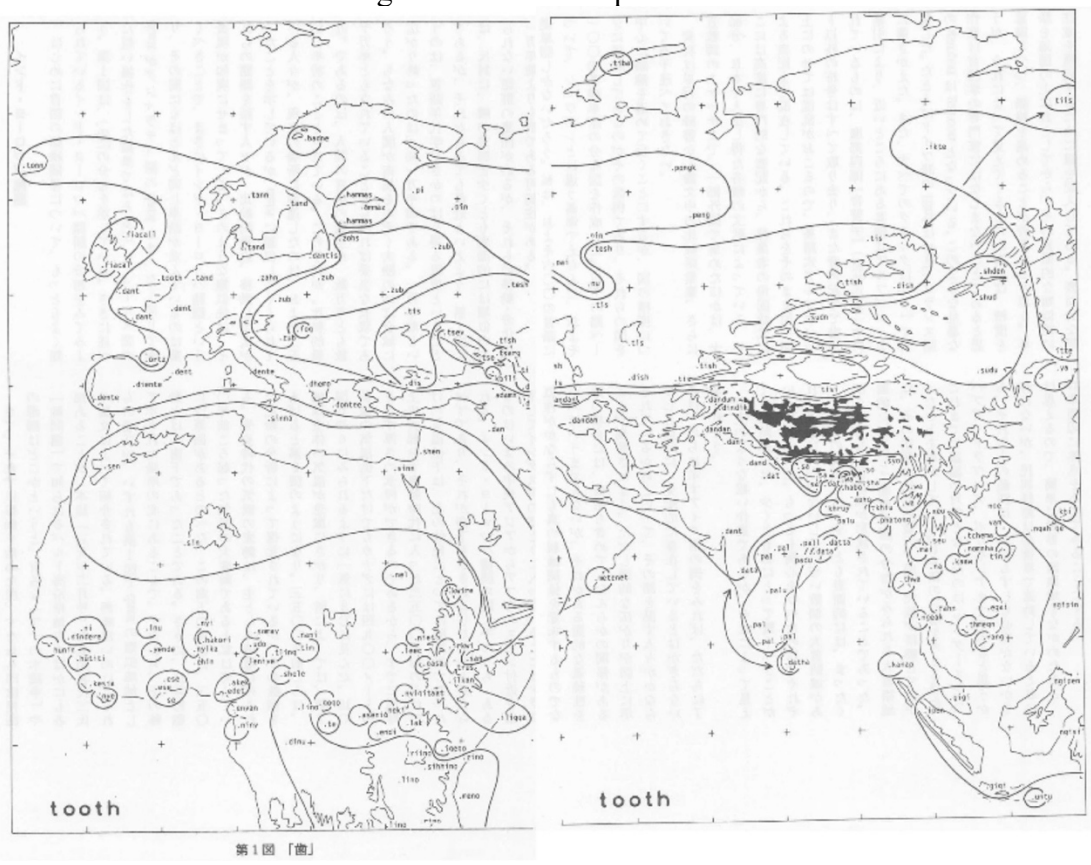
Hideo Suzuki, a climatologist, hypothesized that long-term climate changes drive human migrations, which, in turn, influence language evolution. To analyze this further, he spent a decade collecting Swadesh-style basic vocabulary items from approximately 600 languages and plotted word forms on large maps. A unique aspect of his maps is that he drew encircling lines to indicate the distribution areas of similar word forms.

Figure 1 presents a sample map for the word "tooth" (Suzuki, 1990). By following the encircling line that covers the lower part of Scandinavia, one can trace a group of words stretching as far as parts of India. Suzuki simply collected word forms from various languages and plotted them on a large map, making it easy to observe connections between geographically distant regions in the East and West, even without prior knowledge of the Indo-European language family.

Although Suzuki's map-making process was laborious and time-consuming, advancements in computer technology and the availability of online resources now make it feasible to implement this method computationally. This project aims to reproduce Suzuki's maps using the R programming language and its GIS packages. Since some implementation details will be discussed elsewhere, this report primarily focuses on the usage and benefits of the automatic mapping tool, the main outcome of this project.

The remainder of this paper is structured as follows: first, Suzuki's original map-making process is summarized. Next, the implementation principles are explained. Finally, two sample datasets are used to verify the implementation.

Figure 1: Suzuki Map "Tooth"



第1図「歯」

Suzuki Map Creation Procedure

In this section, we summarize the procedure for creating the Suzuki Map, following Suzuki (1990). The process can be divided into three major steps: (1) collecting basic vocabulary data, (2) plotting the data on a map, and (3) grouping similar words.

(1) Collection of Basic Vocabulary Data

Basic vocabulary data is gathered from a variety of sources, including dictionaries and records left by missionaries. The term "basic vocabulary" refers to a list proposed by Morris Swadesh (Swadesh, 1950), which includes words related to body parts (e.g., "eye," "ear") and common concepts (e.g., "come," "cold") that are considered historically stable. Lexicostatistics assumes that these words change at a constant rate over time. The collected data comes in various formats, and for consistency, all transcriptions are standardized into English-style Romanization. Suzuki reports collecting data on approximately 100 modified Swadesh list items from about 600 languages worldwide.

(2) Map Creation

A large world map, approximately the size of a single bed mattress, is prepared, and the collected vocabulary data is plotted onto it.

(3) Grouping Similar Words

This step is the defining feature of the Suzuki Map. Regarding lexical similarity assessment, Suzuki states:

> The determination of similarity is subjective, but I believe that most readers will find the examples presented below to be similar. In fact, even words that are deemed dissimilar here may be considered similar by linguists. (p. 16)

Thus, the judgment of similarity is primarily intuitive. If others attempt to recreate this map, a key concern is whether their assessments will align with Suzuki's, raising issues of consistency and the need for methodological refinement.

Implementation of Suzuki Map Using R and GIS Packages

This section outlines the approach used to reproduce the Suzuki Map.

Basic Approach to Reproduction

Certain aspects of the original Suzuki Map cannot be implemented exactly as they were, necessitating adaptations for a computer-based application. Additional steps are required to ensure compatibility with modern mapping tools while preserving the core methodology.

System Used

To implement the Suzuki Map digitally, we utilize the R programming language along with specialized packages for map creation. R is well-suited for visualization and offers a variety of

user-friendly geographic information system (GIS) packages essential for linguistic mapping. Below, we introduce two key packages used in this project.

The sf Package

The sf package is a toolkit for handling geospatial data in R. The name sf refers to Simple Features, a standard format for geospatial data representation. This package enables seamless integration of Simple Features within the R environment.

Simple Features is an internationally recognized standard that provides a uniform representation of geospatial data. It defines models for concisely representing geographical entities such as points and regions. This project adopts the following core concepts:

- Point: A single geographic location
- Linestring: A sequence of connected line segments representing features such as rivers or roads
- Polygon: A closed area defined by a collection of points

By using the sf package, these objects can be manipulated in a manner similar to conventional data frames in R.

The tmap Package

The tmap package is a toolkit for creating and visualizing maps in R. While it supports the generation of static maps, its key functionality in this project is its ability to create interactive maps. This feature allows for dynamic exploration of linguistic data distributions.

Data Collection

Data collection is a fundamental challenge in linguistic mapping. However, the availability of online linguistic datasets and AI tools such as ChatGPT significantly reduces the workload. In this project, sample data was exclusively collected using ChatGPT for verification purposes.

Sample Data

To evaluate whether the proposed method produces results comparable to those of Suzuki, we prepared a sample dataset on the Indo-European language family. The data collection process followed these steps:

1. *Generating a list of Indo-European languages* and obtaining the approximate latitude and longitude of their central regions where the languages are spoken.
2. *Identifying and listing words for "mouth" and "tooth"* in each language. While Suzuki's Figure 1 focuses on tooth, this project verifies the approach using two sample datasets.

The collected data underwent minimal manual editing, primarily for formatting into CSV files.

The resulting dataset for the words "mouth" includes 58 lexical items. Table 1 presents the first few entries of this sample data. The data file must include columns for the word form, longitude, and latitude. Additionally, an optional column labeled "Language" below can be included to provide supplementary information. This information will be displayed in a small pop-up window when a data point is clicked on the generated map.

Table 1: Sample Data Prepared in the CSV Text Format

```
Word, x, y, Language
mond,18.4241,-33.9249,Afrikaans
gojë,19.8187,41.3275,Albanian
beran,44.4991,40.1792,Armenian
aho,-2.9340,43.2630,Basque[1]
rot,27.5615,53.9045,Belarusian
mukh,90.4125,23.8103,Bengali
usta,18.4131,43.8563,Bosnian
genou,-1.6778,48.1173,Breton
usta,23.3219,42.6977,Bulgarian
```

Word Grouping

The words listed in the *Word* column of the sample dataset are classified into groups. While Suzuki originally performed this classification intuitively, a more objective and consistent method is preferable to ensure reproducibility. Therefore, we employ a widely recognized approach known as *edit distance* (also referred to as *Levenshtein distance*) to calculate linguistic similarity and categorize words accordingly.

Edit distance measures the minimum number of operations (insertion, deletion, or substitution) required to transform one string into another. A smaller edit distance indicates a higher degree of similarity between words.

R provides the adist function for computing edit distances, which we use to calculate the distances between words in the dataset. For example, calculating the distances between six sample words yields the following results.

Table 2: Word Distance Matrix Based on Edit Distance Measure

```
                [1] "boca"   "bejeth" "usta"   "sta"    "mund"
"mond"

                [,1] [,2] [,3] [,4] [,5] [,6]
                [1,]    0    5    3    3    4    3
                [2,]    5    0    5    5    6    6
                [3,]    3    5    0    1    4    4
                [4,]    3    5    1    0    4    4
                [5,]    4    6    4    4    0    1
                [6,]    3    6    4    4    1    0
```

Table 2 shows that the distances between words 3 and 4, as well as words 5 and 6, are both 1. By setting the distance threshold to 1, we obtain the following word groups:

Table 3: Word Groups of the Sample Word List With the Threshold 1

```
[1] "boca"
```

[1] *Basque* is not an Indo-European language, but it will be left as is since this is part of the results produced by ChatGPT.

```
[2] "bejeth"

[3] "usta" "sta"

[4] "mund" "mond"
```

POINT Objects

Words that do not belong to any group remain as *point objects*. In fact, all data points are initially treated as point objects during the initial data import phase.

In Suzuki's original map, even isolated data points are enclosed by boundary lines. Following this convention, we also enclose point objects within boundary lines. This approach highlights when a data point does not belong to a surrounding word group, as demonstrated in Figure 2. Although group membership can be distinguished by color, enclosing individual points with boundary lines enhances visual clarity.

In geospatial terminology, the region surrounding an object is called a *buffer*. Following this practice, we refer to the line that encircles an object as the *buffer line*. In this project, we consistently apply a 30 km buffer around objects and perform smoothing operations on the buffer lines.

Figure 2: A POINT Object With the Buffer Line

LINESTRING Objects

When word grouping results in a group containing exactly two words, the connection is represented as a *linestring object*, as illustrated in Figure 3. The two words are connected by a line, and a 30 km buffer is applied around it.

Figure 3: A LINESTRING Object

POLYGON Objects

If a group consists of three or more words, it is represented as a *polygon object*. The same 30 km buffer and smoothing operations are applied, ensuring that the display renders data points along with their enclosing buffer lines.

However, when multiple groups exist and buffer lines overlap, users may wish to hide certain buffer lines and display only the data points of a specific group. To accommodate this, we separate the *data points layer* and the *buffer line layer*, allowing users to toggle their display independently.

Additionally, to maintain consistency, each data point and its corresponding buffer line are assigned the same color and are managed as a paired list structure.

To demonstrate the use of these two layers, we examine the following group of words from the sample dataset.

```
"usta" "usta" "usta" "sta" "usta"
"usta" "usta"  "sta"  "usta"
```

In Figure 4, both the *data points layer* and the *buffer line layer* are displayed, demonstrating that the buffer lines effectively enclose the corresponding word groups. If necessary, the display can be adjusted to show only data points (Figure 5) or only the buffer lines (Figure 6).

Figure 4: A POLYGON Object

Figure 5: Only the Data Points

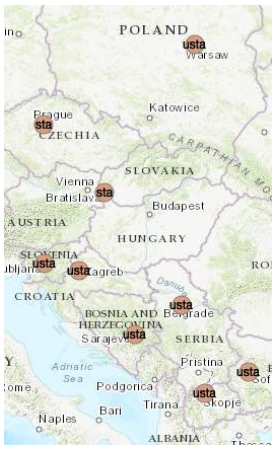


Figure 6: Only the Buffer Line

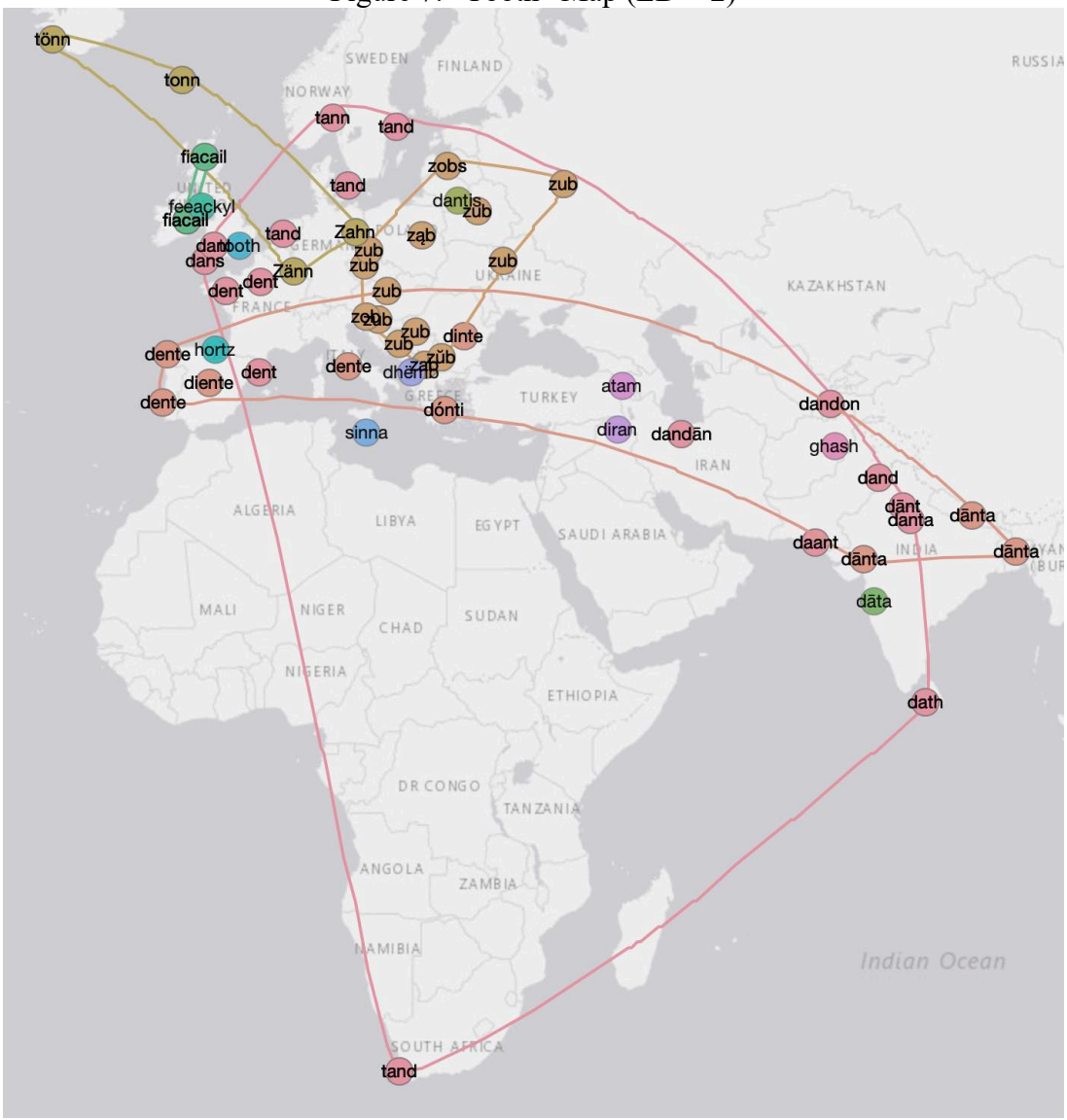
Final Form: Reproducing the Suzuki Map Using R and GIS Packages

The process of visualizing the results of word grouping based on edit distance and faithfully reproducing Hideo Suzuki's map on a computer screen has been outlined above.

In Suzuki's original work, the first example introduced was the word *"tooth."* We collected a sample dataset using the same procedure for *"tooth."* The grouping process can be controlled by adjusting the edit distance threshold. For example, when words with an edit distance of 2 or less are grouped together, 15 groups are formed. Figure 7 presents these groups using the *tmap* package. The resulting map reveals linguistic connections spanning vast regions from east to west.

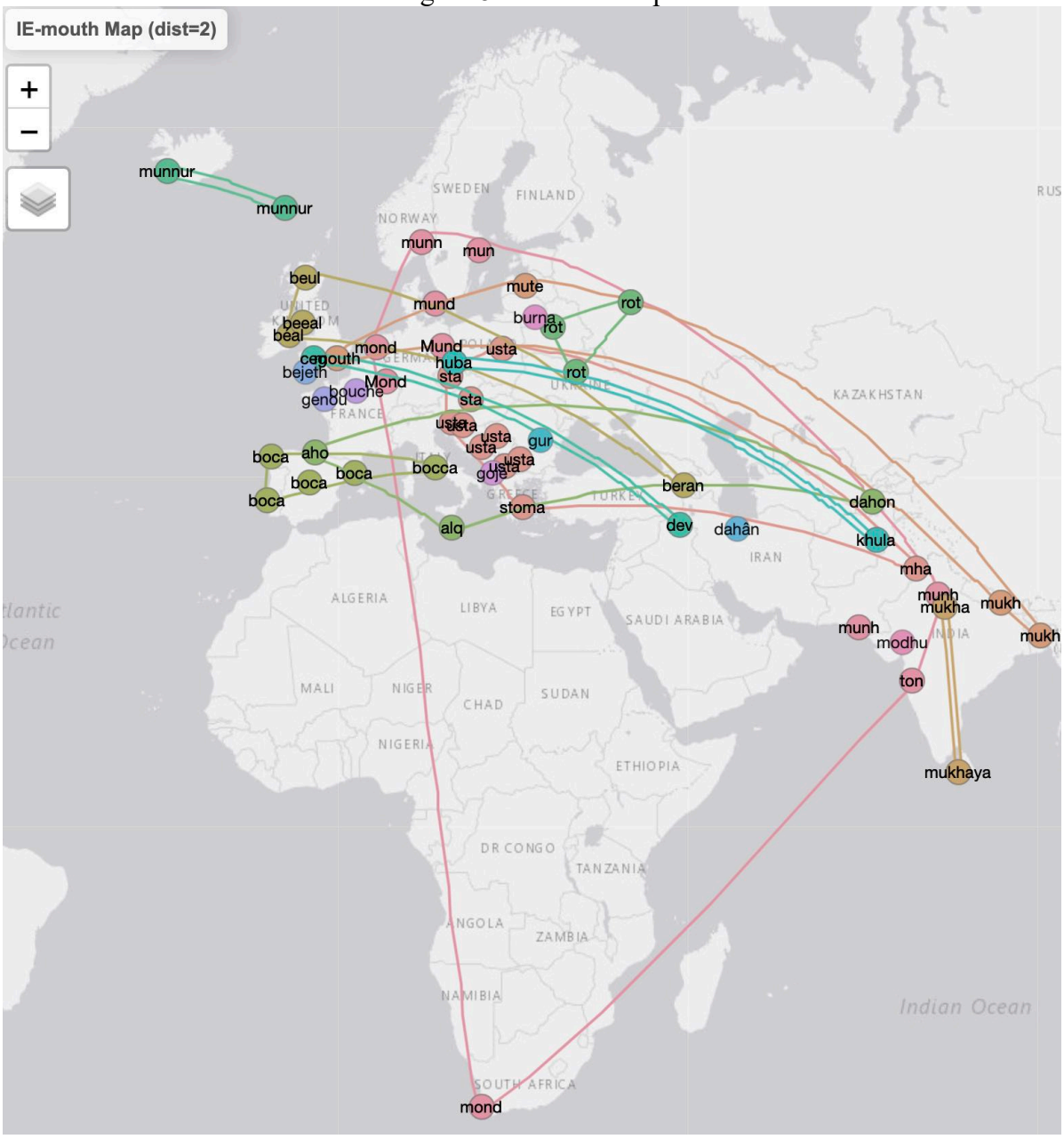
The largest group extends as far as *Afrikaans*, historically linked to Dutch due to colonial influences, demonstrating a strong connection with Dutch and related languages. This group also spans a vast area, connecting regions from *India to the Scandinavian Peninsula*. This visualization replicates Suzuki's original map, illustrating the expansive distribution of basic vocabulary across a wide geographical range.

Figure 7: "Tooth" Map (ED = 2)



We can draw a similar map using the data for "mouth," as shown in Figure 8, to verify the similar patterns of word groups that have wide areas of distribution.

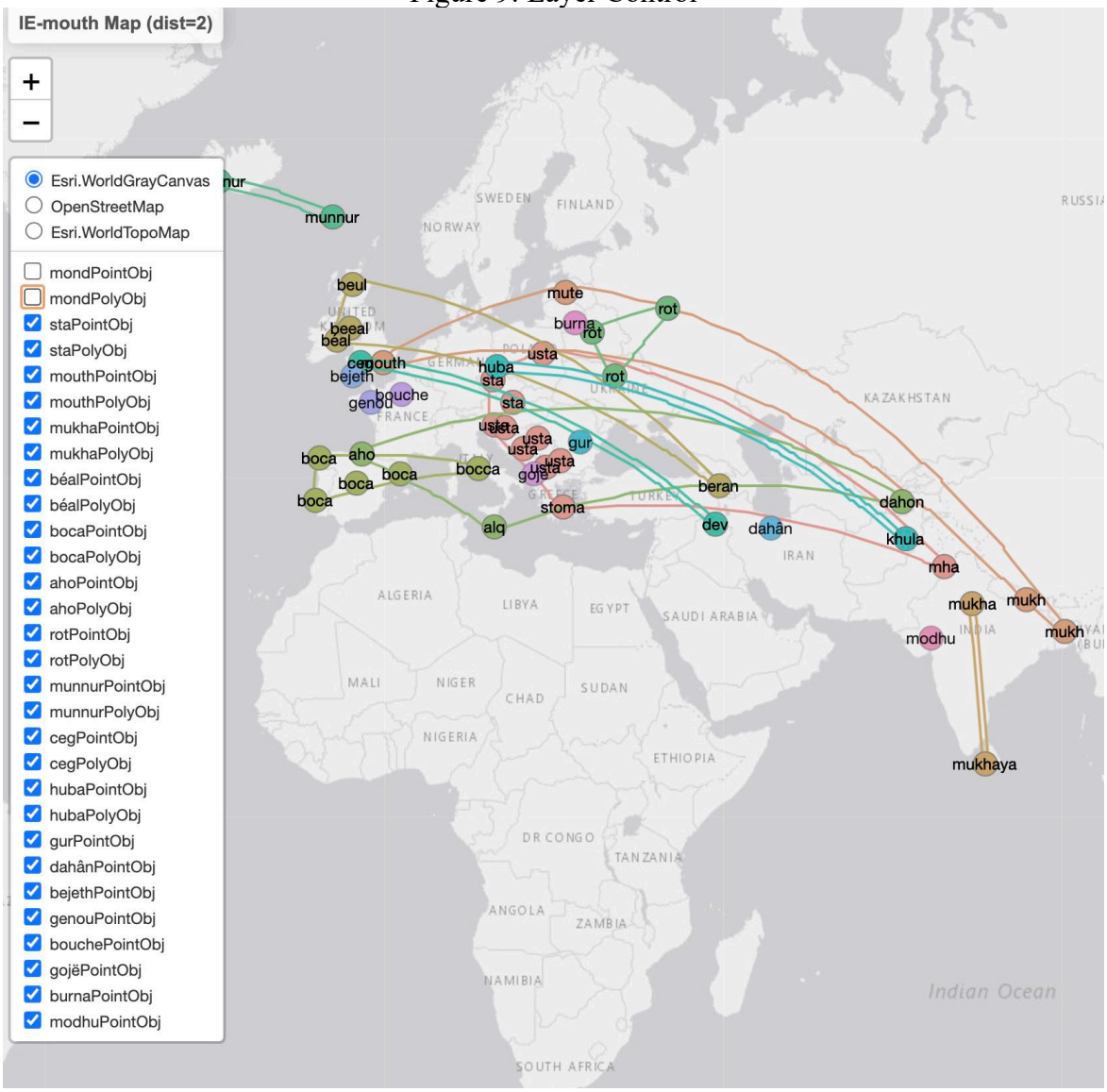
Figure 8: “Mouth” Map



Zooming, Scaling, and Layer Control

When displaying maps in the interactive mode of the *tmap* package, clicking on the icon resembling stacked diagonal sheets in the top-left corner reveals a list of layers. Users can manipulate the map by zooming in and out or adjusting the position using the + and - icons, or through mouse operations.

Figure 9: Layer Control



To focus on the distribution of word groups from East to Europe, we can hide the groups extending into Africa (see Figure 9). This visualization highlights the presence of groups connecting regions from *India to Europe, England*, and the *Scandinavian Peninsula*. Through this process, the relationships within the Indo-European language family can be visually confirmed.

This project adopted a methodology that minimizes manual intervention, relying solely on *ChatGPT* for data collection. The process involved preparing CSV files for data input and evaluating how accurately Suzuki's linguistic map could be reproduced and validated. By following the outlined steps, we successfully generated a *Suzuki Map*, allowing for broad geographic analysis and the identification of long-distance linguistic connections.

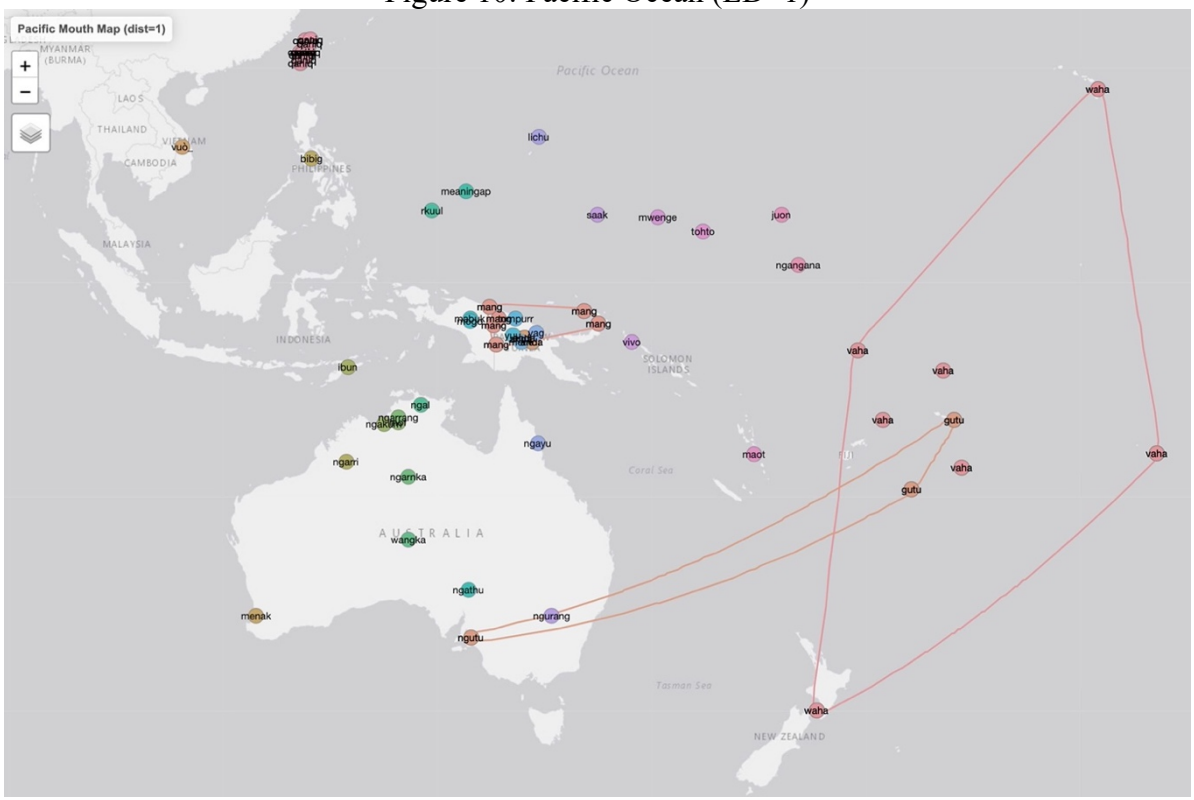
The primary objective of this project was to reconstruct and verify the *Suzuki Map*, and the results successfully support Suzuki's claims while introducing minor refinements. The interactive maps generated in this study can be exported as *HTML files*. These maps can be displayed and manipulated using a web browser, enabling further analysis and exploration.

Languages in the Pacific Ocean

To apply the *Suzuki Map* to languages in the Pacific Ocean, about 100 languages were selected, roughly following the size of the number of speakers. *ChatGPT* found words for *"mouth"* in about 80 languages. The *Edit Distance (ED)* thresholds of 1 and 2 were used to create interactive maps.

Figure 10 shows the *Suzuki Map* with *ED = 1*. It is possible to see the connections between languages in *New Zealand, Tuvalu, Tahiti,* and *Hawaii*. Additionally, an *aboriginal language*, *Kaurna*, spoken in South Australia, is connected to *Samoan* and *Tongan*.

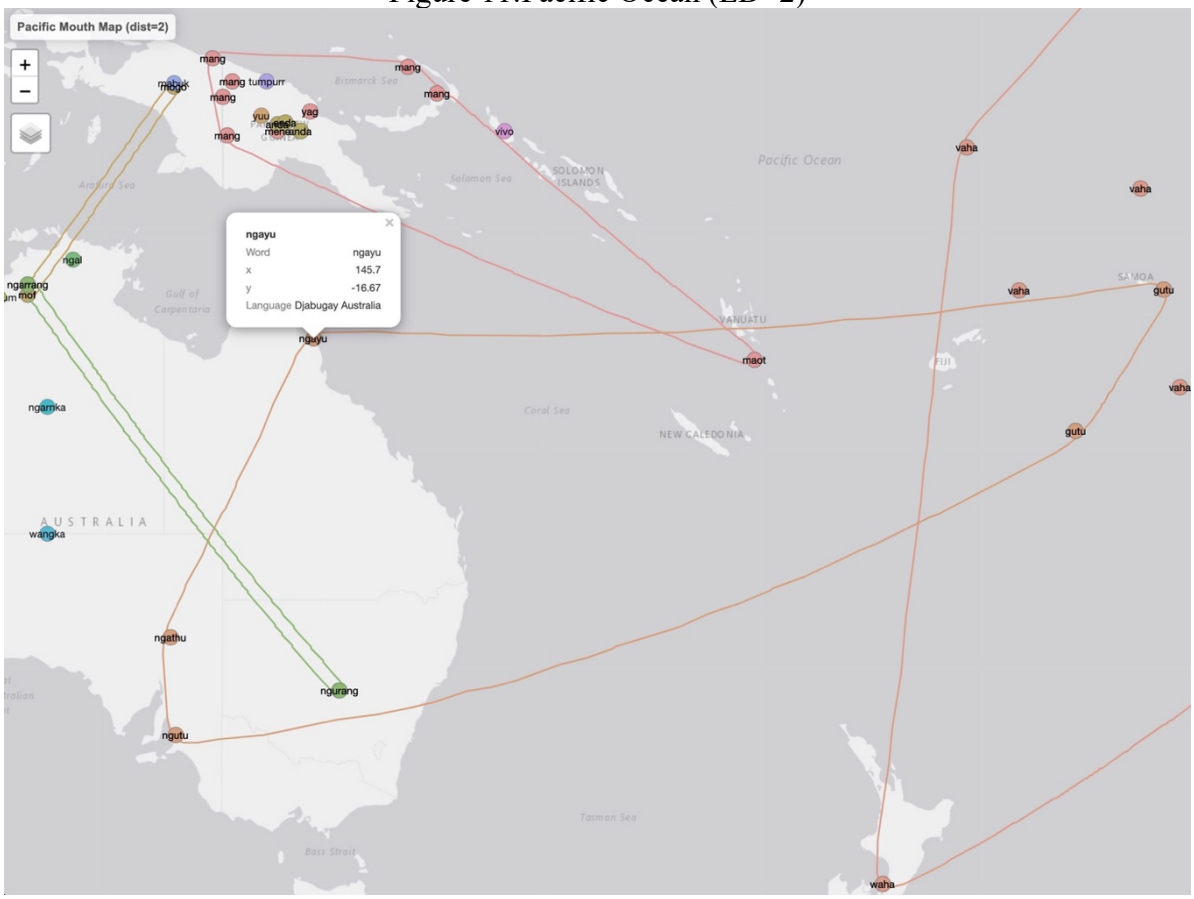
Figure 10: Pacific Ocean (ED=1)



ED=1 does not capture the similarity between *Kaurna's "ngutu"*, *"ngathu"* of the neighboring *Adnyamathanha* language, and *"ngayu"* of the *Djabugay* language. However, if we choose *ED=2*, a larger group can be formed, as shown in Figure 11. Although the results here do not align with Suzuki's original work due to the differing data points, the usefulness of the map is evident.

Note the pop-up information when a data point is clicked in the window. It is possible to add notes in the CSV data for reference while inspecting the interactive map.

Figure 11:Pacific Ocean (ED=2)



Conclusion

This paper summarizes a project that aimed to implement the unique geolinguistic map proposed by *Hideo Suzuki* in the 1980s. Interactive *Suzuki maps* on a computer replicated Suzuki's basic results while significantly enhancing the usability of his map. These improvements allow users to zoom in, zoom out, and compare multiple layers of groups simultaneously. The *SF* and *tmap* packages in the *R* language made it possible to implement the map in a relatively straightforward manner.

Through the implementation, a couple of enhancements were proposed. First, there is a need for an objective similarity measure for grouping. Although the *Edit Distance* measure was used in this report, there is room for improvement in this respect.

Second, the use of *ChatGPT* and other possible online resources can greatly assist in preliminary data collection. While the results may not be fully reliable, having an initial working data set facilitates the initiation of a data collection project.

Acknowledgment

I would like to express my gratitude to those who provide R and various packages as open-source software. In particular, for this project, I am especially grateful for the availability of the user-friendly *sf* and *tmap* packages. This tool is also planned to be publicly released after further validation.

References

Muenchow, R., Lovelace, J., & Nowosad, J. (2019). *Geocomputation with R*. Routledge. https://geocompr.robinlovelace.net/

Suzuki, H. (1987). Ethnic migration and language distribution. *Gekkan Gengo, 17*(7), 24–40. (In Japanese)

Suzuki, H. (1990). *Climate change motivating language change: An approach by linguistic dendrochronology*. NHK Publishing Co. (In Japanese)

Swadesh, M. (1950). Salish internal relationships. *International Journal of American Linguistics, 16*(4), 157–167. https://doi.org/10.1086/464084

Contact email: oda.hiromi@internet.ac.jp

Green Tea Through the Ages: A Comparative Study of Classical Texts From China and Japan

Hoang-Nam Tran, Tokushima University, Japan
Hong-Van Nghiem, Hanoi University, Vietnam
Katya Marinova, Veliko Tarnovo University, Bulgaria
Militsa Mineva, Veliko Tarnovo University, Bulgaria

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
We present a comparative analysis of six influential texts on green tea: "The Classic of Tea", "Grand Treatise on Tea", "Record of Tea", "Record of Drinking Tea for Health", "Cha Pu", and "The Book of Tea". Spanning from the Tang Dynasty in China to the Meiji Period in Japan, these works collectively shaped the cultural, spiritual, and technical dimensions of tea consumption across East Asia. Each text contributes a unique perspective, ranging from Lu Yu's foundational exploration of tea philosophy and culture to Emperor Huizong's aesthetic refinement of tea in the imperial court, and Eisai's promotion of tea as a medicinal and spiritual aid in Zen Buddhism. The framework used for comparison examines philosophy, health benefits, cultural practices, technical brewing methods, and global influence. This analysis highlights how green tea evolved from a simple beverage to a symbol of spirituality, aesthetic refinement, and cultural identity in China and Japan. These texts not only influenced local practices but also helped shape the global appreciation of tea culture.

Keywords: Green Tea History, East Asian Tea Culture, Tea Philosophy and Aesthetics, Global Tea Influence

iafor
The International Academic Forum
www.iafor.org

Introduction

Green tea, deeply rooted in the cultural and historical fabric of East Asia, is more than a beverage - it is a symbol of spirituality, refinement, and identity (Martin, 2011). From the Tang Dynasty in China to the Meiji Period in Japan, its significance has been documented in various texts that offer insights into its evolving role in society (Benn, 2015; Cross, 2009). With the progression of history, there are significant classical texts reflecting the cultural, philosophical, and technical dimensions of green tea consumption. Despite the wealth of information contained within these works, a comprehensive comparative analysis of their contributions to the development of tea culture remains underexplored.

Prior studies have examined individual works, such as Lu Yu's "The Classic of Tea", celebrated as the first definitive monograph on tea (Liu, 2011; Zanini, 2017). Scholars have analyzed its impact on Chinese tea culture, emphasizing its philosophical undertones and technical brewing instructions (Heiss & Heiss, 2007). Similarly, Emperor Huizong's "Grand Treatise on Tea" has been studied for its focus on aesthetic refinement within the imperial court (Jian & Xiaolei, 2023; Litang et al., 2024). In Japan, "The Book of Tea" by Okakura Kakuzō has garnered attention for bridging Eastern and Western perceptions of tea culture (Holca, 2013). However, much of the existing literature is fragmented, often limited to single texts or regional analyses, leaving gaps in understanding the interplay among these works and their collective influence on the evolution of tea culture.

The current body of research lacks a holistic framework that compares these foundational texts across key dimensions such as philosophy, health benefits, cultural practices, technical brewing methods, and global influence. Furthermore, the transnational exchange of ideas and practices between China and Japan, as mediated by these texts, has not been adequately explored. This gap limits our understanding of how tea evolved from a regional cultural practice into a global phenomenon. The absence of a comparative framework has hindered a deeper understanding of how these texts collectively shaped the cultural, spiritual, and technical dimensions of green tea consumption. This lack of integration obscures the broader historical and cultural narrative of green tea's transformation from a medicinal aid to a symbol of aesthetic and spiritual refinement.

The objectives of this study are:

1. To explore the historical evolution of green tea as reflected in these texts, emphasizing its role in health, spirituality, and aesthetics.
2. To investigate the transnational dynamics between Chinese and Japanese tea culture, as shaped by these texts.
3. To assess the lasting impact of these works on the global appreciation of tea culture, drawing connections to contemporary practices.

By addressing these objectives, this study aims to provide an understanding of the cultural, spiritual, and technical evolution of green tea and its enduring legacy in both East Asia and the world.

Methodology

This study employs a qualitative, comparative analysis of six works on green tea: "The Classic of Tea" (Tang Dynasty, China), "Grand Treatise on Tea" (Song Dynasty, China), "Record of Tea" (Ming Dynasty, China), "Kissa Yōjōki " or "Record of Drinking Tea for Health"

(Kamakura Period, Japan), "Cha Pu" (Ming Dynasty, China), and "The Book of Tea" (Meiji Period, Japan). The study follows a multidisciplinary approach, integrating historical, cultural, and literary analysis. A thematic comparative framework is used to evaluate the texts against seven key dimensions: Philosophy/Spirituality, Health/Medicinal Focus, Cultural Practices, Practical/Technical Focus, Popularity, Translations, and Legacy. Primary data for this study comprises reliable translations of the original texts of the six selected works. Secondary data includes scholarly articles, books, and historical analyses that provide context and interpretation of these texts. Sources were gathered from academic databases, libraries, and archives specializing in East Asian cultural and historical studies.

We employ thematic content analysis to identify recurring motifs, contributions, and cross-cultural influences within the selected texts. Textual analysis involves close reading of the texts to extract relevant themes, terminologies, and narratives. For instance, "The Classic of Tea" is analyzed for its foundational role in tea philosophy, while "The Book of Tea" is examined for its portrayal of tea as a bridge between Eastern and Western cultures. Comparative analysis cross-references the identified themes across texts to highlight similarities, differences, and chronological developments; for example, the study compares the technical brewing methods in "The Classic of Tea" and "Cha Pu" to trace advancements over time. The final stage, contextualization, situates the findings within their historical and cultural contexts, with particular emphasis on the transnational dynamics between China and Japan and their influence on global tea culture.

Results

Table 1 compares key attributes of six classical texts related to green tea literature, each contributing to the cultural, philosophical, and technical understanding of tea in their respective historical contexts. These texts, written by influential figures from various periods in Chinese and Japanese history, not only address the cultivation, preparation, and appreciation of tea, but also weave tea into broader social, spiritual, and intellectual discussions. From "The Classic of Tea" during the Tang Dynasty, which laid the foundation for tea culture, to "The Book of Tea" in the Meiji period, which helped introduce Eastern tea philosophy to the West, these works collectively represent the evolution of tea's significance across different dynasties, regions, and cultural frameworks. The table below provides an overview of the authors, historical contexts, and publication details of these essential texts.

Table 1: Comparison for Key Attributes of Classical Green Tea Literature

Attribute	*The Classic of Tea*	*Grand Treatise on Tea*	*Record of Tea*	*Kissa Yōjōki*	*Cha Pu*	*The Book of Tea*
Author	Lu Yu	Emperor Huizong of Song	Cai Xiang	Eisai	Zhu Quan	Okakura Kakuzo
Year of Publication	8th Century	1107–1125	11th Century	1211	1440	1906
Historical Context	Tang Dynasty, cultural flourishing	Song Dynasty, imperial refinement	Song Dynasty, aesthetic focus	Kamakura Period, Zen influence	Ming Dynasty, loose-leaf tea rise	Meiji Period, Westernization
Number of Pages	~50	~50	~20–30	~25	~30–40	~160

Original Language	Chinese	Chinese	Chinese	Japanese	Chinese	English
Place of Publication	China	China	China	Japan	China	Japan
Editions	Multiple versions English, Japanese, Korean	Several historical editions Limited translations	Several editions Few translations	Many editions English, Chinese	Few editions Limited translations	Many editions Multiple languages

To better understand the contributions of each author to the literature and culture of green tea, it is important to compare their active years, occupations, positions, influence, and other relevant aspects of their lives and work. Table 2 shows a structured comparative framework for the authors of "The Classic of Tea", "Grand Treatise on Tea", "Record of Tea", "Kissa Yōjōki", "Cha Pu", and "The Book of Tea". Each of these authors played a unique role in shaping the cultural and literary heritage of green tea, from Lu Yu's establishment of tea as a philosophical pursuit to Okakura Kakuzo's global introduction of Japanese tea culture. Emperor Huizong's contribution focused on elevating tea to an imperial art form, while Eisai and Zhu Quan helped formalize tea practices in their respective countries. Cai Xiang contributed to the aesthetic appreciation of tea, making it a sensory experience as well as a social one. By comparing their active years, occupations, influence, and legacy, we gain a deeper understanding of how green tea evolved into a cultural symbol and a philosophical practice over time.

Table 2: Comparison for Authors of Classical Green Tea Literature

Attribute	*Lu Yu*	*Emperor Huizong*	*Cai Xiang*	*Eisai*	*Zhu Quan*	*Okakura Kakuzo*
Active years (CE)	733–804	1100–1126	1012–1067	1141–1215	1378–1448	1862–1913
Occupation	Scholar, tea master	Emperor, artist, tea connoisseur	Scholar, calligrapher	Zen Buddhist monk	Prince, scholar	Scholar, cultural ambassador
Position	Respected scholar and monk	Emperor of Northern Song Dynasty	Governor, scholar	Zen teacher, monk	Prince of Ning, scholar	Art historian, curator
Influence	Foundational figure in tea culture	Aesthetic refinement of tea at the imperial court	Advanced tea aesthetics	Introduced tea as a health and spiritual practice to Japan	Formalized loose-leaf tea brewing	Bridged Eastern and Western philosophies using tea as a metaphor
Legacy	Considered the "Patron Saint of Tea"; widely celebrated in tea culture	Elevated tea as an art, known for whisked tea competitions	Key figure in tea aesthetics; less known globally	Pioneered the health benefits of tea in Japan; foundational to Zen tea practices	Contributed to technical brewing practices	Global impact on the understanding of Zen and tea culture

Table 3 provides a comparative overview of key classical texts on tea culture, highlighting their philosophical, medicinal, cultural, and technical contributions. These works, ranging from "The Classic of Tea" by Lu Yu to "The Book of Tea" by Okakura Kakuzo, reflect the diverse roles that tea has played in shaping cultural identities, health practices, and intellectual

traditions across China and Japan. Each text offers unique insights into tea's spiritual significance, health benefits, and its integration into daily life, revealing the evolution of tea culture through the ages. The table below outlines the attributes of these six works, offering a clear comparison of their core themes, popularity, translations, and lasting legacy.

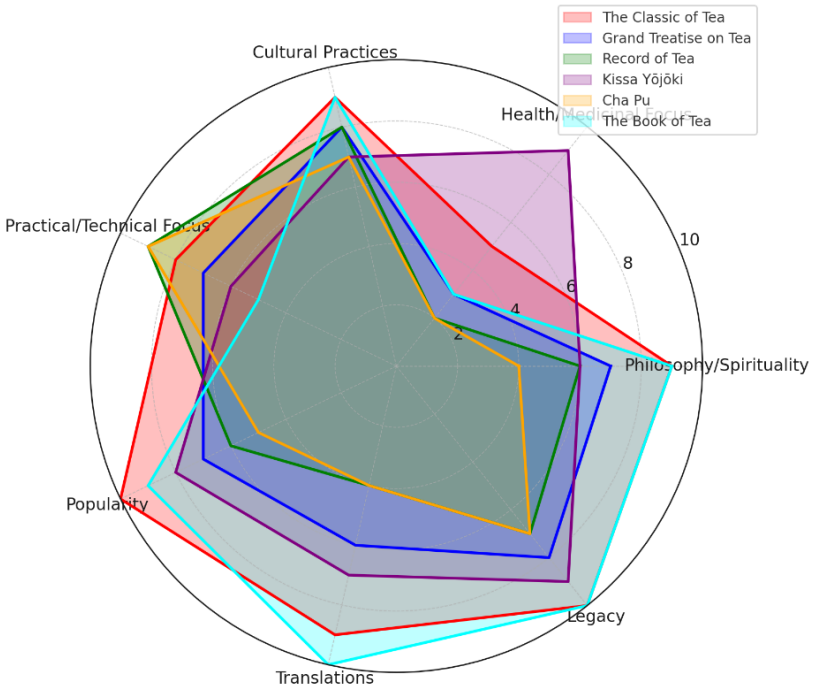
Table 3: Comparison of Key Aspects in Classical Green Tea Literature

Attribute	*The Classic of Tea*	*Grand Treatise on Tea*	*Record of Tea*	*Kissa Yōjōki*	*Cha Pu*	*The Book of Tea*
Philosophy/Spirituality	Focus on the spiritual and ritualistic aspects of tea; tea as a way of life.	Emphasizes the philosophical and intellectual importance of tea.	Focus on tea as a symbol of personal cultivation.	Tea drinking as a way to maintain health, connecting the physical and spiritual.	Philosophical aspects of tea in harmony with nature.	Tea as an aesthetic experience, linking art, life, and spirituality.
Health/Medicinal Focus	Tea's health benefits, particularly its digestive and revitalizing properties.	Discusses tea's health benefits in a broader context.	Tea's medicinal properties, including its role in promoting wellness.	Tea as an important part of health and longevity, with specific remedies.	Emphasizes health benefits, especially in maintaining balance and vitality.	Minimal focus on medicinal benefits, but references health as part of tea culture.
Cultural Practices	Detailed description of tea rituals, cultivation, and preparation techniques.	Describes tea as central to Chinese culture and intellectual life.	Tea cultivation, preparation, and drinking methods as part of cultural practices.	Tea drinking as a key aspect of Japanese culture and tradition.	Focuses on the cultural practices of tea appreciation and ceremonies.	Tea as part of Japanese cultural identity and aesthetic experience.
Practical/Technical Focus	Comprehensive guide on tea cultivation, preparation, and types of tea.	Practical knowledge of tea processing, varieties, and methods.	Practical aspects of tea cultivation, harvesting, and preparation.	Specific instructions for brewing and preparing tea for health benefits.	Focuses on the technical aspects of tea brewing and tasting.	Technical focus on tea preparation and its role in daily life.
Popularity	One of the most influential early texts on tea culture in China.	Highly influential in tea culture, especially in the Tang and Song Dynasties.	Popular in Chinese tea culture, contributing to the standardization of tea practices.	A classic in Japan, widely regarded as a fundamental text for tea drinkers.	An important text in Chinese tea culture, particularly for its technical insights.	Highly influential in the West, introducing Eastern tea philosophy and

Attribute	*The Classic of Tea*	*Grand Treatise on Tea*	*Record of Tea*	*Kissa Yōjōki*	*Cha Pu*	*The Book of Tea*
						aesthetics.
Translations	Translated into several languages, but remains primarily studied in its original Chinese.	Translations are less common but some interpretations are available.	Limited translations, mostly in Chinese-speaking regions.	Translated into English and other languages, especially in tea culture contexts.	Some translations available, often referenced in tea scholarly work.	Widely translated and popularized in the West, especially in the 20th century.
Legacy	Foundational text for tea culture, influencing Chinese tea practices for centuries.	Deeply influenced the intellectual tea discourse in China and beyond.	Significant in the historical development of tea culture, especially in the Ming dynasty.	A key text in Japanese tea culture, forming the basis for the Japanese tea ceremony.	Important for its technical contributions to tea preparation and classification.	A foundational text in the development of Eastern aesthetics in the West.

Figure 1 shows the comparison of six classical texts based on relative focus of each aspect: Philosophy/Spirituality, Health/Medicinal Focus, Cultural Practices, Practical/Technical Focus, Popularity, Translations, and Legacy. Each line represents a specific text, highlighting the differences and similarities in emphasis on these dimensions. The figure shows unique contributions of each text to the culture of green tea. "The Classic of Tea" scores highly on philosophy and legacy, "Kissa Yōjōki" stands out for its focus on health benefits, and "The Book of Tea" has strong influence in philosophy, translations, and popularity, especially in bridging East and West.

Figure 1: Comparative Chart of Classical Green Tea Literature



Discussion

The study of these classical texts provides valuable insights into the global influence of tea, highlighting how it transcended regional boundaries to become a shared cultural practice with profound philosophical, social, and aesthetic significance. The foundational role of *"The Classic of Tea"* in shaping Chinese tea culture is clear, but it is also evident that tea culture in Japan, as detailed in *"Kissa Yōjōki"* and *"The Book of Tea"*, has had a significant influence on the development of tea rituals in the West. *"The Book of Tea"* by Okakura Kakuzo, in particular, played a crucial role in introducing the Eastern philosophy of tea to Western audiences, making it an important text in the cross-cultural exchange between East and West during the Meiji period. In the context of education, the philosophical dimensions of these texts provide valuable lessons in mindfulness, aesthetics, and the intersection of nature, art, and daily life. Incorporating the teachings of these texts into educational curricula could foster a deeper appreciation for the historical and cultural contexts of global traditions. Moreover, these works offer important ethical and spiritual lessons, emphasizing the significance of simplicity, balance, and harmony in both personal development and societal practices (Eto et al., 2015; Park & Cho, 2008).

There are avenues for future research. A deeper examination of how each text influenced tea culture in specific regions (e.g., how *"The Book of Tea"* influenced Western perceptions of tea compared to *"Kissa Yōjōki"*'s impact in Japan) (Pitelka, 2013) could provide more nuanced insights into the global diffusion of tea culture. Furthermore, a more thorough analysis of the intertextual connections between these works, including how later texts might have been influenced by earlier ones, would enrich our understanding of tea as a tradition. Additionally, there is potential to explore the relationship between tea and social class, particularly in imperial and monastic settings. How did tea rituals reflect and reinforce social hierarchies, and to what extent did tea become a form of cultural capital? Investigating tea's role in the development of social and political identity, especially during the Ming and Song Dynasties (Jiang, 2023), could reveal more about its significance. Finally, the impact of globalization and

the modern commercialization of tea presents an intriguing area for future research (Pfragner, n.d.). Understanding how modern tea culture compares to its historical roots could offer valuable insights into the evolution of cultural traditions in a globalized world.

There are several limitations to be noted. First, the scope of the texts analyzed was confined to six key works. A broader selection of texts might have led to a more comprehensive understanding of tea's cultural significance worldwide. Another limitation is the reliance on existing translations and interpretations of these classical works. Given the intricacies of classical Chinese and Japanese, many translations are subject to the biases (Wu, 2024). Additionally, the study focused primarily on the philosophical, cultural, and technical aspects of the texts. Future studies could integrate more dimensions to provide a more holistic view of tea culture's evolution.

Conclusion

In conclusion, this study contributes to the understanding of tea culture's historical and philosophical depth. By comparing key classical texts, we gain a richer perspective on tea's role not only as a beverage but as a symbol of art, culture, health, and spirituality. These works continue to influence modern tea practices and offer valuable lessons for contemporary society in the realms of cultural exchange, mindfulness, and education.

References

Benn, J. A. (2015). *Tea in China: A religious and cultural history*. University of Hawaii Press.

Cross, T. (2009). *The ideologies of Japanese tea: Subjectivity, transience and national identity*. Global Oriental.

Eto, H., Dey, N., Liu, I.-C., Mahujchariyawong, P., & Roy, P. (2015). Comprehensive Study of Tea Culture and Its Possible Contribution to Creativity Education in Locals. *International Journal of Research in Sociology and Anthropology (IJRSA)*, *1*(1), 54–64.

Heiss, M. Lou, & Heiss, R. J. (2007). *The story of tea: a cultural history and drinking guide*. Ten Speed Press.

Holca, I. (2013). Around the world with a book: Okakura Kakuzo's The book of the tea and its transformations. *Analele Universitatii Crestine Dimitrie Cantemir, Seria Stiintele Limbii, Literaturii Si Didactica Predarii*, *1*, 85–103.

Jian, S., & Xiaolei, Z. (2023). The Splendor of Verdure: Tea and the East Asian World of the Song and Yuan Dynasties. *Social Sciences in China*, *44*(2), 152–171.

Jiang, H. (2023). Tea as Nature, Tea as Power in Early Modern China: Tea and the Literati in the Ming Dynasty. *Asian Culture and History*, *15*(1), 1. https://doi.org/10.5539/ach.v15n1p1

Litang, L., Yuling, F., & Minrui, L. (2024). The Imperial Tea Culture of the Song Dynasty. *Frontiers of History in China*, *19*(3).

Liu, J. C. Y. (2011). Between classical and popular: the book of tea and the popularization of tea-drinking culture in the tang China. *The Journal of Popular Culture*, *44*(1), 114–133.

Martin, L. C. (2011). *Tea: the drink that changed the world*. Tuttle Publishing.

Park, C.-K., & Cho, H.-S. (2008). The effect of tea etiquette education on emotional intelligence of girls in high school. *Journal of the Korean Home Economics Association*, *46*(6), 21–32.

Pfragner, D. (n.d.). Japanese Green Tea as an East Asian Example of Globalization. *SJASSTUDENT*, 1.

Pitelka, M. (2013). *Japanese Tea culture: art, history and practice*. Routledge.

Wu, J. (2024). Transliteration in the Translation of "The Classic of Tea": Problems and Solutions. *International Journal of Education and Humanities*, *15*(3), 197–202. https://doi.org/10.54097/b96qkm51

Zanini, L. (2017). Chinese Writings on Tea: Classifications and Compilations. *Ming Qing Yanjiu*, *21*(1), 44–57.

Contact email: tran@tokushima-u.ac.jp

The Application of Gamification in Economics Classrooms: Implications for Initial Teacher Education Curricula

Beatrice Ngulube, Tshwane University of Technology, South Africa

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Today's learning environment has become so digitalised that innovative, engaging and creative pedagogical strategies are needed to make learning fun and enjoyable. Research has shown that gamification as a teaching method can be utilised to enhance participation, attention, performance and learner motivation in various subjects and disciplines. Therefore, it is imperative for Economics pre-service teachers to be equipped with suitable active teaching and learning strategies based on digital games to attract the attention of the diverse millennium learners. To understand the importance of gamification as an effective teaching strategy a qualitative study was carried out to review 30 published research on gamification using a systematic literature review. This was complemented with focus group interviews where twenty final-year students were interviewed in four groups of five each. The study found that gamification is a powerful teaching strategy that reinforces motivation and develops learners' creative problem-solving skills. Gamification is very versatile since it can be used online as well as face-to-face learning. Research of this nature is crucial because learners need to learn in a fun, creative and challenging way. It is recommended that teacher education and other education institutions should equip educators with interactive digital teaching strategies which engage, motivate and enhance learner performance.

Keywords: Gamification, Learning Environment, Curriculum, Initial Teacher Education

iafor
The International Academic Forum
www.iafor.org

Introduction

Research has proved that essential skills such as attention, creativity, critical thinking, self-managed learning, adaptability, problem-solving, and computer literacy are promoted using games in the learning process (Derakhshan & Khatir, 2015; Gozcu & Caganaga, 2016; Ho et al., 2020; Lee, 2023). Several researchers have also agreed on the fact that games that are driven by educational goals are innovative teaching-learning strategies that have been shown to be effective in improving student learning outcomes (Day-Black, 2015). Today's learning environment has become so digitalised that innovative, engaging and creative pedagogical strategies are needed to teach effectively and arouse learners' imagination (Pimentel et al., 2020). Therefore, it is imperative for Initial Teacher Education (ITE) to equip student teachers with active digital teaching strategies. The use of digital teaching games is essential because games increase learner engagement and make learning fun (Andic et al., 2018). Additionally, gamification reinforces extrinsic and intrinsic motivation, which indicates that it is a powerful teaching strategy (Chans & Portuguez Castro, 2021; Manzano-León et al., 2022; Suh et al., 2018). Several researchers have demonstrated that the inclusion of joy and fun in classrooms using learning games enhances learner creativity, decision-making skills, and performance (Lee, 2023).

Furthermore, the strategy is suitable for diverse classes, whether teaching or assessing online or face-to-face (Chans & Portuguez Castro, 2021; Rincon-Flores et al., 2022). Earlier research conducted by Day-Black (2015) reported that gamification is an innovative, engaging, and efficient strategy to deliver learning material in an engaging and interactive manner (Nieto-Escamez & Roldán-Tapia, 2021). Initial Teacher Education should be intentional in reinforcing the use of learning games in the learning environment to enhance learner participation and motivation. Student engagement is really a matter of concern; hence, earlier theories were developed around learner-centredness and social constructivism (Sawyer, 2006). The education environment cannot afford not to adopt a gamification strategy, which has been shown to be effective in improving student learning outcomes (Day-Black, 2015). The proposal is that teacher education should equip preservice teachers with knowledge of gamification.

The learning environment is becoming digital or incorporating digital technologies in all their forms and shapes. This is what Pimentel, Nunes, and Sales Júnior (2020) call a dialectic between society and technologies in the sense that this relationship promotes changes in all contexts. The use of technology should, in the same way, embrace digital techniques towards the production of innovation, promoting different attitudes and options or creating new forms of communication and interaction in classrooms using teaching strategies. Teaching strategies should go beyond the use of PowerPoint and videos and embrace the use of games to make learning more fun and enjoyable (Mortensen & Nicholson, 2015; Pimentel et al., 2020; Roman et al., 2024). Pimentel and colleagues (2020) further explain that the use of games provides intense interaction, multiplying the dissemination of information and the creation of communities of practice in digital social networks. The problem is that the use of games is not fully utilised in the learning environment though research has proved that games improve student participation and performance (Roman et al., 2024).

In their research, Andic, Kadic, Grujic, and Malidžan (2018) and Zourmpakis, Kalogiannakis, and Papadakis (2023) found that most learners enjoy learning that is associated with educational games because games are fun, engaging, entertaining, challenging, stimulate the brain and increase class participation. Another benefit of games in the learning environment is that they release stress and grant supplementary motivation (Andic et al., 2018; Zourmpakis et

al., 2023). More importantly, educational games can make topics which are boring to teach or learn interesting by stimulating learners' cognitive abilities. This is supported by Aibar-Almazán and colleagues (2024), who said that deeper immersion in the game, produces benefits by stimulating various cognitive aspects and enhancing complex skills. Games benefit the teacher and the learners; this is what should happen in the learning environment to achieve desirable outcomes. Games can improve key skills such as attention, creativity, and critical thinking, especially when longer sessions are used. Therefore, it is imperative that educators make use of the influence and continuous progress of technology by developing innovative learning strategies that cater for the requirements and interests of contemporary learners (Zourmpakis et al., 2023).

The use of games can improve several learning skills, which include attention, creativity, critical thinking, self-managed learning, adaptability, problem-solving, and computer literacy (Aibar-Almazán et al., 2024). Furthermore, the utilisation of games enhances learning by stimulating various cognitive aspects and enhancing complex soft skills as well as developing skills such as interaction, cooperation and competition (Aibar-Almazán et al., 2024; Martínez, 2017). This new teaching strategy can improve the dynamics of the learning process, and its benefits in the educational environment have been widely documented (Dahalan et al., 2023).

The current generation of learners needs pedagogical strategies that are interactive and give them a leading role in the learning environment. Hence in recent years, there has been a notable increase in the utilisation of digital games across various educational domains (Zourmpakis et al., 2023). Gamification brings more commitment to learning and improves learner performance (Chen & Liang, 2022). As an example, games like "Kahoot" have become one of the most popular entertainment-based digital learning tools in recent years, with the advantages of being free, easy to use, and effective in terms of improving classroom dynamics (Aibar-Almazán et al., 2024). Games also foster positive relationships among the various groups of students and stimulate the students' intrinsic motivation to learn (Rodríguez-Aflecht et al., 2017) quoted in Aibar-Almazán and colleagues (2024). Chacon and Janssen (2020) in their research found that games promote the development of more complex and sophisticated skills and that prolonged use also allows for a better understanding of the subject knowledge. Additionally, games improve concentration, mental resilience, and absorption of information, which are all important aspects of paying attention to details and increasing cognitive performance (Sotos-Martinez et al., 2023). The improvement in critical thinking skills may be due to the need to confront challenges presented in real-time through the analysis of information, making quick decisions, and evaluating options presented in games (Jin & Ji, 2021).

However, to make the use of games profitable, the teacher needs to state clear goals and objectives, feedback should be prompt, the teacher must ensure cooperation and learner attention and participation should be maintained (Andic et al., 2018). Research has also found that self-made games are better than ready-made games, as they inspire creativity in teaching (Andic et al., 2018). Therefore, teachers should design their own games relevant to the outcome they need to achieve and align them to the content being taught. More importantly, the needs of the learners, cognitive abilities and time management should be taken into consideration when designing these games.

Methodology

This research was carried out with the main purpose of understanding the application of gamification in economics classrooms. Preservice economics student teachers' views regarding the use of games in the learning environment were examined. A qualitative study was carried out to review 30 published research papers on gamification using a systematic literature review. The systematic literature review intends to bring evidence together to answer a pre-defined research question (Pollock & Berge, 2018). A systematic literature review is mainly based on mining essential data useful for answering the outlined research questions from the identified publications (Kitchenham, 2004). Essential phases in systematic reviews include the devising of the research question, the identification of relevant research, data extraction, assessment of the risk of bias, data synthesis, summary and interpretation of the findings (Pollock & Berge, 2018). A rigorous qualitative systematic review can also discover new knowledge, often helping illuminate 'why' and can help a deeper understanding of the phenomenon under investigation (Elliott et al., 2017). The utilisation of a systematic review in this study was prompted by an interest in gamification and a wish to gain knowledge on how preservice teachers perceive the use of games in the learning space and make Initial Teacher Education recommendations. A systematic literature review was complemented with focus group interviews where twenty final-year students were interviewed in four groups of five each.

For ethical reasons, pseudonyms or codenames were used to keep the participants anonymous. Pseudonyms are often used to camouflage participants mentioned in interviews and other textual data collected for research purposes (Heaton, 2022). Participant confidentiality should be adhered to by researchers as an ethical requirement of research (Creswell, 2013; Roberts, 2015). In this research, participants were given letters and numbers as pseudonyms. For instance, pseudonyms like S1 refer to Student Number 1.

Data Analysis

Data analysis includes procedures for analysing data and techniques for interpreting the results of such procedures.

The following four (4) questions were asked to collect data from the participants.

1. What is gamification?
2. Explain how you used games in your lessons during teaching practice. If you did not, explain why.
3. List types of games teachers can use to grab learner attention, increase participation and increase learner performance.
4. Is gamification essential in the learning environment? Explain.

Question 1: Student teachers were asked to give the meaning of gamification.

Researchers view the use of games in the learning space as a didactic teaching strategy aiming at developing students' professional skills, increasing the sense of community, improving how content is learned, and increasing engagement (Chans & Portuguez Castro, 2021). Preservice teachers who participated in this research were asked to define the term gamification. Different views were given.

Participant S7 gave the following response: "These are games used to grab the attention of learners and encourage participation."

Participant S 9 commented: “It is the process or practice of giving learners play time using learning games when teaching is in progress.”

Participant S 17 added: “It is the use of games and playing when focusing on a specific thing, for example, teaching in class.”

Most of the student teachers have a general understanding of what gamification is all about. This is evidenced by the responses they gave. A sample of the above definitions from the participants indicated that the preservice teachers know about gamification as a teaching strategy. The following section represents responses to the second question.

Question 2: Student teachers were asked how they used games in their lessons during teaching practice.

Several responses were given. The response given by S2 drew the attention of the researcher:

> No, I did not use any games in my class as learners would think that each lesson I would have will turn into a comedy show. I don’t want learners to disrespect me and play on top of my head. My lessons were plain, simple and straightforward. The National Curriculum and Assessment Policy Statement (CAPS) document does not say anything about using games in class.

There are other student teachers who gave responses which are like this. This is worrisome because preservice are supposed to be eager to try new and innovative teaching strategies. A 21st-century teacher should be more than willing to work out new teaching strategies. Gamification is an effective teaching strategy for enhancing creativity which should be tried out by young teachers to arouse learner interest. It is sad if young teachers who are technological natives focus on content coverage and do not pay attention to learners’ interests, participation and motivation.

S7 responded as follows: “No, the school did not have resources; most of the classrooms are dilapidated. I was given a container with holes inside.”

S17 added: “No, I did not use games in my lessons because the school has no resources to cater for games. I also feel like I have not yet been properly trained to be able to create my own games to use in a lesson.”

The responses given by participants S7 and S17 are some of the barriers which can hamper teachers from trying new methods, especially methods which require the use of technology in the Global South countries. S17 raised a fundamental factor regarding the lack of training. Teacher education should equip preservice teachers with the necessary skills needed to teach with educational games.

Question 3: Student teachers were asked to name types of games used in the classroom to grab learner attention, promote participation and increase learner performance.

Educational games which student teachers listed included puzzles, quizzes, word searches, flashcards, mystery boxes, five-minute frenzy letter hopscotch, scavenger hunts, map challenges, video games, simulation games and role play. It is encouraging that students have a sound knowledge of the games which they can use in class to make learning and teaching fun

and enjoyable. Andic et al. (2018), who conducted similar research, found that educators use educational games like rebuses, anagrams, crosswords, word associations, memory games, quizzes and "Break the Wall". The games listed by participants agree largely with the descriptions in the literature. Some of the responses to Question 4 are listed below.

Question 4: Students were asked questions about the importance of gamification.

S3: "Yes, it makes learning enjoyable, and learners will be relaxed, not stressing about being pointed at when they ask questions because some of them are scared to answer questions in the class."

S13: "Yes, because we have different learners who get to learn in different ways, some lose interest easily, so [we] can help those kinds of learners to keep them entertained in the classroom."

Most of the student teachers are aware of the importance of gamification in the learning environment. S3 and S13 are among the student teachers who gave precise importance to gamification in the classroom. Initial Teacher Education can strengthen this by incorporating gamification in their programs and empowering student teachers with relevant skills.

Results and Discussions

This section presents the main findings and discussions of the study. Student teachers' views on the application of gamification in the economics classroom were also explored. Data analysis clearly indicates that most of the interviewed student teachers know what gamification is all about but are not yet comfortable with implementing the teaching strategy. The analysis shows that student teachers are willing to integrate games into their teaching if they can be trained on how to employ games in their teaching. The need for training is supported by several researchers who alluded that gamification is both a promising but a challenging tool for teachers willing to implement technological game-based innovations in their courses (Sánchez-Mena et al., 2016). Sánchez-Mena and colleagues (2016) go on to say that student teachers might face difficulties when choosing and designing materials for their courses because of their lack of experience. This is supported by Guerrero Puerta (2024), who said that preservice teachers need comprehensive training in gamification. There is a huge gap in initial teacher education programmes, highlighting that future teachers need to be empowered in the use of gamification as an innovative pedagogical strategy. Some participants, such as S17, were right when they pointed out that they needed to be trained to embrace gamification easily as a teaching strategy. This might be the major contributing factor to why students did not teach using games. Furthermore, educators should be given tools to create their own games suitable for the specific content they will be delivering (Andic et al., 2018). Initial Teacher Education is mandated to empower student teachers with gamification skills. The use of games can improve several learning skills, which include attention, creativity, critical thinking, self-managed learning, adaptability, problem-solving, and computer literacy (Aibar-Almazán et al., 2024). The current generation of learners needs pedagogical strategies that are interactive and that give them a leading role in the learning environment. Therefore, class activities should be incorporated with learning games.

Most of the interviewees agreed to the fact that gamification is an important teaching strategy. Although the sample size was composed of only 20 teachers and 30 articles, it gave significant insights for Initial Teacher Education to train student teachers in the use of gamification. The importance of gamification and the need for teachers to adapt the strategy to cater for diverse

learners cannot be underestimated. This viewpoint agrees with S13, who explained that gamification is essential because it accommodates learners with different learning styles.

Conclusion

Trainee teachers need adequate training so that they will be able to teach with educational games effectively. Initial Teacher Education (ITE) should integrate gamification into the curricula, and pedagogical activities should include teaching games. Researchers emphasised that games stimulate learner motivation, foster critical thinking, problem-solving skills, imagination, and interest, enhance self-esteem and performance, improve retention of economic concepts and release stress. It is recommended that goal-directed educational games should be employed in the teaching and learning environment because several researchers agree that games provide an atmosphere which motivates and enhances learning performance. More importantly all games used in the learning environment should be aligned to the curriculum or content which will be taught. The learner's level of intelligence and cultural background of the learners should be considered.

References

Aibar-Almazán, A., Castellote-Caballero, Y., Carcelén-Fraile, M. D. C., Rivas-Campo, Y., & González-Martín, A. M. (2024). Gamification in the classroom: Kahoot! As a tool for university teaching innovation. *Frontiers in Psychology*, *15*, 1370084. https://doi.org/10.3389/fpsyg.2024.1370084

Andic, B., Kadic, S., Grujicic, R., & Malidžan, D. (2018). A Comparative Analysis of the Attitudes of Primary School Students and Teachers Regarding the Use of Games in Teaching. *IAFOR Journal of Education*, *6*(2), 5–16. https://eric.ed.gov/?id=EJ1181054

Chacon, J. A., & Janssen, H. (2020). Teaching critical thinking and problem-solving skills to healthcare professionals. *Medical Science Education, 31*, 235–239. https://doi.org/10.1007/s40670-020-01128-3

Chans, G. M., & Portuguez Castro, M. (2021). Gamification as a strategy to increase motivation and engagement in higher education chemistry students. *Computers*, *10*(10), 132. https://doi.org/10.3390/computers10100132

Chen, J., & Liang, M. (2022). Play hard, study hard? The influence of gamification on students' study engagement. *Frontiers in Psychology, 13*, 994700. https://doi.org/10.3389/fpsyg.2022.994700

Creswell, J. W. (2013). *Qualitative inquiry and research design: choosing among five approaches*. 3rd edition. Sage.

Dahalan, F., Alias, N., & Shaharom, M. S. N. (2023). Gamification and game-based learning for vocational education and training: a systematic literature review. *Education in Information Technology*, *29*, 1279–1317. https://doi.org/10.1007/s10639-022-11548-w

Day-Black, C. (2015). Gamification: An innovative teaching-learning strategy for the digital nursing students in a community health nursing course. *ABNF Journal*, *26*(4), 1–6.

Derakhshan, A., & Khatir, E. D. (2015). The effects of using games on English vocabulary learning. *Journal of Applied Linguistics and Language Research*, *2*(3), 39–47.

Elliott, J. H., Synnot, A., Turner, T., Simmonds, M., Akl, E. A., McDonald, S., Salanti, G., Meerpohl, J., Maclehose, H., Hilton, J., Tovey, D., Shemilt, I., & Thomas, J. (2017). Living systematic review: 1. Introduction—the why, what, when, and how. *Journal of Clinical Epidemiology*, *91*, 23–30. https://doi.org/10.1016/j.jclinepi.2017.08.010

Gozcu, E., & Caganaga, C. K. (2016). The importance of using games in EFL classrooms. *Cypriot Journal of Educational Sciences*, *11*(3), 126–135. https://eric.ed.gov/?id=EJ1140747

Guerrero Puerta, L. (2024). Exploring if gamification experiences make an impact on pre-service teachers' perceptions of future gamification use: A case report. *Societies*, *14*(1), 11–26. https://doi.org/10.3390/soc14010011

Heaton, J. (2022). "*Pseudonyms are used throughout": A footnote, unpacked. *Qualitative Inquiry*, *28*(1), 123–132. https://doi.org/10.3390/soc14010011

Ho, P. V. P., Thien, N. M., An, N. T. M., & Vy, N. N. H. (2020). The effects of using games on EFL students' speaking performances. *International Journal of English Linguistics*, *10*(1), 183–193. https://doi.org/10.5539/ijel.v10n1p183

Jin, M., & Ji, C. (2021). The correlation of metacognitive ability, self-directed learning ability and critical thinking in nursing students: a cross-sectional study. *Nursing Open 8*, 936–945. https://doi.org/10.1002/nop2.702 https://doi.org/10.1002/nop2.702

Kitchenham, B. (2004). Procedures for performing systematic reviews. *Keele University*, *33*(2004), 1–26.

Lee, K. W. (2023). Effectiveness of gamification and selection of appropriate teaching methods of creativity: Students' perspectives. *Heliyon*, *9*(10), 1–15. https://doi/org/10.1016/j.heliyon.2023.e20420

Manzano-León, A., Aguilar-Parra, J. M., Rodríguez-Moreno, J., & Ortiz-Colón, A. M. (2022). Gamification in initial teacher training to promote inclusive practices: a qualitative study. *International Journal of Environmental Research and Public Health*, *19*(13), 8000. https://doi.org/10.3390/ijerph19138000

Mortensen, C. J., & Nicholson, A. M. (2015). The flipped classroom stimulates greater learning and is a modern 21st-century approach to teaching today's undergraduates. *Journal of Animal Science*, *93*(7), 3722–3731. https://doi.org/10.2527/jas.2015-9087

Nieto-Escamez, F. A., & Roldán-Tapia, M. D. (2021). Gamification as online teaching strategy during COVID-19: A mini-review. *Frontiers in Psychology*, *12*, 648552. https://doi.org/10.3389/fpsyg.2021.648552

Pimentel, F. S. C., Nunes, A. K. F., & Sales Júnior, V. B. D. (2020). Teacher training in digital culture through gamification. *Educar em Revista*, *36*, e76125. https://doi.org/10.1590/0104-4060.76125

Pollock, A., & Berge, E. (2018). How to do a systematic review. *International Journal of Stroke*, *13*(2), 138-156. https://doi.org/10.1177/1747493017743796

Rincon-Flores, E. G., Mena, J., & López-Camacho, E. (2022). Gamification as a teaching method to improve performance and motivation in tertiary education during COVID-19: A research study from Mexico. *Education Sciences*, *12*(1), 49. https://doi.org/10.3390/educsci12010049

Roberts, L. D. (2015). Ethical issues in conducting qualitative research in online communities. *Qualitative Research in Psychology, 12*(3), 314–325. https://doi.org/10.1080/14780887.2015.1008909

Rodríguez-Aflecht, G., Hannula-Sormunen, M., McMullen, J., Jaakkola, T., & Lehtinen, E. (2017). Voluntary vs compulsory playing contexts: Motivational, cognitive, and game experience effects. *Simulation & Gaming*, *48*(1), 36–55. https://doi.org/10.1177/1046878116673679

Roman, C., Delgado, M. Á., & García-Morales, M. (2024). Embracing the efficient learning of complex distillation by enhancing flipped classroom with tech-assisted gamification. *Education for Chemical Engineers*. https://doi.org/10.1016/j.ece.2024.11.001

Sánchez-Mena, A., Queiro-Ameijeiras, C., Galbis-Córdova, A., Martí-Parreño, J., & Álvarez-Jareño, J. A. (2016). Student teachers' intention to use gamification. In *ICERI2016 Proceedings* (pp. 4488-4494). IATED.

Sawyer, R. K. (2006). *The Cambridge handbook of the learning sciences*. Cambridge University Press.

Sotos-Martinez, V. J., Tortosa-Martínez, J., Baena-Morales, S., & Ferriz-Valero, A. (2023). Boosting student's motivation through gamification in physical education. *Behavioral sciences*, *13*(2), 165.

Suh, A., Wagner, C., & Liu, L. (2018). Enhancing user engagement through gamification. *Journal of Computer Information Systems*, *58*(3), 204–213. https://doi.org/10.1080/08874417.2016.1229143

Zourmpakis, A. I., Kalogiannakis, M., & Papadakis, S. (2023). Adaptive gamification in science education: An analysis of the impact of implementation and adapted game elements on students' motivation. *Computers*, *12*(7), 143–163. https://doi.org/10.3390/computers12070143

Contact email: NgulubeB@tut.ac.za

Global Perspectives on Digital Media Education: Cross-Cultural Differences and Influencing Factors

Xiangyu Dong, University of Wales Trinity Saint David, United Kingdom
Ya Gao, University of Wales Trinity Saint David, United Kingdom
Andi Dong, University of Southampton, United Kingdom
Jian Liang, Henan Agricultural University, China
Lu Bai, Henan Vocational Institute of Arts, China

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
In the context of digital development, the importance of digital media education is becoming increasingly prominent, with its evolution exhibiting significant diversity on a global scale. This study aims to explore the differences in digital media education across various countries and regions, focusing on the underlying cultural, social, and technological factors. The research addresses questions through comparative analysis, such as: To what extent is digital media education prevalent in different countries? How do national curricula differ in design? What are the factors that influence these disparities? This study uses literature review and case study methods to examine academic reports, policy documents, and practical case studies from the United States, the United Kingdom, China, and Japan. Cross-cultural comparisons reveal significant differences in curriculum design, educational goals, and the application of technology. The findings show that the level of technological infrastructure, industry demand, cultural preferences, and the extent of policy support are major factors contributing to these variations. By fostering deeper international collaboration and knowledge exchange, the global gap in digital media education can be narrowed. This study provides empirical evidence for future curriculum development and educational policy, helping educators design more adaptive digital media education programs to meet the challenges of globalization.

Keywords: Digital Media Education, Cross-Cultural Differences, Curriculum Development

iafor
The International Academic Forum
www.iafor.org

Introduction

In the 1960s, Marshall McLuhan (1964) introduced his famous theory, "the medium is the message," emphasizing the far-reaching influence of media itself on society and culture. As the twenty-first century dawned, the pace of digital transformation increased substantially, casting digital media education into an ever more critical role on the global stage. The widespread adoption of digital media has not only altered the ways in which information is communicated but also given rise to entirely new cultural and informational ecosystems, thereby profoundly shaping human cognition and thought processes.

Digital media education is a kind of education that integrates knowledge and skills from various disciplines to cultivate innovative talents for the digital media era. It can be divided into two perspectives: broad and narrow. In a broad sense, digital media education refers to educational activities that use digital media technologies and resources to cultivate and improve the knowledge, skills, literacy, and other aspects of the educated (Eshet-Alkalai, 2004). In a narrow sense, it mainly refers to systematic professional education in higher education and vocational education, with digital media technology, digital media art, and related majors at its core (Paul, 2015). The digital media education discussed in this paper is limited to the narrow category, which emphasizes the professional and systematic training system in higher education and vocational education and training.

Despite its global significance, the evolution of digital media education exhibits marked diversity across various countries and regions. This diversity reflects the distinct characteristics of each nation's technological infrastructure, industrial development needs, cultural preferences, and levels of policy support. Under the background of globalization, digital media education nevertheless faces common challenges—such as the rapid iteration of technology, shifting labor market demands, and the transition toward more personalized learning models. Each country's response is shaped by unique local factors.

This study seeks to answer the following questions:

1. What differences exist across countries in the prevalence of digital media education?
2. How do various nations diverge in terms of the objectives, content, and implementation methods of digital media education curricula?
3. Which cultural, social, technological, and policy factors underlie these observed differences?

By exploring these variations and their underlying causes, this research contributes to a deeper understanding of global digital media education, not only contributes to a more comprehensive understanding of the current state of the field but also offers valuable practical insights for developing targeted educational policies and optimizing curriculum design.

Literature Review

Development of Digital Media Education

In the 1990s, with the advent of computer and network technologies, the concept of digital media education began to gain traction across various educational institutions, particularly within higher education and adult learning (Brown & Duguid, 2017). Entering the 21st century, digital media education has increasingly globalised. With continual technological advances—notably the widespread use of mobile devices and immersive technologies such as virtual

reality (VR) and augmented reality (AR)—the scope of digital media education has expanded significantly. It has evolved from being a mere auxiliary tool to becoming an indispensable component of the educational system (Selwyn, 2021). For instance, the Massachusetts Institute of Technology (MIT) introduced its OpenCourseWare initiative in 2001, which extensively utilises digital media technologies to share and disseminate teaching resources. In contrast, in China, the proliferation of digital media education is predominantly driven by policy initiatives, such as the implementation of the "Internet+ Education" strategy.

Despite the evident global trend in the development of digital media education, there remain substantial differences in educational models and technological applications among countries. These differences not only reflect variations in technological infrastructure and the distribution of educational resources, but are also closely linked to each country's cultural background, social structure, and policy environment (Hakkarainen et al., 2004). For example, Western countries generally place a strong emphasis on integrating educational innovation with technology, focusing on cultivating students' digital literacy and critical thinking. Conversely, certain Asian countries tend to prioritise the integration of technology with traditional culture, industrial development, and educational practices.

Understanding the evolution of digital media education across different countries and regions not only reveals its globalisation trend but also provides robust evidence for analysing the cross-cultural differences inherent in the field.

Cross-Cultural Differences in Digital Media Education

In discussing the cross-cultural differences in global digital media education, it is evident that digital media education is influenced not only by technological advancements but also by each country's cultural background, policy guidance, and societal needs.

In the United States, digital media education emerged relatively early, and close collaboration among the government, educational institutions, and private enterprises has enabled its widespread promotion and development (Selwyn, 2021). The American education system places a strong emphasis on cultivating critical thinking, creativity, and technical skills; consequently, digital media courses typically incorporate interdisciplinary content, including technical operation, creative expression, and innovative design. In particular, in fields such as game design, digital art, and virtual reality, curricula are designed to prioritise the development of practical skills. For example, according to the New York University Tisch School of the Arts website, the Interactive Telecommunications Programme (ITP) emphasises interdisciplinary collaboration, whereby students not only learn programming techniques but also engage in artistic creation and project-based practice (New York University Tisch School of the Arts, n.d.).

In contrast, the digital media curriculum in the United Kingdom is designed with a greater focus on interdisciplinary integration, especially in the arts and design domains, where digital media education is closely intertwined with the creative industries. Many UK universities deliver digital media courses that not only impart technical skills but also place significant emphasis on creative content, such as digital art, film production, and multimedia design. Furthermore, by promoting the widespread adoption of digital skills, the UK has gradually achieved a more equitable distribution of educational resources, thereby reducing the digital divide among different social groups (Hakkarainen et al., 2004).

China's digital media education began relatively late; however, in recent years, it has experienced rapid development spurred by policy initiatives such as the "Internet+ Education" strategy (Ma & Li, 2021). Compared with the United States and the United Kingdom, the Chinese education system places greater emphasis on the practical application of technology, with digital media education being closely aligned with industry demands. Many universities offer courses in game design and digital animation production, focusing on enhancing students' technical abilities and vocational skills. Nonetheless, digital media education in China still faces challenges, particularly due to the prevailing influence of an examination-oriented education system.

In Japan, digital media education is relatively mature, particularly in terms of technological application and innovation. Japanese institutions place a strong emphasis on the integration of technology with the humanities; digital media education in Japan not only teaches technical skills but also stresses the importance of fostering creative thinking and artistic expression in the process of creation and design. This is especially apparent in areas such as game design and anime production, where digital media education has become highly aligned with industry needs (Dhiman, 2021).

Research Gap

Although existing literature has explored the development of digital media education and its characteristics in various countries, two major limitations remain. Firstly, the majority of studies limit themselves to case analyses of specific countries or regions, failing to conduct a systematic cross-national comparison. Secondly, there is a lack of detailed analysis and understanding of the differences between the "broad" and "narrow" definitions of digital media education and how they affect different cultures. Therefore, this study will employ a cross-national comparative approach to offer new perspectives and empirical evidence for the theory and practice of global digital media education.

Methods

Research Design

In this study, a combined approach to literature analysis and case studies is adopted to compare and analyse the current status and characteristics of digital media education in the United States, the UK, China, and Japan. The study looks at how similar or different these countries are regarding digital media education and curriculum design. It also seeks to understand why these differences exist by considering cultural background, societal needs, technology development, and government support. To ensure data accuracy, the research focuses on publicly available information regarding curriculum settings, teaching syllabi, and training objectives published on the official websites of higher education institutions. This study strictly adheres to academic ethical principles; all data are sourced from public channels and do not involve personal privacy or sensitive information, and all sources are cited in strict accordance with academic integrity requirements.

Data Collection

Data collection was conducted using databases such as Scopus, Web of Science, and Google Scholar. Keywords such as "digital media education" and "cross-cultural education were employed to retrieve academic articles, relevant books, and policy documents published in

recent years, thereby assembling existing research findings on digital media education in the United States, the United Kingdom, China, and Japan. Priority was given to literature that is closely related to the research topic to ensure the authority and representativeness of the selected sources.

Representative higher education institutions or educational organisations from the four countries were selected as case studies via online searches. Data were gathered from their official websites—including information on course examples, teaching syllabi, curriculum settings, and training objectives. In addition, relevant policy documents published by government or education authorities were consulted to supplement and corroborate the current state of digital media education from a policy perspective.

Data Analysis

During the data analysis process, the collected literature was systematically organised and classified, with particular emphasis on the theoretical background, curriculum design, technological applications, and policy support for digital media education across different countries. Next, a comparison was done to look at the education systems of different countries. This showed both the similarities and differences in how they teach digital media and the reasons behind these approaches. For the case studies, a qualitative analysis method was used to extract information regarding the challenges, success factors, and policy support encountered by each country in implementing digital media education.

Validity and Reliability

To ensure the reliability of the research findings, this study used multiple data sources for cross-validation. The literature review involved an extensive examination of international academic works in the relevant fields, while the case study component analysed specific educational instances to guarantee data diversity and representativeness. Furthermore, by comparing the circumstances across various countries, the validity and applicability of the research conclusions were enhanced.

Findings

The analysis indicates that digital media education on a global scale exhibits cross-cultural differences among various countries, and these differences are profoundly influenced by factors such as national cultural inclinations, social demands, policy guidance, and the level of technological development.

Cross-Cultural Differences in Digital Media Education

China's Digital Media Education Model. The Ministry of Education centrally approves and manages the programme offerings of higher education institutions in China. The 2018 National Standards for Teaching Quality included all 92 academic subjects and 587 majors in the national directory of undergraduate programs at regular higher education institutions, covering more than 56,000 programs across the country (Ministry of Education Higher Education Teaching Steering Committee, 2018). This standardized management framework is also reflected in the domain of digital media education, where programs are typically divided into two major directions: digital media art and digital media technology. The Digital Media Art track emphasizes creative expression and artistic practice by exploring how digital tools and

platforms can be used for artistic creation. Its curriculum commonly includes courses such as game design and development, animation design, fundamentals of computer technology, and photography and videography. On the other hand, the Digital Media Technology track focuses on technological implementation and tool development, primarily researching how to develop and apply digital media products using approaches drawn from fields such as computer science, electronic engineering, and artificial intelligence. This track's coursework includes subjects such as digital media technology probabilities, introductory programming, and algorithm design and analysis (Zhu & Hu, 2022).

U.S. Digital Media Education Model. In contrast to China's policy-driven approach to curriculum design, the United States places greater emphasis on a multifaceted consideration of factors in digital media education, including interdisciplinary integration, industry demands, institutional resources, and student interests. American universities stress the deep fusion of digital technology and creative arts, leading to the subdivision of programs into various specializations (Hotcourses Abroad, n.d.). For instance, some majors focus on the design and development of interactive digital products, encompassing video games, mobile applications, and virtual reality experiences. Others concentrate on media technology aspects, involving audio engineering, video production, and digital broadcasting. There are also programs dedicated to visual content creation, emphasizing 2D and 3D animation techniques in film, television, and digital platforms. Additionally, some majors focus on user experience, character design, and game development, as well as internet and new media content creation. This diversified and detailed program segmentation aims to cultivate interdisciplinary knowledge and practical skills in students, enabling them to adapt to the rapid changes in the digital media industry.

UK' s Digital Media Education Model. The UK's digital media education model shares similarities with that of the United States, with both systems emphasizing interdisciplinary curriculum design and practical teaching methods. They aim to cultivate innovative and well-rounded talents through flexible teaching approaches and close collaboration with industry. However, UK education places a greater emphasis on critical thinking. In digital media education, this is evident not only in the training of technical and creative practices within the curriculum but also throughout the teaching methods and assessment systems (University College London, n.d). UK universities typically integrate theory and practice closely, requiring students to engage in case analysis, reflective writing, and critical discussions while creating digital content. For example, after completing project work, students are often required to submit not only their creations but also critical analysis reports, reflecting on the significance, production process, and potential impact of their work from multiple perspectives. This method helps students learn more than just basic skills. It encourages them to understand how media shapes our view of reality and is affected by business and politics. This leads to better decision-making and the ability to ask important questions.

Japan's Digital Media Education Model. In Japan, higher education institutions exhibit a distinctive integrative approach to digital media education. On one hand, universities autonomously determine and adjust their specialized programs based on their unique educational philosophies, academic strengths, and the demands of local industries and societies. This autonomy fosters the development of diverse and individualized curricula, as evident in the nuanced distinctions between digital media arts and digital media technology. Institutions actively explore the intersection of traditional culture and modern technology, achieving multidimensional integration in fields such as animation, gaming, digital arts, and technology development. This approach aims to cultivate versatile talents who possess both creative

expression abilities and a solid technical foundation (Keio University Graduate School of Media Design, n.d.). Concurrently, while enjoying significant autonomy, Japanese universities adhere strictly to the guidance and supervision of the Ministry of Education, Culture, Sports, Science, and Technology (MEXT) to ensure the standardization and uniformity of their program offerings (Iles, 2022). This dual emphasis on autonomy and regulation enables Japan's digital media education to adapt flexibly to evolving market and cultural needs while maintaining overall educational quality and advancement.

Table 1: Adoption and Prevalence of Digital Media Education Across Countries

	Adoption Timeline	Level of Prevalence
the USA	The USA, a leading origin of digital technology, pioneered digital media in education in the late 20th century, with many colleges offering related majors.	72 U.S. universities offer digital media major. Digital communication and multimedia have become popular fields among students.
China	Digital media education in China emerged around 2000. In 2004, the Ministry of Education approved related majors, prompting universities and colleges to offer these courses.	Digital media-related majors have been added by a large number of colleges and universities, by 2024, more than 300 universities in China have opened.
the UK	Compared to the US, the UK has a much longer history of media education, which became inherent in the college curriculum as early as the mid-20th century.	Many UK universities offer specialized programs in digital media and communication, each tailored to their unique operational styles and academic strengths.
Japan	Japan was limited in educational technology. During the pandemic, the online education was unprepared, leading many institutions to adopt an "online assignments and offline self-study".	Although some colleges and universities offer courses related to digital media, the overall number is relatively small.

In summary, each country exhibits distinct characteristics when structuring digital media education programs. Under its policy guidance, China emphasizes standardization and systematization. The United States focuses more on flexibility driven by market demands and interdisciplinary integration. The United Kingdom further stresses the integration of critical thinking with theoretical and practical aspects. Japan achieves a balance between flexibility and regulation through high autonomy alongside government guidance. These differences not only reflect the varying educational systems and cultural backgrounds of each nation but also indicate their respective strategic priorities and future directions in cultivating digital media talent. Table 1 compares the adoption timeline and current prevalence of digital media education across four countries.

Key Factors Influencing the Disparities

National Technological Infrastructure. China’ s technical infrastructure is highly developed, particularly in internet penetration, 5G coverage, and cloud computing, providing robust hardware support for the growth of digital media education. For instance, large-scale online education platforms (such as Xuetang and MOOC platforms) offer convenient distribution channels for digital media education courses. The U.S. boasts world-leading technical

infrastructure, especially in high-performance computing, virtual reality, and artificial intelligence, ensuring state-of-the-art technological support for digital media courses. Collaborations between universities and enterprises—such as research labs with Meta and Apple—further enhance the technical content of digital media education. The UK' s technical infrastructure is relatively advanced, particularly in areas such as virtual reality and augmented reality. University laboratories integrate with creative studios, enabling students to engage in practical exploration during their studies. Japan' s technical infrastructure is highly developed, particularly in 3D modeling, virtual reality, and artificial intelligence, providing top-tier technological support. Universities frequently collaborate with major corporations (such as Sony and Nintendo) to drive the development of technology-focused courses.

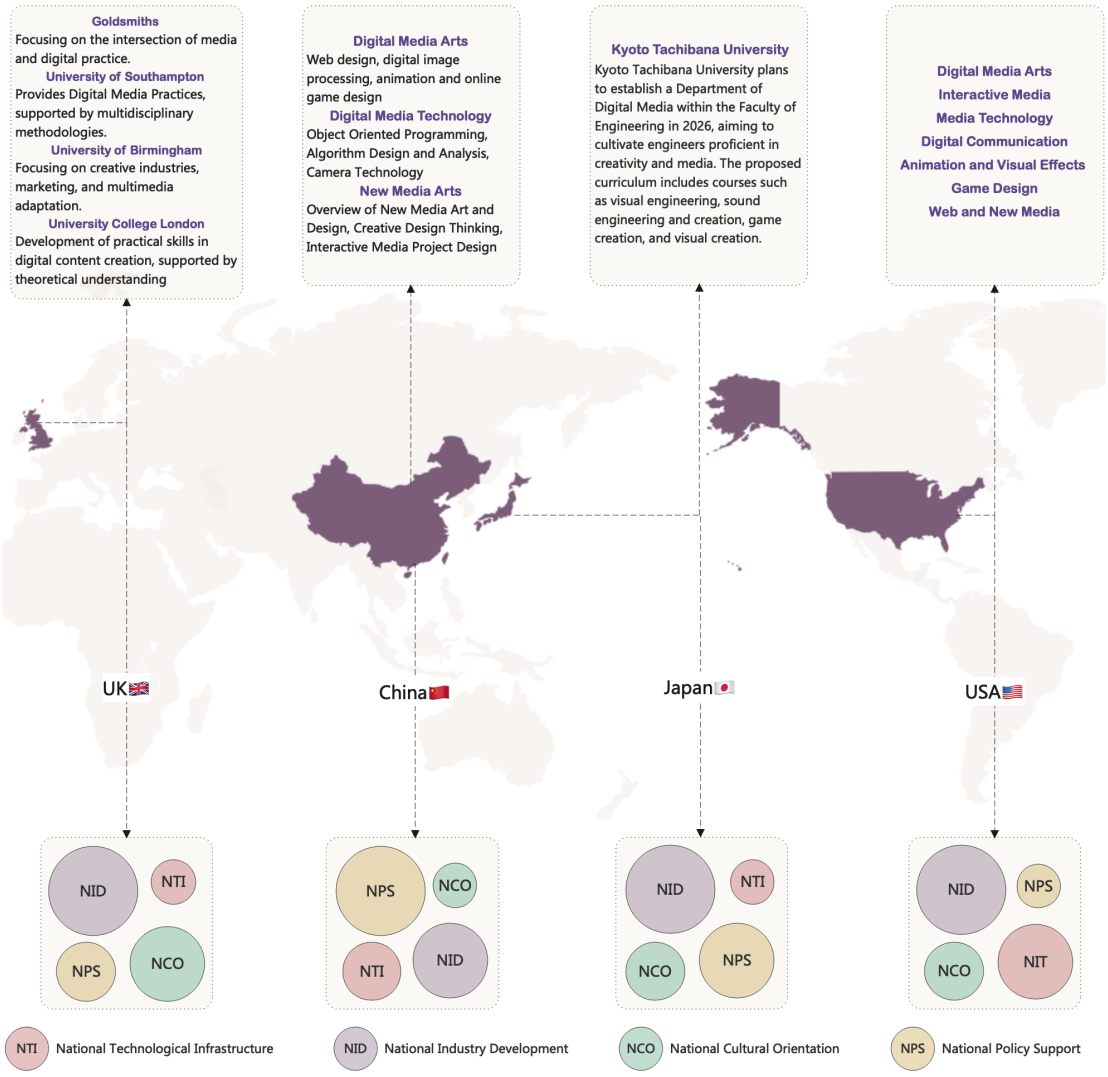
National Industry Development. China's rapidly growing internet sector (including platforms like TikTok and WeChat) and film production industry demand a wealth of digital media professionals. The gaming industry (led by companies like Tencent) is a global leader, providing application scenarios and employment opportunities that guide course design. The U.S. is the global center of the entertainment industry. Its mature film, advertising, and gaming sectors have a huge demand for digital media graduates. Collaborations between Hollywood, major gaming companies (such as Epic Games), and universities deeply influence course design and content development. The UK' s creative industries—such as advertising, animation, and game design—are a significant part of its economy. Universities maintain close ties with these sectors, and cities like London serve as hubs for creative enterprises, fostering a positive feedback loop between digital media education and industry demand. Japan is a global leader in anime, gaming, and film industries, directly driving the specialization of digital media education. The country' s highly developed industry supply chains support the fine-tuning and professionalization of digital media courses.

National Cultural Orientation. China's culture emphasizes collectivism and practicality, leading course designs to focus on imparting technical skills and producing application-oriented outcomes. Traditional cultural elements (such as calligraphy and painting) are integrated with modern digital media technology, creating a demand for uniquely Chinese content. American culture values individualism and innovation, and digital media courses emphasize creative expression and interdisciplinary skills. There is strong support for experimental and exploratory projects, allowing students to freely explore new technologies and creative formats within their studies. UK digital media education often combines semiotics, cultural studies, and design theory. It integrates British literary and artistic traditions into the curriculum, providing students with a rich cultural foundation. Japanese courses focus on technical precision (such as frame-by-frame accuracy in animation) and teamwork. The integration of traditional Japanese aesthetics (e.g., Japanese-style designs) with modern digital technologies lends a unique cultural flavor to the curriculum.

National Policy Support. National policies (such as the "Cultural Power" strategy and "Internet Plus" initiatives) explicitly encourage the development of digital cultural industries and the digital transformation of educational resources. While standardized curriculum guidelines from the Ministry of Education have facilitated large-scale growth, they also limit innovation and diversity in course offerings. The U.S. government intervenes directly less often, but provides research funding and grants that allow universities to design their own courses. Policies promoting innovation and entrepreneurship (such as the SBIR program) indirectly influence the development of digital media-related technologies and content in education. The UK supports digital media education through bodies like Creative Skillset, ensuring seamless integration between industry and education. Targeted funding policies (such as tax incentives)

have encouraged the diversification of digital media education content. Government support for digital media education is relatively limited, relying instead on industry-driven and university-led initiatives. Regional policies (such as local revitalization plans) indirectly support the popularization and promotion of digital media education through attracting talent to the digital cultural sector. Figure 1 is a Comparative Analysis of Digital Media Education Across Four Countries: UK, China, Japan, and the USA.

Figure 1: Global Comparison of Digital Media Education



Discussion & Conclusion

This study provides a comparative analysis of digital media education across four countries—China, the United States, the United Kingdom, and Japan—examining how national technological infrastructure, industry demands, cultural orientations, and policy frameworks shape educational practices. The findings highlight significant cross-cultural differences in digital media education, illustrating how these factors influence curriculum design, skill development, and industry alignment.

Digital media education exhibits significant variations in prevalence and curriculum structure across different countries, shaped by historical adoption, educational philosophies, and societal needs. The United States and the United Kingdom, as early adopters, have established

comprehensive programs, whereas China and Japan have more recently intensified their focus on this field. Curriculum design also reflects national priorities: the U.S. tailors its programs to align with career pathways, ensuring industry relevance; the U.K. integrates theoretical and practical components, fostering critical engagement; China distinguishes between digital media arts and technology, offering a broader spectrum of courses; and Japan blends traditional aesthetics with cutting-edge technology, aligning digital media education closely with its cultural and industrial strengths. Beyond curriculum design, technological infrastructure, industrial development, cultural orientation, and policy support play pivotal roles in shaping digital media education, underscoring the diverse strategies nations employ to cultivate talent in an increasingly digital world.

Theoretical and Practical Implications

This study contributes to the theoretical discourse on global digital media education by highlighting how national contexts shape curriculum structures and educational priorities. In practice, the findings provide valuable insights for institutions and policymakers, offering guidance on developing adaptable and globally relevant digital media programs. To enhance educational outcomes, universities should integrate technical training with creative and interdisciplinary approaches, ensuring that graduates are equipped to meet evolving industry demands. Additionally, policymakers should foster stronger collaborations between education and industry while balancing standardization with innovation, enabling digital media education to remain both structured and flexible in a rapidly changing digital landscape.

Limitations of the Study

While this study offers valuable insights into the cross-cultural differences in digital media education, certain limitations must be acknowledged. The research focuses on four countries, which may limit the generalizability of the findings to other regions with distinct educational models. Additionally, discrepancies in curriculum documentation across countries posed challenges in ensuring direct comparability of data. Furthermore, as this study primarily relies on institutional analysis, it does not incorporate student perspectives, which could provide deeper insights into learning experiences and outcomes. Future research should address these limitations by expanding the sample scope, improving data comparability, and integrating student-centered analyses to develop a more comprehensive understanding of global digital media education.

Suggestions for Future Research

Digital media education research should include emerging digital economies like South Korea and India to better understand how different nations adapt to technological advances. Examining the long-term effects of digital media policies on educational outcomes would also shed light on national strategies. Finally, student-centered research should be included.

References

Almakaty, S. S. (2024). New Trends in Communication and Media Education in the Digital Age: A Global Analysis and Comparison Study.

Brown, J. S., & Duguid, P. (2017). *The social life of information: Updated, with a new preface*. Harvard Business Review Press.

Dhiman, D. B. (2021). The Practice of Media Education and Media Research: A Review on Five Asian Countries. *The Practice of Media Education and Media Research: A Review on Five Asian Countries. Global Media Journal*, *19*(44), 1-7.

Eshet-Alkalai, Y. (2004). Digital literacy: A conceptual framework for survival skills in the digital era. *Journal of Educational Multimedia and Hypermedia*, *13*(1), 93-106.

Hakkarainen, K., Palonen, T., Paavola, S., & Lehtinen, E. (2004). Communities of networked expertise: Professional and educational perspectives.

Hotcourses Abroad. (n.d.). Digital media courses in the USA. Hotcourses Abroad. Retrieved from https://www.hotcoursesabroad.com/study/training-degrees/us-usa/digital-media-courses/loc/211/cgory/ka.42-4/sin/ct/programs.html

Iles, T. (2022). Media Education: Bridging the Intersection Between Media Literacy and Citizenship Education in Japan. *electronic journal of contemporary japanese studies*.

Keio University Graduate School of Media Design. (n.d.). *Curriculum of Master's Program*. Keio University. Retrieved from https://www.kmd.keio.ac.jp/academics/curriculum-of-masters-program

Ma, H., & Li, J. (2021). An innovative method for digital media education based on mobile internet technology. *International Journal of Emerging Technologies in Learning (iJET), 16*(13), 68-81.

McLuhan, M. (1994). *Understanding media: The extensions of man.* MIT press.

Ministry of Education Higher Education Teaching Steering Committee. (2018). *National Standards for Teaching Quality in Undergraduate Programs of Regular Higher Education Institutions.* Beijing: Higher Education Press.

New York University Tisch School of the Arts. (n.d.). Interactive Telecommunications Program. New York University. Retrieved from https://tisch.nyu.edu/itp

Paul, C. (2015). Digital art. Thames & Hudson. https://thamesandhudson.com/digital-art-9780500204238

Selwyn, N. (2021). Education and technology: Key issues and debates. Bloomsbury Publishing.

University College London. (n.d.). *Digital Media: Critical Studies MA. UCL.* Retrieved from https://www.ucl.ac.uk/prospective-students/graduate/taught-degrees/digital-media-critical-studies-ma

Zhu, Z., & Hu, J. (2022). The practical logic and development opportunities of educational digital transformation. *E-education Research*, *43*(1), 5–15.

Contact email: 2104582@student.uwtsd.ac.uk

Musical Activism in the U.S. and Japan in the Post-9/11 Era

Mikiko Tachi, Chiba University, Japan

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
This paper examines the musical and critical responses to the War on Terror in the aftermath of 9/11 in the U.S. and Japan by drawing from newspaper and magazine articles, published interviews of musicians, and recordings. It analyzes the backlash against an American country music trio who voiced anti-war sentiments while country musicians largely supported the war. It highlights how Japanese critics used the language of democracy and freedom to interpret the controversy. The study also examines Japanese musicians' opposition to the Iraq War, focusing on the anti-war activism of a popular rock artist who published a poem and composed a song about the futility of war. While American and Japanese artists received similar criticism, their approaches to anti-war expressions differed. The paper identifies an anti-war rhetoric in Japan that emphasizes the image of children as innocent victims, a theme deeply rooted in post-WWII Japanese memory.

Keywords: Post-9/11, Music, Activism

iafor
The International Academic Forum
www.iafor.org

Introduction

This paper explores how musicians and critics in the U.S. and Japan responded to the aftermath of 9/11 and the ensuing wars. After 9/11, there was a surge of patriotic sentiments, particularly among country musicians, in the U.S. Artists made songs that justified the War on Terror. On the other hand, a country music trio that opposed the war and criticized the President was boycotted and threatened. Japanese critics viewed this incident as revealing the hypocrisy of the nation that prides itself on being the beacon of freedom and regarded the trio's comeback as a symbol of the restoration of democratic values in the U.S. This is compared to how Japanese musicians and celebrities expressed their opposition to the Iraq War, which they did in large numbers against the conventional wisdom that they should stay out of politics to remain popular among the public. The paper focuses on the anti-war activities of a member of a popular rock band who wrote a poem, opened a forum, and made an anti-war song to promote peace, with mixed reviews. It shows that in contrast to the way patriotism and the merit of a particular war were debated in the U.S., Japanese musicians and critics utilized the image of war in general derived from popular national memory of World War II.

There have been studies on the musical responses to 9/11, such as anthologies *The Politics of Post-9/11 Music: Sound, Trauma and the Music Industry in the Time of Terror* (Fisher & Flota, 2011) and *Music in the Post-9/11 World* (Ritter & Daughtry, 2007). While the former focused on the American phenomenon alone, the latter included articles on musical reactions outside the U.S., such as Peru, Senegal, Egypt, Mexico, and Afghanistan, with an emphasis on songs based on indigenous music. None of these case studies focused on Japan. My paper provides a new perspective on musical responses outside the U.S. by focusing on music in the Western genre of rock made in Japan, a key U.S. ally in East Asia.

9/11 and Country Music

A day after announcing his presidential candidacy, a Texas Republican Senator, Ted Cruz, remarked in a television interview that he had experienced a musical conversion after 9/11. He said that even though he had grown up listening to rock, he was disappointed by "how rock music responded" to 9/11 and was impressed by country music's reaction. Cruz stated that country music "resonated with me and [...] I had an emotional reaction that said these are my people" (CBS News, 2015). Some critics, including the comedian Bill Maher, perceived this remark as a cynical move to pander to conservative primary election voters. Maher spent a portion of his late-night some *Time with Bill Maher* questioning Cruz's sincerity, with which his guests, former Congressman Barney Frank, actor Zachary Quinto, and political commentator S.E. Cupp, agreed. Maher further pointed out that "a roster of classic rock" participated in benefit concerts in support of the 9/11 victims, which made Cruz's negative view of rock music's reaction dubious (Real Time with Bill Maher). Regardless of whether he was sincere, Cruz's remark highlighted the prominence of country music in its support of the War on Terror and the genre's association with conservative politics (Tachi, 2019).

Country musicians such as Toby Keith and Darryl Worley wrote songs that justified U.S. military retaliation after 9/11. The lyrics to Keith's "Courtesy of the Red, White, and Blue (An Angry American)" (2002) in part read, "And you'll be sorry that you messed with the U.S. of A. / 'Cause we'll put a boot in your ass / It's the American way." Worley sang in his song "Have You Forgotten" (2003): "Some say this country's just out looking for a fight / After 9/11, man, I'd have to say that's right." Alan Jackson's seemingly somber, reflective song about 9/11 titled "Where Were You (When the World Stopped Turning)" (2001) asserted the validity of

conservative, anti-intellectual values. In its refrain, he sang: "I'm just a singer of simple songs / I'm not a real political man / I watch CNN, but I'm not sure I can tell you the difference in Iraq and Iran / But I know Jesus, and I talk to God…" In this short passage, the singer articulated conservatives' belief that knowledge spread through major media is less important than faith in Judeo-Christian God. The singer also revealed the political nature of the song while denying his being "political."

Chris Willman, the author of *Rednecks and Bluenecks: The Politics of Country Music*, wrote that "Darryl Worley and Toby Keith had come up with the most rousing protest music in a generation" (p. 15). According to Willman, rock music was slow in its musical response to 9/11 and the subsequent War on Terror until Green Day "finally had a commercial and critical hit in late 2004 with *American Idiot*" (p. 15). In contrast to the 1960s movement, when anti-war activists led the singing protest movement, the post-9/11 singing protest movement was led by those who supported the war.

The Dixie Chicks Controversy and Its Reception in Japan

The Dixie Chicks (renamed the Chicks in 2020) controversy in 2003 was one of the most notable incidents in the aftermath of 9/11 and the War on Terror that highlighted the conservatism of country music. On the eve of the U.S. invasion of Iraq, lead singer Natalie Maines told their cheering audience in London that she was against the impending war, saying, "We do not want this war, this violence, and we're ashamed that the president of the United States is from Texas." As this news spread to the U.S., country music radio stations dropped the band's songs from their playlists, called out for a boycott, and some staged a demonstration of smashing CDs with a bulldozer. Maines even received death threats during a concert tour (Younge, 2003, p. 8; Rossman, 2004, pp. 61-62; Kopple, Peck, & Cassidy, 2006; Katz, 2008, pp. 139-140). Their record sales plummeted, and they withdrew from the music scene for about three years until they reemerged with an album, *Taking the Long Way* (2006), which included a defiant song, "Not Ready to Make Nice." They also had the controversy documented in a film, *Shut Up and Sing* (2006), published in the same year (Katz, 2008, p. 140; Kopple et al., 2006; Hijikata, 2007, p. 35; Nishida, 2007, p. 19).

Economist Paul Krugman (2003) famously wrote an article in the *New York Times* stating that the radio conglomerate Clear Channel, which had ties to the Bush administration, was behind the movement, suggesting that this was not a grassroots movement but a corporate-led political attack on the artists. Gabriel Rossman (2004) argued that while Krugman's theory was widespread, the Dixie Chicks blacklist backfired against the radio conglomerate because it became the subject of a Senate Commerce Committee hearing, where senators criticized media concentration. Rossman contended that the audience, not the corporate elites, pushed local radio stations to boycott Dixie Chicks. Claire Katz argued that the Dixie Chicks controversy revealed misogyny in the country music business. The reason why the group was slammed after an anti-administration remark was not simply because country music fans were conservative and they made a comment that went against their beliefs, but because they were women who dared to make a political commentary: "Dixie Chicks were uppity women who had the audacity to speak out as women—as mothers—about an issue that is typically defined in hyper masculine terms, and as part of a masculine world. They had to be shut down" (p. 152). The band members seemed to agree with the view, as the title of their documentary film, *Shut Up and Sing,* taken from the lyrics of "Not Ready to Make Nice," suggests. In 2013, Maines answered in an interview that the lack of support they received from the country music

industry after their controversy confirmed her prejudice about country music and that she did not intend to return to the country music world (Time, 2013).

Japanese critics viewed this incident as going against the American ideal of free speech and democracy. Music critic Tadashi Igarashi wrote an article in May 2003 titled "The symbol of 'The Land of the Free' is weeping." He listed the attacks that the group had received and wrote, "Where has the First Amendment of the US Constitution that guaranteed the freedom of speech gone?" He also referred to the *New York Times* and other reports about radio conglomerates staging the boycott movement. He warned that the domination of the media by a small number of corporations threatened the fundamentals of democracy (Igarashi, 2003).

Magazines and major newspapers reported on the trio's comeback in 2007, when they received five Grammy Awards, suggesting that it showed the restoration of democratic values in the U.S. For example, Hiroshi Nishida wrote an article in the major national newspaper *Yomiuri Shimbun* titled "Winning the Grammy Award: Exercising the Freedom of Speech" and asserted that one of the reasons why the Dixie Chicks had received the award was because they persisted despite a harsh backlash against them and maintained their sense of resistance and progressivism, which, according to Nishida, were an integral part of popular music in the U.S. Nishida added that it was interesting that country musicians, whose music is old-fashioned, showed the conscience of Americans. He regarded the Dixie Chicks' defiance as expressing an American ideal (p. 19).

Sunday Mainichi magazine also reported the Dixie Chicks' winning of five Grammy Awards as the victory of the freedom of speech and the restoration of democracy in the U.S. Sachiko Hijikata contended in her article entitled "Three Anti-Bush Female Trio Made a Comeback with Five Grammys" that it was ironic that the restoration of democracy in the U.S., as exemplified by the fact that the Dixie Chicks' exercise of free speech was rewarded, was brought about by the Bush administration's declining credibility, which was caused by the war that was initially promoted in the name of democracy (Hijikata, 2007, p. 35).

Japanese newspapers and magazines also recycled the image of protesting anti-war American folk singers from the 1960s to depict the anti-Iraq War movement in the U.S. For example, on March 17, 2003, asahi.com showed a picture of the Sixties icon Peter Paul and Mary singing songs in front of the Lincoln Memorial at an anti-war march in Washington, DC. American folk songs of the 1960s were popular in Japan and were incorporated into political activism. A Japanese anti-war group called "Folk Guerilla" held weekly sing-ins in a central train station in Tokyo for six months in 1969, singing American folk songs of protest and Japanese adaptations and compositions (Tachi, 2009, pp. 128, 145-149). The 1960s folk song movement became the precursor of singing anti-war activities in Japan.

Anti-Iraq War Activities in Japan

Japanese citizens also joined in protest against the War on Terror, particularly the impending Iraq War, which the Japanese administration supported. According to the national newspaper *Asahi Shinbun*, in response to an American group ANSWER (Act Now to Stop War and End Racism), 10,000 protesters gathered in Hibiya Park in Tokyo, 5000 in Osaka, 4000 in Kyoto, and 1000 people in Nagoya. In Niigata (population 810,000), 100 gathered in response to a call from a minister, and they chanted "No War" on the rhythm of African drums ("Iraku Kogeki Hantai," 2003).

Japanese musicians and celebrities expressed their opposition to the Iraq War in large numbers against the conventional wisdom that entertainers should remain politically neutral to gain favor with the public. For example, musician and composer Ryuichi Sakamoto linked his home page to a site that counted war casualties and published a book opposing not only the War on Terror but categorically denounced war. A veteran rock musician, Kiyoshiro Imawano, known for singing controversial topics, sang American folk songs of protest from the 1960s, such as "Blowin' in the Wind" and "Where Have All the Flowers Gone" and John Lennon's "Imagine" on stage at his live concert ("Myujishn ga Haiyu ga," 2003). Women's magazine *Josei Seven* reported on demonstrations and hunger strikes carried out in front of the U.S. Embassy in Tokyo and listed 15 Japanese celebrities—actors, musicians, and athletes—opposing the war, alongside four American celebrities who were well-known in Japan, Sheryl Crow, Madonna, Winona Ryder, and George Clooney. The article showed pictures of these celebrities with their quotes, which ranged from directly opposing the Iraq War to mild condemnation of war in general and hope for peace ("NO WAR no Hata no Moto," 2003, pp. 226-227).

A rock musician, TAKURO, a member of the band GLAY, published a poem titled "Things that No One Can Take Away" in *Asahi Shimbun*, a major national newspaper, on March 19, 2003. It read: "There are things that no one can take away / Their families / Their lovers, / Their close friends / Their blue sky in their hometown / Their memorable places / Their smiles / Their hopes / Their dreams / And Their New Century." Then he wrote in English, in all caps, "CHILDREN IN THE WAR." He concluded the poem by stating that there is no reason or justification for war.

TAKURO also set up a web page titled TAKURO-NO-WAR.jp and invited people to post comments on this issue. According to an interview he gave a year later, this website had 342,442 accesses and 9443 comments in the two months until he closed the site in early May when President Bush made the Mission Accomplished speech. Those who commented on his web page ranged from a 9-year-old to a 79-year-old, but most were young people, with 55% teenagers and 24% in their twenties. The 79-year-old man wrote (through his grandchild who typed) that he was still haunted by the horrific memories of World War II and that he should be the last generation to have such an experience. He wrote that war meant seeing people die in front of you and bombs being dropped on you. He concluded that he was absolutely against the war and that there was no reason for that. TAKURO recalled that his web forum prompted many young people to talk to their grandparents who had experienced World War II firsthand and came away with anti-war sentiment ("NACK5 Special").

While he received sympathetic comments, he also faced criticism and threats. One commentator wrote that he was a hypocrite because all he could do was talk and could do nothing to stop the war. Another commented that his outrage toward the impending war in Iraq was arbitrary in that there were human rights violations everywhere in the world, including China, where the band toured. TAKURO also received personal threats, and his management office advised him not to go out alone at night. According to the interview, he and other celebrities also received criticism from those in the media for being opportunistic and not having enough credentials to discuss politics as they were mere entertainers ("NACK5 Special"). This line of criticism echoed the "shut up and sing" rebuke that the Dixie Chicks received. It reflected a sense of contempt towards those in the entertainment business. On the other hand, while the Dixie Chicks were mainly criticized for opposing a particular war, TAKURO was denounced for making a political stance.

After the newspaper announcement, TAKURO wrote a song titled "CHILDREN IN THE WAR," reusing the central phrase in his poem. The song opens with "a nameless flower with grey eyes that bloomed in the desert," muttering, "What is peace? What is peace?" The song's narrator, presumably a soldier, confesses that he had a hard time sleeping the previous night because he had killed a person for the first time in his life. The line reads: "The lightness of the trigger was laughing at the weight of human life." In the middle of the song, he juxtaposes the following English words: "Who's [sic?] Sacrifice, Victims, Presidents," perhaps alluding to the human sacrifice caused by the decisions made by political leaders. The title phrase "children in the war" is repeated twice before and after the English section, which serves as a refrain. After an extended instrumental interlude, the song concludes with the narrator looking up at the sky with an unspecified person, "you," hoping to return home. Still, the home is gone, along with the flower and friends, as the last line reads, "The town has all turned into ashes" (GLAY, 2003). TAKURO explained later in an interview that he deliberately made the song ambiguous and avoided graphic descriptions of atrocity, as that would deprive the audience of their imagination and discourage them from thinking further. He wanted to encourage the listeners to think independently about the meaning of peace ("NACK5 Special"). Twenty years later, as the war in Ukraine was waged, the band included the song in the repertoire of their concert tour upon TAKURO's insistence. His bandmate and vocalist TERU explained this selection in a general term, stating that the song dealt with the "eternal theme" of life and death caused by human conflicts and that he always sang this song with the hope that things would get better (Omae, 2023).

It is interesting to note that neither the poem nor the song is particularly about children, and yet the phrase "children in the war" is central to both works. The image of innocent children as victims of war is found in anti-war rhetoric in Japan, pronounced by both activists and citizens expressing their voices. For example, protesters chanted, "Do not drop bombs on Iraqi children" in a demonstration in Shizuoka on March 15, 2003. Protestors in Tokyo demonstrated a banner with a picture of little children printed on it ("Iraku Kogeki Hantai").

The categorical denouncement of war, along with the imagery of innocent children as victims of war, is a common characteristic in Japanese anti-war rhetoric. Historian James Orr (2001) argued in his book *The Victims as Hero* that the idea that the Japanese citizens were victims in the atrocious war was tied to the sense of national identity and became widespread in post-WWII Japan, as both the conservatives and progressives promoted that idea to serve their political purposes. Many of the young commentators who responded to TAKURO online also drew lessons from World War II and concluded that war is wrong because of the suffering of civilian victims, particularly children. They were not just against a particular war but all wars, with children as potential casualties.

Conclusion

This paper showed differences in how the War on Terror was musically discussed in the U.S. and Japan. Japanese critics used the language of democracy and American values when depicting the American artists who criticized the U.S. administration and opposed the war. Still, the Japanese musicians who publicly opposed the war did not receive the same kind of recognition. An examination of the works of an anti-war musician also showed the centrality of a categorical denial of war and an emphasis on victims in the discourse of war that has been fostered in post-WWII Japan.

Acknowledgment

This work was supported by JSPS KAKENHI Grant Number 21K00938.

References

Brost, M. (2011). Post-Dixie Chicks country: Carie Underwood and the negotiation of feminist country identity. In Fisher, J.P., & Flota, B. (Eds.), *The politics of post-9/11 music: Sound, trauma, and the music industry in the time of terror* (pp. 161-172). New York: Routledge.

CBS News. (2015, March 24). *Ted Cruz: "My music tastes changed on 9/11"* [Video file]. Retrieved from https://www.cbsnews.com/news/ted-cruz-my-music-tastes-changed-on-911/

Fisher, J. P., & Flota, B. (Eds.). (2011). *The politics of post-9/11 music: Sound, trauma, and the music industry in the time of terror.* New York: Routledge.

GLAY. (2003). CHILDREN IN THE WAR [Song]. On *Beautiful Dreamer/Street Life* [Single]. Unlimited Records, Toshiba EMI.

Hijikata, S. (2007, March 4). Han Bush no josei 3 nin gumi ga guramii sho 5 kan kamu bakku [The anti-Bush female trio has come back with 5 Grammies]. *Sunday Mainichi*, p. 35.

Igarashi, T. (2003, May). Jiyuu no kuni no kanban ga naite iru: Bush o hihan shita Dixie Chicks eno basshingu kara miete kurumono [The symbol of the land of the free is weeping: What we can learn from the backlash against the Dixie Chicks, who criticized Bush]. *Music Magazine*, pp. 36-39.

Iraku kogeki hantai: Tokyo de Osaka de Kyoto de Nagoya de Fukuoka de [Opposing attacks on Iraq in Tokyo, Osaka, Kyoto, Nagoya, and Fukuoka]. (2003, March 16). *Asahi.com.* Retrieved from www.asahi.com/special/iraq/TKY200303150199.html

Jackson, A. (2001). Where Were You (When the World Stopped Turning) [Song]. On *Drive* [Album]. Arista Nashville.

Katz, C. (2008). "The eternal irony of the community": Prophecy, patriotism, and the Dixie Chicks. *Shofar: An Interdisciplinary Journal of Jewish Studies, 26* (4), 139-160.

Keith, T. (2002). Courtesy of the Red, White and Blue (An Angry American) [Song]. On *Unleashed* [Album]. DreamWorks Nashville.

Kopple, B., Peck, C., & Cassidy, D. (Producers) & Kopple, B. & Peck, C. (Directors). (2006). *Dixie Chicks: Shut up and sing* [Motion picture]. The United States: The Weinstein Company.

Krugman, P. (2003, March 25). Channels of Influence. *The New York Times.* Available from https://www.nytimes.com/2003/03/25/opinion/channels-of-influence.html?module=ArrowsNav&contentCollection=Opinion&action=keypress&region=FixedLeft&pgtype=article

Myujishan ga haiyu ga hatsugen Iraku senso [Musicians and actors speak out against the Iraq War]. (2003, April 6). *Shimbun Akahata*. Retrieved from

https://www.jcp.or.jp/akahata/aik2/2003-04-06/09_01.html

NACK5 Special TAKURO-NO-WAR.JP hansen no koe wa todoita ka [Has the anti-war voice reached?]. (2004, December 23). Retrieved from http://blackisbeautiful2013.blog.fc2.com/blog-entry-9517.html

Nishida, H. (2007, February 15). Guramii sho kakutoku: Genron no jiyuu no koshi [Winning the Grammy Award: Exercising freedom of speech]. *Yomiuri Shimbun*, p. 19.

Omae, T. (2023). *Interview vol.103 TERU interview.* GLAY official site. https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/reference_list_electronic_sources.html

Orr, J. (2001). *The victim as hero: Ideologies of peace and national identity in postwar Japan*. Honolulu: University of Hawaii Press.

Real Time with Bill Maher. (2015, March 28). *Real Time with Bill Maher: Ted Cruz is wrong about rock (HBO)* [Video file]. Retrieved from https://www.youtube.com/watch?v=3L5Sl5tIEc0

Ritter, J. & Daughtry, M. J. (Eds.). (2007). *Music in the post-9/11 world.* New York: Taylor & Francis.

Rossman, G. (2004). Elites, masses, and media blacklists: The Dixie Chicks controversy. *Social Forces, 83* (1), 61-79.

Tachi, M. (2009). *The folk music revival then and now: Politics, commercialism, and authenticity in folk music communities in the U.S. and Japan* (Doctoral dissertation). Brown University, Providence, RI, USA.

Tachi, M. (2019). Country music and presidential politics in the contemporary United States. *Proceedings of the 17th Hawaii International Conference on Arts and Humanities*, 360-387.

TAKURO/GLAY. (2003, March 19). Things that no one can take away [advertisement]. *Asahi Shimbun*. Retrieved from https://x.com/GLAY_share_fan/status/1685601796142809088

Time. (2013, May 11). *10 Questions for Natalie Maines* [Video file]. Retrieved from https://www.youtube.com/watch?v=m0dy_Xl5EH0http://www.spiegel.de/international/spiegel/interview-with-a-dixie-chick-let-them-hate-us-a-426213.html

Washington D.C. de renjitsu no hansen shukai [Anti-war gatherings are taking place every day in Washington DC]. (2003, March 17). *Asahi.com*. Retrieved from www.asahi.com/special/iraq/TKY200303170121.html

Willman, C. (2005). *Rednecks and bluenecks: The politics of country music.* New York: New Press.

Worley, D. (2003). Have You Forgotten? On *Have You Forgotten?* [Song]. On *Have You Forgotten?* [Album]. DreamWorks Records.

Younge, G. (2003, March 20). Censorship: Growing signs of backlash against anti-war sentiment: Anti-Bush remark hits band CD sales. *The Guardian,* 8.

Spontaneous GenAI Adoption in the Newsroom: Deficiencies and Strategies

Doan Ngoc Thanh Tam, Ho Chi Minh City University of Economics and Finance, Vietnam

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
AI is revolutionizing the news industry. The relationship between tech companies and news organizations is gradually becoming dynamic and complex. Since news professionals are significant stakeholders, insights into their perceptions and aspirations can play a decisive role in these change implementations and the future media landscape. Therefore, this qualitative study, based on the Unified Theory of Acceptance and Use of Technology (UTAUT), is designed to: access the experiences of journalists with the growing popularity of GenAI; explore facilitators within news organizations; and investigate how journalists perceive the current and prospective role of GenAI in newsrooms. The author of this study utilizes an exploratory approach and thematic analysis to gain insights from 11 news professionals from 10 different news organizations across various fields: press, radio, and television broadcasting in Vietnam. The results indicate that, amidst the widespread availability of AI-powered technologies, there exists a gap between respondents' high usage frequency and inadequate tedious support within media outlets. As a result, spontaneous informal "Peer Communication" is playing a critical role in shaping perceptions of GenAI's usefulness and promoting the effective adoption of GenAI in journalism. Additionally, the author also finds that journalists' motivation to begin and continue to apply GenAI in newsrooms is "Performance Expectancy", with a particular emphasis on operational "Efficiency" and practical "Capabilities". Female journalists, especially, show heightened attention to "Social Influence". These findings suggest systematic adoption, user-oriented in-house training, and multi-directional communication are necessary for fruitful GenAI integration in newsrooms.

Keywords: GenAI in Journalism, UTAUT, Peer Communication

iafor
The International Academic Forum
www.iafor.org

Introduction

AI and GenAI are revolutionizing the news industry as they are supporting newsrooms in various activities, including news production, presentation, distribution, and consumption (Beckett & Yaseen, 2023; Chan-Olmsted, 2019; Opdahl et al., 2023).

The relationship between tech companies and the news organization is dynamic and complex. On one hand, tech companies invest in AI integration in newsrooms. To illustrate, Google's Digital News Initiative grants €706,000 to the Press Association so that the news agency can cooperate with Urbs Media, a data-driven news start-up, to set up Radar, a AI-powered tool that can generate news stories (Gregory, 2017); OpenAI, an AI research and deployment company, granted $5 million to American Journalism Project, a venture philanthropy, so that both can come up with proper solutions for the supportive role of AI in local news organizations (American Journalism Project, 2023); Google has signed a deal to pay millions dollars annually to News Corp to develop AI-related content and products (Patel, 2024). On the other hand, news organizations provide data, information, and news articles access to tech companies. For instance, media company Axel Springer signed a deal authorizing OpenAI, ChatGPT developer, to use news content from newspaper company Politico (Bruell, 2023); News Corp, similarly, have signed an agreement allowing news content from the publications, for example the Wall Street Journal and the New York Post, can be used and learnt by OpenAI (Guardian staff and agencies, 2024).

Under this context of organizational change and tech-news cooperation, existing research has drawn attention to how AI has influenced journalistic practices positively because AI is effective in "improving the accuracy of news perceptions" (Horne et al., 2019). On the contrary, there is a growing body of literature that recognizes concerns, such as: AI's shortcomings, limitations, risks (Quinonez & Meij, 2024), GenAI's unfavorable outcomes (Kieslich et al., 2024), AI's limitations including "misinformation", "plagiarism", "stereotypes", and "the unrepresentative nature of online databases" (Gondwe, 2023); gender and racial biases in AI-created contents (Fang et al., 2024).

To my knowledge, there is still a notable gap in understanding newsroom constraints and journalists' countermeasures (Møller et al., 2024a; Møller et al., 2024b), especially within the unique cultural and political context of Vietnam. This study, therefore, aims to explore news professionals' experiences and aspirations on organizational-level facilitators necessary for the successful integration of GenAI, while incorporating Global South insights for a more holistic understanding. The empirical study offers some important insights into challenges and opportunities associated with the incorporation of GenAI in newsrooms. The findings, therefore, should make an important theoretical contribution to the field of media studies and technology adoption studies while also providing operational insights for news industry leaders and tech industry executives seeking smooth changes and successful collaborative outcomes.

This paper is structured as follows. The next section explores the contextual background of GenAI adoption in newsroom practices and explains the alignment of the UTAUT model with research on AI adoption in journalism. The methodology details the research design, data collection methods, and analytical strategies employed in the study. This is followed by the presentation of findings and discussion section, which provides and examines critical discoveries in relation to the existing theoretical framework and literature. Finally, the conclusion summarizes the key contributions, implications, and directions for future research.

Literature Review

AI and GenAI Adoption in Journalism

John McCarthy used the word Artificial Intelligence (AI) to describe the intelligent computer programs whose performance or tasks are done with human-like intelligence (Rajaraman, 2014). Generative Artificial Intelligence (Generative AI or GenAI) is one of machine learning technologies. Its name reveals its particular ability to generate or create new data from training data (Reddy, 2024).

A growing body of research has examined the adoption of AI and GenAI across various aspects of newsroom operations. Quinonez and Meij (2024) stated that newsrooms already use AI models to support news-gathering processes. Pinto and Barbosa (2024) also make a list of AI utilization, including: "data visualization", "automated generation of statistics", "the creation of generative textual news (with NLG)", "infographics". Other specific examples include: the New York Times adopts machine learning (ML) to moderate more comments for its articles; the Guardian has used Chatbot on Facebook to help users find their preferred news stories; the Associated Press uses NewsWhip, a tool for discovering content, to track trending news stories across social media platforms (Chan-Olmsted, 2019).

Several studies, on the other hand, highlight the risk factors. Among these, three key issues emerge. First, the limitations of AI technology itself challenge its seamless application. They include biases in algorithms, inaccuracies in generated content, and inability to fully meet the standard of today's journalism (Aydın & İnce, 2024; Fang et al., 2024; Gondwe, 2023). Second, the misuse of these technologies by journalists raises concerns about ethical standards. Brigham and colleagues (2024) discovered that journalists were not only providing sensitive data to the LLM to gain AI-generated outputs but also publishing those AI-created contents without carefully editing or modifying. Finally, the increasing reliance of news organizations on technology companies for AI tools introduces the threat of newsrooms losing control over the news production process (Simon, 2022).

Possibilities or perils, AI and GenAI are normally at the center of most research. Nevertheless, insights into human factors within organizational constraints remain largely unexplored (Møller et al., 2024a). In other words, news organizations may or may not provide adequate support or incentives, influencing news professionals' adaptation to AI-driven changes (Cools & Diakopoulos, 2024; Simon, 2024). To navigate the mist-covered road toward newsrooms' future, this qualitative study adopts the Unified Theory of Acceptance and Use of Technology (UTAUT) model to explore:

1. How do journalists experience the growing popularity of GenAI in the newsroom?
2. What are organizational facilitators and barriers to GenAI technology utilization?
3. How do news professionals perceive and navigate organizational constraints in their adaptation to AI-driven changes in the newsroom?

Theoretical Perspectives on Technology Adoption

To explore technology adoption, one notable model is the Unified Theory of Acceptance and Use of Technology (UTAUT) model, which was developed by Venkatesh and colleagues in 2003 (Marchewka & Kostiwa, 2007). UTAUT variables discover influential factors and their degree of impact on technology acceptance and behavioral intentions of individuals. These factors include: (1) Performance Expectancy (PE) describes the belief that using the technology will enhance job performance; (2) Effort Expectancy (EE) refers to the ease of use of the

technology; (3) Social Influence (SI) relates to the belief that significant others believe that it is necessary to use the new technologies; (4) Facilitating Conditions (FC) mentions the resources provided to encourage technology acceptance (Attuquayefio & Addo, 2014; Venkatesh et al., 2003).

UTAUT has been used in a number of scientific papers. For instance, Attuquayefio and Addo (2014) use the UTAUT model to examine students' behavior towards ICT usage. Gruzd and colleagues (2012) applies the model to identify factors that determine intention and usage of social media by scholars in the Information Science and Technology field. Bixter and colleagues (2019) modifies the UTAUT model to organize the interview content when exploring older adults' perceptions and attitudes towards various social communication technologies. Rempel and Mellinger (2015) also use the UTAUT as the main theoretical model to discover how research respondents choose a bibliographic management tool. Similarly, Venkatesh (2022) proposes a comprehensive agenda for future research, focusing on the application of the UTAUT as a framework for understanding the adoption and utilization of AI tools in various sectors.

Choosing UTAUT as an underpinning theory for exploring journalists' perceptions of GenAI adoption in the newsroom can be justified for several reasons. To begin with, UTAUT focuses on how individuals develop behavioral intentions of utilizing new systems (Venkatesh et al., 2003). It aligns directly with this research's objectives, which is shedding light on journalists' perceptions of GenAI in the news industry. A further rationale might be that UTAUT's four variables can serve as a foundation for creating qualitative research themes and interview questions. PE and EE can lead to understanding of respondents' evaluation on GenAI's capabilities and accessibility. FC can explore various types of support mechanisms such as financial and technological facilitators, which exist or are needed within news organizations. SI can guide questions about the influence of experts, leaders, and significant others on journalists' intention and utilization. Finally, UTAUT is a well-established framework that has been validated in numerous studies. Using it as a theoretical lens ensures that this research is grounded in a reliable and widely accepted model. Therefore, UTAUT is a suitable choice for this paper.

Methodology

Research Design

This study adopts a constructivist approach and uses semi-structured interviews to explore news professionals' nuanced experiences of GenAI in real-world newsrooms, balancing structured questions with open participant insights (Adams, 2015; Magaldi & Berler, 2020). Qualitative research provides valuable data while investigating participants in their natural settings (Bryman, 2016). Indeed, researchers build rapport with participants, so that researchers can understand the participant's point of view and encourage the emergence of new ideas.

Sampling

Three complementary sampling techniques were employed in this study. First, using purposive sampling (Miller & Salkind, 2002), potential participants were identified based on their experience and interest in the research topic: GenAI adoption in the news industry. This involved reviewing their publicly online profiles and shared articles on their individual social media platforms such as LinkedIn or Facebook. Other interview participants were identified

through the author's personal connections. Ultimately, a list of promising respondents was compiled, resulting in the identification of 34 individuals currently working at news organizations in Ho Chi Minh City, Vietnam. Participants were then contacted through a range of platforms, including LinkedIn, Facebook Messenger, and Zalo, a popular Vietnam-based social platform and Over-the-Top (OTT) application service. Using convenience sampling, 10 respondents agreed to participate in the interviews. Subsequently, snowball sampling was employed, with one participant recommending another relevant professional, thereby expanding the pool of respondents. To sum up, the study successfully gathered valuable insights from one-on-one interviews with a total of 11 news professionals (Table 1).

Although the sample size may seem small, the participants represent 10 diverse agencies (press, radio, and television), ensuring insights into various contexts. Additionally, the sample aligns with Eisenhardt's (1989) recommendation of at least 10 cases for theoretical saturation, supporting the validity of the study. Indeed, thematic saturation was achieved after the eighth interview. At this point, the primary data collection method and its strategic implications were sufficiently understood, and the research questions were effectively addressed. This outcome is largely attributed to the study's focused approach, which involved interviewing only practitioners with substantial experience in AI application within news organizations.

The small sample size, however, presents a limitation in the study, as it may reduce the ability to generalize the findings to all newsrooms in Vietnam. While the insights are valuable, they primarily reflect the experiences of the selected participants rather than the broader industry. The author acknowledges this limitation and emphasizes the exploratory nature of the research.

Table 1: Participants' Demographics

Demographics		Participants Count
GenAI usage frequency	1 - 3 times per month	1
	1 - 3 times per week	1
	Daily	9
Journalism field	Radio	1
	Television	3
	Newspaper & Magazine	7
Gender	Female	4
	Male	7
Age	18 - 30	2
	31 - 40	5
	41 - 50	1
	51 and above	3
Experience	1 - 5 years	3
	6 - 10 years	1
	11 years or more	7
Qualification	Bachelor	8
	Master	2
	Doctor of Philosophy	1
Job level	Employee	7
	Team leader	2
	Manager	2

Data Collection

The data for this study were collected over a two-month period, from July to August 2024. Semi-structured interview is used as the primary data collection method to answer the research questions and achieve the study's objectives because the wealth of detail and supplementary information it provides was indisputable. The interviews were conducted predominantly in person, with 8 participants engaging in face-to-face discussions at various locations in Ho Chi Minh City, Vietnam. To accommodate participants' preferences and schedules, 3 interviews were conducted online using Google Meet and Zoom platforms.

The interview questions were structured around the four factors of the UTAUT model, including PE, EE, SI, FC, which also served as the study's primary predefined themes. To uphold the validity of the research, potential interview questions were also reviewed by three journalism experts. As a result, a total of 14 key questions were determined to comprehensively explore these themes while maintaining flexibility for the emergence of additional unanticipated themes, categories, and codes, based on participants' responses.

Each interview lasted between 30 and 120 minutes, depending on the participants' level of engagement and interest. Clarifying questions and probing techniques were employed throughout the process to explore responses from multiple perspectives, ensuring validity and credibility (Saunders et al., 2016). All interviews were audio-recorded with prior consent from the participants and transcribed for analysis.

Data Analysis

The inductive thematic approach was adopted as it is particularly valuable in under-researched or exploratory areas, allowing themes to emerge directly from the data and grounding the analysis in participants' perspectives (Guest et al., 2012).

Concerning research tools, NVivo was used to code and analyze the qualitative interview data, facilitating the identification of key themes. To be specific, initial open codes were derived from participants' responses, followed by the application of axial and selective coding to identify patterns and generate recurring themes (Braun & Clarke, 2006). These codes were subsequently grouped into potential categories by triangulating data across and within participants' responses. Main themes were then reviewed and refined to assess their coherence and relevance, with any overlapping or redundant themes either discarded or merged to ensure meaningful and distinct categorizations. Additionally, low-inference descriptors were employed, using direct quotations from participants to illustrate key findings.

Findings and Discussion

Drivers of GenAI Adoption in Newsrooms

Despite coming from various demographics, 9 out of 11 participants reported using GenAI applications daily to support their work as editors, journalists, photojournalists, and back-office IT staff. This demonstrated the growing prevalence of this new technology in newsrooms.

The most obvious finding to emerge from the analysis was that, "Efficiency" stood out as the most referenced code, mentioned 41 times across responses to various interview questions by

all 11 participants, underscoring its contribution to journalistic workflows and highlighting its significance to the participants (Table 2). Participants expressed positive attitudes and satisfaction through their tone and word choice during interviews. They consistently emphasized that GenAI accelerates tasks, saves time, and enhances both productivity and overall efficiency. This result is in agreement with Guzman and Lewis's (2024) findings, which highlight efficiency as a primary benefit of AI integration in journalism.

> Participant 06: When working on a photo with too many flaws, it used to take a long time to fix. With AI, it supports me in just 30 seconds. Its efficiency allows me to move on to other tasks instead of meticulously adjusting every tool, fixing the lighting, color, and sharpness. With AI, 30 seconds later, I have a finished photo.

Table 2: "Characteristics and Benefits" Category of GenAI in Journalism

Category	Code Name	Participants Count	Code Frequency
Characteristics and Benefits	Efficiency	11	41
	Cost Optimization	4	8
	Big Data	3	3
	Enhanced Quality	3	9
	Reduced Workloads	3	9

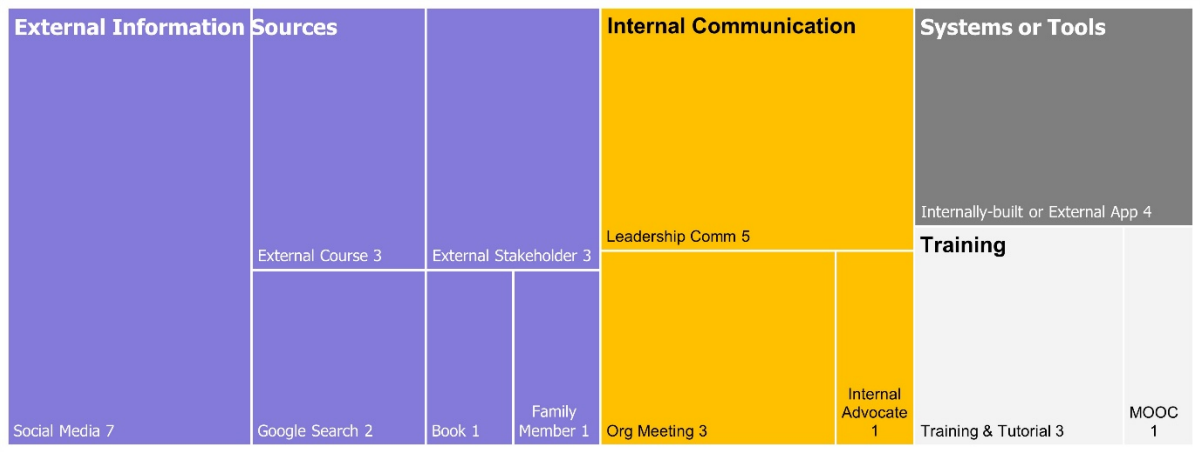
Although not directly asked, 10 out of 11 participants emphasized throughout the interviews that another key motivator for adopting GenAI was its ability to meet personal demands, categorized as "Personal Demand or Needs Recognition." This also accords with our earlier observations, which discuss how GenAI can assist journalists in performing a number of tasks (Cools & Diakopoulos, 2024), suggesting that news professionals are adopting GenAI to meet specific personal and work-related needs.

> Participant 07: Whether I use something depends on my personal needs.

> Participant 08: During my initial exploration, I realized that selective use of GenAI serves my work very well. Since then, I've continued to use it.

High Usage Versus Low Support

Figure 1: Facilitating Conditions for GenAI Adoption in Newsrooms



Since GenAI is a relatively new technology with few practical case studies in Vietnam, investment remains costly and risky. Unsurprisingly, only 4 respondents reported receiving support in the "Systems or Tools" category. To be specific, only one organization owned an internal AI-powered Speech-to-Text tool, while 2 other respondents noted that their organizations were in the process of developing internal GenAI tools, though details were unavailable due to confidentiality. Only one respondent reported having access to a ChatGPT subscription funded by their organization.

Similarly, "Training" was limited, with only 2 organizations receiving centralized internal training on GenAI. Additionally, one other respondent mentioned being provided with a link to an online course (via MOOC platforms) that employees could voluntarily use to improve their skills.

Another important finding was that within the "Internal Communication" category, methods used to encourage GenAI adoption in newsrooms were simple and monotonous. In most cases, if at all, leaders either casually suggested journalists to explore GenAI for their work or formally mentioned its implementation during official company-wide meetings, without additional initiatives to promote adoption. Only one in 10 organizations took proactive steps by training internal ambassadors to encourage GenAI adoption, coded "Internal Advocate".

> Participant 01: When we want to implement something new in an organization, we start small, with a group willing to change. When this smaller group achieves success and delivers effective results, it serves as a demo for others. Seeing the positive outcomes, others will feel compelled to adopt the same tools to avoid being left behind. Knowledge spreads like a virus. After a general sharing session, everyone knows who in the organization is well-versed in this area. These advocates then guide others in their departments or assist teams with specific needs. This process of knowledge transfer, from small groups to larger groups and across departments, ensures that AI knowledge spreads throughout the organization. Teams learn independently, and members guide one another. If questions arise, they can directly consult those advocates for further help.

Perhaps due to the limited internal facilitating conditions provided by their own organizations, most participants had proactively sought support from external sources, coded as "External Information Sources" such as books or online courses. Particularly, 7 respondents reported using social media platforms such as YouTube and TikTok to learn tips and techniques for

using GenAI, even though such general information was not always directly relevant to journalistic work.

> Participant 03: I go online to communities, follow them, and search for tools to use.

> Participant 08: Currently, I follow TikTok channels of experts who train on AI. They teach and also guide you step-by-step and explain how to think critically to craft accurate prompts. They also update you on the latest AI technologies. The TikTok accounts I follow are typically AI experts, technology developers or instructors of AI application courses, both in Vietnam and internationally. Some of the TikTok channels I follow include AI Foundation, Theaigrid, Hoc nhanh AI, Trieu AI Insight, and Xoa mu AI.

This result highlights the absence of all three pillars of AI capability in participants' newsrooms: (1) tangible resources, including data, technology, and basic infrastructure; (2) human skills, such as technical and business expertise; and (3) intangible resources, including coordination, change capacity, and risk proclivity (Mikalef & Gupta, 2021). Although the 11 participants from 10 newsrooms in this study do not fully represent the reality of the news industry in Vietnam, the findings still suggest significant deficiencies in news organizations. In fact, these results reflect a broader trend seen across various industries: individuals spontaneously adopt AI tools without fully understanding their benefits or risks (Bick et al., 2024), while organizations rush to integrate them without clear strategies, facing unclear paths to success and impacting socioeconomic inequalities (Agrawal et al., 2023; Capraro et al., 2024). Although this situation is not entirely unexpected, this empirical study once again underscores the current status of AI adoption and the urgent need for administrative-level intervention, strategic planning, systematic integration, and thoughtful progression to ensure AI successful integration in news organizations (Agrawal et al., 2023; Caner & Bhatti, 2020; Herremans, 2021).

Peer Communication as Current Solution

Acknowledging the lack of organizational support, 7 out of 11 participants described one effective strategy they have used to leverage GenAI adoption: sharing tools, discussing techniques, or resolving related challenges with their peers. These interactions between respondents and their peers in journalism, both within and outside their organizations, was coded "Peer Communication."

Although it could fall under "Facilitating Conditions" or "Internal Communication," the research team categorized "Peer Communication" separately to highlight its impact on UTAUT factors. Firstly, it enhanced "Performance Expectancy" and "Effort Expectancy" by developing confidence in GenAI benefits and ease of use.

> Participant 07: In my team, when someone discovers a new AI tool, they share it with others. If I know an AI tool that works well, I'll guide my team on how to use it effectively. When you're close to people who do similar work, you naturally exchange ideas.

In addition, peer communication also supported adoption through "Social Influence" by building trust and leveraging expertise within social networks.

> Participant 04: The colleagues I interact with most are those who are enthusiastic about AI. We often talk about how to use it and learn from each other.
>
> Participant 11 emphasized online peer groups: An online group makes it easier to share whenever needed.

Finally, as part of "Facilitating Conditions," peer communication or peer-led sharing helped journalists exchange tools, techniques, and applications, creating a knowledge base that supports broader GenAI integration into workflows.

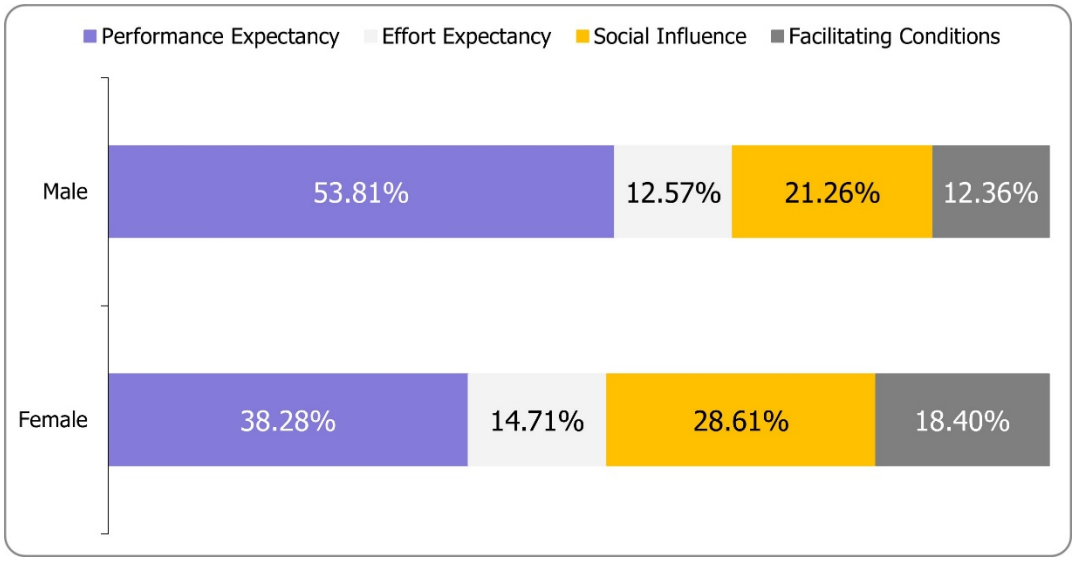
The concept of peer communication has been explored in several academic traditions, from sociology (Hooshmand & Adamiyan, 2022), media and communication studies (Qin and Men, 2019), to business and management studies (Anastasiei et al., 2022; Bindah & Othman, 2012; Wang et al., 2012), and organizational behavior (Potoski & Callery, 2018). Based on my knowledge, there may not be academic papers that explicitly define or mention peer communication as interactions among journalists in the context of applying GenAI in journalism. Our findings, therefore, are highly significant in linking this concept to the UTAUT, which is widely applied in technology adoption studies, indicating the remarkable flexibility of humans in adapting to emerging challenges and navigating difficulties. This strategy of exchanging information within social and professional networks is not new. However, by highlighting this practice, the study uncovers another spontaneous yet crucial aspect: this informal peer communication, too, requires organizational intervention. It is not to control but to break down barriers and knowledge silos, ensuring that GenAI users across all levels and departments can freely exchange knowledge, skills, and experiences. Such an open flow of information benefits both individual growth and overall organizational success (Muhammed & Zaim, 2020; WM Verhoeven & Thøis Madsen, 2022).

Gender Differences

Among the four factors of UTAUT, "Performance Expectancy" emerged as the most discussed theme. Although this predefined theme was covered in only two questions within the questionnaire, participants spent approximately 50% of the interview time discussing topics related to it. "Social Influence" ranked second, accounting for about 25% of the discussion time, reflecting GenAI's societal and industry recognition.

Notably, female journalists focused less on "Performance Expectancy" and showed greater interest in "Social Influence" and "Facilitating Conditions", compared to male counterparts (Figure 2). The author of this study, however, notes that these data must be interpreted with caution, as the sample size of this study is not large enough. To develop a comprehensive understanding of gender differences, additional research is needed. Therefore, this result should be viewed as a starting point for further studies, encouraging diverse approaches to exploring different demographic groups within news organizations.

Figure 2: Gender Focus: PE vs. Other UTAUT Factors



Conclusion

The study identifies three key findings and suggestions central to GenAI adoption in journalism in Vietnam. First, "performance expectancy" emerged as a primary motivator, with "efficiency" and benefits driving journalists to embrace AI tools, underscoring the need for tailored training and intuitive interfaces. Second, informal peer communication is serving as a critical facilitator, bridging the gap left by insufficient organizational support. This highlights the importance of fostering (1) strategic planning, thoughtful progression, and systematic integration of GenAI in news organizations, and (2) structured peer communication. Rather than leaving it to chance, aligning AI with business strategic goals ensures successful adoption, while officially facilitating peer communication, both online and offline, encourages collaboration and knowledge sharing, enhancing both individual and organizational performance. Finally, Social Influence was significant, particularly among female journalists, suggesting that communication campaigns should highlight success stories and peer endorsements to normalize AI usage.

This study contributes to the discourse on AI adoption in journalism in Vietnam by providing a nuanced understanding of the motivations, barriers, and strategies. It bridges theoretical perspectives with practical insights, offering a roadmap for aligning AI integration with communication practices and management considerations. By situating the findings within the frameworks of performance expectancy, social influence, and peer communication, the study addresses both individual and systemic dimensions of technological adoption.

Future research should address limitations by expanding the sample size to include a more diverse range of journalists and newsroom contexts, providing a broader understanding of GenAI adoption dynamics. Second, to develop a full picture, a longitudinal approach would be valuable in capturing the evolving trends of GenAI adoption in newsrooms over time. Additionally, future research should adapt to the rapidly shifting landscape of technologies and policies, exploring how emerging regulations and advancements influence AI adoption in journalism. Such efforts will ensure that findings remain relevant and actionable in a changing environment.

Acknowledgements

I would like to express my sincere gratitude to the 11 interview participants for their valuable insights, candid reflections, and straightforward observations. Their openness has significantly enriched this research and deepened the understanding of GenAI adoption in newsrooms. I sincerely appreciate their time, honesty, and professional perspectives.

References

Adams, W. C. (2015). Conducting semi-structured interviews. *Handbook of practical program evaluation*, 492-505.

Agrawal, A., Singh, V., & Fischer, M. (2023). LeanAI: A method for AEC practitioners to effectively plan AI implementations. *arXiv preprint arXiv:2306.16799*.

American Journalism Project. (2023). American Journalism Project announces new partnership with OpenAI to support local news. *The American Journalism Project.*

Anastasiei, B., Dospinescu, N., & Dospinescu, O. (2022). The impact of social media peer communication on customer behaviour—Evidence from Romania. *Argum. Oeconomica*, *2022*(1), 247-264.

Attuquayefio, S., & Addo, H. (2014). Using the UTAUT model to analyze students' ICT adoption. *International Journal of Education and Development using ICT*, *10*(3).

Aydın, B., & İnce, M. (2024). Can artificial intelligence write news: A research on determining the effect of artificial intelligence on news writing practice. *Intermedia International E-journal*, *11*(20), 24-41.

Beckett, C., & Yaseen, M. (2023). Generating Change. *A global survey of what news organisations are doing with AI. The London School of Economics and Political Science: https://static1. squarespace. com/static/64d60527c01ae7106f2646e9*, *656*

Bick, A., Blandin, A., & Deming, D. J. (2024). *The rapid adoption of generative ai* (No. w32966). National Bureau of Economic Research.

Bindah, E. V., & Othman, M. N. (2012). The effect of peer communication influence on the development of materialistic values among young urban adult consumers. *International Business Research*, *5*(3), 2-15.

Bixter, M. T., Blocker, K. A., Mitzner, T. L., Prakash, A., & Rogers, W. A. (2019). Understanding the use and non-use of social communication technologies by older adults: A qualitative test and extension of the UTAUT model. *Gerontechnology: international journal on the fundamental aspects of technology to serve the ageing society*, *18*(2), 70.

Braun, V., & Clarke, V. (2012). *Thematic analysis*. American Psychological Association.

Brigham, N. G., Gao, C., Kohno, T., Roesner, F., & Mireshghallah, N. (2024). Breaking News: Case Studies of Generative AI's Use in Journalism. *arXiv preprint arXiv:2406.13706*.

Bruell, A. (2023). ChatGPT creator OpenAI to pay Politico parent for using its content. *The Wall Street Journal.*

Bryman, A. (2016). *Social research methods*. Oxford University Press.

Caner, S., & Bhatti, F. (2020). A conceptual framework on defining businesses strategy for artificial intelligence. *Contemporary Management Research*, *16*(3), 175-206.

Capraro, V., Lentsch, A., Acemoglu, D., Akgun, S., Akhmedova, A., Bilancini, E., ... & Viale, R. (2024). *The impact of generative artificial intelligence on socioeconomic inequalities and policy making. pnas Nexus, 3(6), pgae191*.

Chan-Olmsted, S. M. (2019). A review of artificial intelligence adoptions in the media industry. *International journal on media management*, *21*(3-4), 193-215.

Cools, H., & Diakopoulos, N. (2024). Uses of Generative AI in the Newsroom: Mapping Journalists' Perceptions of Perils and Possibilities. *Journalism Practice*, 1–19. https://doi.org/10.1080/17512786.2024.2394558

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of management review*, *14*(4), 532-550.

Fang, X., Che, S., Mao, M., Zhang, H., Zhao, M., & Zhao, X. (2024). Bias of AI-generated content: an examination of news produced by large language models. *Scientific Reports*, *14*(1), 5224.

Gondwe, G. (2023). CHATGPT and the Global South: how are journalists in sub-Saharan Africa engaging with generative AI?. *Online Media and Global Communication*, *2*(2), 228-249.

Gregory, J. (2017). Press Association wins Google grant to run news service written by computers. *The Guardian*, *6*.

Gruzd, A., Staves, K., & Wilk, A. (2012). Connected scholars: Examining the role of social media in research practices of faculty using the UTAUT model. *Computers in Human Behavior*, *28*(6), 2340-2350.

Guardian staff and agencies. (2024). *OpenAI and Wall Street Journal owner News Corp sign content deal. The Guardian.*

Guest, G., MacQueen, K. M., & Namey, E. E. (2012). Introduction to applied thematic analysis. *Applied thematic analysis*, *3*(20), 1-21.

Guzman A. L., Lewis S. C. (2024). What generative AI means for the media industries, and why it matters to study the collective consequences for advertising, journalism, and public relations. *Emerging Media*. Advance online publication. https://doi.org/10.1177/27523543241289239

Herremans, D. (2021). aiSTROM–A roadmap for developing a successful AI strategy. *IEEE Access*, *9*, 155826-155838.

Hooshmand, M., & Adamiyan, M. (2022). A sociological study of Internet dependence due to peer communication (Case study of high school students in districts 2 and 3 of education in Mashhad). *Sociological Studies of Youth*, *5*(47), 79.

Horne, B. D., Nevo, D., O'Donovan, J., Cho, J. H., & Adalı, S. (2019, July). Rating reliability and bias in news articles: Does AI assistance help everyone? In *Proceedings of the international AAAI conference on web and social media* (Vol. 13, pp. 247-256).

Kieslich, K., Diakopoulos, N., & Helberger, N. (2024). Anticipating impacts: using large-scale scenario-writing to explore diverse implications of generative AI in the news environment. *AI and Ethics*, 1-23.

Magaldi, D., & Berler, M. (2020). Semi-structured interviews. *Encyclopedia of personality and individual differences*, 4825-4830.

Marchewka, J. T., & Kostiwa, K. (2007). An application of the UTAUT model for understanding student perceptions using course management software. *Communications of the IIMA*, *7*(2), 10.

Mikalef, P., & Gupta, M. (2021). Artificial intelligence capability: Conceptualization, measurement calibration, and empirical study on its impact on organizational creativity and firm performance. *Information & management*, *58*(3), 103434.

Miller, D. C., & Salkind, N. J. (2002). *Handbook of research design and social measurement*. Sage.

Møller, L. A., Skovsgaard, M., & de Vreese, C. (2024a). Reinforce, readjust, reclaim: How artificial intelligence impacts journalism's professional claim. *Journalism*, 14648849241269300.

Møller, L. A., van Dalen, A., & Skovsgaard, M. (2024b). A Little of that Human Touch: How Regular Journalists Redefine Their Expertise in the Face of Artificial Intelligence. *Journalism Studies*, *26*(1), 84–100. https://doi.org/10.1080/1461670X.2024.2412212

Muhammed, S., & Zaim, H. (2020). Peer knowledge sharing and organizational performance: the role of leadership support and knowledge management success. *Journal of knowledge management*, *24*(10), 2455-2489.

Opdahl, A. L., Tessem, B., Dang-Nguyen, D. T., Motta, E., Setty, V., Throndsen, E., ... & Trattner, C. (2023). Trustworthy journalism through AI. *Data & Knowledge Engineering*, *146*, 102182.

Patel, S. (2024). As tech firms prioritize AI in news dealings, other deals get cut. *The Information*.

Pinto, M. C., & Barbosa, S. O. (2024). Artificial Intelligence (AI) in Brazilian Digital Journalism: Historical Context and Innovative Processes. *Journalism and Media*, *5*(1), 325-341.

Potoski, M., & Callery, P. J. (2018). Peer communication improves environmental employee engagement programs: Evidence from a quasi-experimental field study. *Journal of Cleaner production*, *172*, 1486-1500.

Qin, Y., & Men, L. R. (2019). Exploring negative peer communication of companies on social media and its impact on organization-public relationships. *Public Relations Review*, *45*(4), 101795.

Quinonez, C., & Meij, E. (2024). A new era of AI-assisted journalism at Bloomberg. *AI Magazine*.

Rajaraman, V. (2014). JohnMcCarthy—Father of artificial intelligence. *Resonance*, *19*, 198-207.

Reddy, S. (2024). Generative AI in healthcare: an implementation science informed translational path on application, integration and governance. *Implementation Science*, *19*(1), 27.

Rempel, H. G., & Mellinger, M. (2015). Bibliographic management tool adoption and use a qualitative research study using the UTAUT model. *Reference & User Services Quarterly*, *54*(4), 43-53.

Saunders, M. N., & Townsend, K. (2016). Reporting and justifying the number of interview participants in organization and workplace research. *British Journal of Management*, *27*(4), 836-852.

Simon, F. M. (2022). Uneasy bedfellows: AI in the news, platform companies and the issue of journalistic autonomy. *Digital Journalism, 10*(10), 1832–1854. https://doi.org/10.1080/21670811.2022.2063150

Simon, F. M. (2024). Artificial Intelligence in the News: How AI Retools, Rationalizes, and Reshapes Journalism and the Public Arena.

Venkatesh, V. (2022). Adoption and use of AI tools: a research agenda grounded in UTAUT. *Annals of Operations Research*, *308*(1), 641-652.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.

Wang, X., Yu, C., & Wei, Y. (2012). Social media peer communication and impacts on purchase intentions: A consumer socialization framework. *Journal of interactive marketing*, *26*(4), 198-208.

WM Verhoeven, J., & Thøis Madsen, V. (2022). Active employee communication roles in organizations: A framework for understanding and discussing communication role expectations. *International Journal of Strategic Communication*, *16*(1), 91-110.

Contact email: tamdnt@uef.edu.vn

Designing an Immersive VR Tool for Inclusive-Classroom Simulation With ASD Students

Jakkarin Thepvong, Chulalongkorn University, Thailand

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Inclusive education emphasizes the right of every child to receive quality education within an environment that respects and accommodates diverse backgrounds, including culture, gender, language, and abilities (Savolainen et al., 2011). However, many preschool teachers report feeling inadequately prepared to address the needs of students with disabilities, particularly in classroom management (Sukbunpant et al., 2013; Amornpaisarnloet & Arthur-Kelly, 2023). Effective classroom management is crucial for fostering academic and socio-emotional learning, especially in inclusive settings where behavioral challenges, such as those presented by students with autism spectrum disorder (ASD), can arise (Evertson & Weinstein, 2006). This study explores the development of an immersive virtual reality (VR) tool, the Inclusive Classroom Simulation (ICS), designed to enhance pre-service teachers' skills in managing inclusive classrooms. The results from the first phase of the study provided insights and requirements for designing the ICS prototype, which were validated in the second phase through testing with two user groups: lecturers and students. Surveys indicated positive feedback regarding the prototype's effectiveness, confirming its viability for further research.

Keywords: Autism, VR, Immersive, Inclusive Education

iafor
The International Academic Forum
www.iafor.org

Introduction

Inclusive education is founded on the premise that every child, irrespective of their background, can receive education in an inclusive environment that accommodates their culture, gender, language, and abilities (Savolainen et al., 2011). The challenge of inclusion in the future pertains to how students with disabilities and special education needs can be accommodated in mainstream schools and classrooms (Ferguson, 2008).

In Thailand, as with many other nations, the movement towards inclusive education policies has gained significant importance (Vorapanya & Dunlap, 2012). This is due to the Education Provision for People with Disabilities Act becoming law in 2008, which mandates the inclusion of students with special needs in mainstream schools. However, most of the preschool teachers perceived themselves as lacking adequate knowledge and skills in special education (Sukbunpant et al., 2013). Moreover, most general teachers and special education teachers in special schools reported concerns that they had insufficient in-service and pre-service preparation to deal with most behavior problems and the training they received to be very highly theoretical and not sufficiently practical (Amornpaisarnloet & Arthur-Kelly, 2023). It is evident that there is a need to support the preschool teachers in enhancing their skills and knowledge in inclusive classroom education which this study intends to explore the way to support and one of the important skills in inclusive education is classroom management.

Classroom management encompasses a range of strategies that teachers employ to foster an environment that facilitates academic and socio-emotional learning (Evertson & Weinstein, 2006). Managing student behavior (in classroom) is a key aspect of a teacher's professional identity (McCormick & Shi, 1999). Failure in managing behavioral issues of student in classroom can lead to teacher burnout, stress, and job dissatisfaction (Evertson & Weinstein, 2006). One of the primary challenges in managing a classroom is addressing disruptive student behavior, especially in inclusive classrooms. Research has indicated that children with disabilities are more likely to exhibit behavioral problems compared to their typically developing peers (Ashburner et al., 2010). In inclusive classroom, there are frequently students with autism spectrum disorder (ASD) who may display externalizing behaviors, such as aggression, non-compliance, and disruptiveness, as well as internalizing issues such as anxiety and depression (Fenning et al., 2018).

Classroom simulation in virtual reality is a promising tool for classroom management training as previous study has shown the effectiveness of the technology (Dalgarno et al., 2016; Ferry et al., 2006; Lugrin et al., 2016). It can provide a valuable means of enhancing teacher education and practice, facilitating a smoother transition for pre-service teachers from education to practical experience. By immersing themselves in a secure virtual environment, pre-service teachers can gain rich learning experiences before taking on full responsibility for a real classroom (Rayner & Fluck, 2014; Theelen et al., 2019). There are different levels of immersion in virtual reality, it can be stated that the greater the immersion of the system, the higher the probability of the user becoming psychologically involved in the virtual task being performed (Cummings & Bailenson, 2016).

The goal of this study is to develop an efficient tool for educators to use in training pre-service teachers about inclusive classroom management by using immersive virtual reality technology, called Inclusive Classroom Simulation (ICS).

Research Objectives

1. To define the requirements for designing "Inclusive-Classroom Simulation" (ICS)
2. To design and evaluate the prototype of ICS

Research Questions

1. What are the requirements for designing the ICS?
2. How can one develop a design prototype for "Inclusive-Classroom Simulation" (ICS) to meet potential users' needs?

Theoretical Background

Inclusive Education and Autism Spectrum Disorder

Inclusive education is founded on the premise that every child, irrespective of their background, can receive education in an inclusive environment that accommodates their culture, gender, language, and abilities (Savolainen et al., 2011). By providing equal educational opportunities to all students, inclusive education aims to ensure that every child can achieve their potential in a school setting. Empirical evidence has shown that inclusive education can be effective in fostering academic and social development in children (Loreman et al., 2007) and is recognized as a fundamental human right that forms the basis for a just and equitable society (Forlin, 2013).

In Thailand, as with many other nations, the movement towards inclusive education policies has gained significant importance (Vorapanya & Dunlap, 2012). This is due to the Education Provision for People with Disabilities Act becoming law in 2008, which mandates the inclusion of students with special needs in mainstream schools. The Act establishes that inclusive education must be one of the service delivery options for the education of people with disabilities, and it is the right of those with disabilities to be included at every level of the educational system in all its forms. It is also illegal for schools to refuse admission to students with disabilities, and they must be provided with an Individual Educational Plan that is updated at least once a year (Rajkijjanubaksa, 2008).

Previous studies have revealed that despite the implementation of educational reforms, there are still limitations in effectively supporting students with special needs in Thailand (Tantixalerm, 2014, July). One of the main challenges is the shortage of qualified special education teachers in the public education system, which has become increasingly problematic as the number of students with invisible disabilities continues to rise (Andrade, 2022).

During childhood, individuals with ASD may exhibit restricted and repetitive patterns of behavior, interests, or activities. These may include stereotyped or repetitive motor movements, use of objects, or speech, insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior. Additionally, they may display highly restricted and fixated interests that are abnormal in intensity or focus. The DSM-V also notes that individuals with ASD may experience hyper- or hypo reactivity to sensory input or display an unusual interest in sensory aspects of the environment. These behaviors of ASD can be very challenging in classroom especially in the inclusive classroom setting.

Classroom Management Training and Virtual Reality Simulation

Classroom management skills are some of the most important skills preservice teachers learn in their teacher preparation programs, yet many novice teachers report they do not feel adequately prepared to manage a classroom (Scott, 2017). Even though, it is common knowledge that Learning classroom management strategies is more effective if the skills are learned in real-life situations (Speed et al., 2015), but there is also concern regarding learning with real students that it can cause the damage to student when teacher making mistake in real life situation and also the variety of situations for learning can be limited as well as it cannot repeat or getting real-time feedback for improvement.

Virtual classroom simulations based on computer technology can provide a valuable means of enhancing teacher education and practice, facilitating a smoother transition for pre-service teachers from education to practical experience. By immersing in a secure virtual environment, pre-service teachers can gain rich learning experiences before taking on full responsibility for a real classroom (Rayner & Fluck, 2014; Theelen et al., 2019). Classroom simulations are also a safe way to prepare preservice teachers for educational practice, as they enable them to practice their teaching role without the fear of making mistakes in front of real students (Rayner & Fluck, 2014).

Classroom simulation in virtual reality is a promising tool for classroom management training as previous study has shown the effectiveness of the technology such as ClassSim (Ferry et al., 2006), SimSchool (Collum et al., 2020), TeachLive (Dieker et al., 2017), SimInClass (Kelleci & Aksoy, 2021), IVT-T (Delamarre et al., 2017) or Breaking Bad Behavior 3B (Lugrin et al., 2016) and The VirtualPREX Classroom Simulation (Dalgarno et al., 2016).

While researchers have explored the use of virtual reality classroom simulations for training in classroom management, little research has specifically focused on the use of this tool for training in inclusive education classroom management especially for student with ASD. This study aims to address this gap in the literature.

Methodology

Research Framework

The study will have 2 phases. The 1st phase of the study will utilize a qualitative research design to interview special educators with expertise in special education to inform the design of the VR tool. This phase will utilize purposive sampling to select participants who have relevant experience with the education of students with disabilities. The data collected through focus group interviews will be analyzed thematically to identify key features that should be included in the ICS. And the 2nd phase will be testing system usability for the ICS prototype.

Phase 1: Find Requirements. The study uses a semi-structured interview method to interview 9 educators (Hennink & Kaiser, 2022) who have prior experience with teaching ASD students in inclusive classroom for at least 5 years. The participants were selected from these groups: K-12 teachers in public schools in Bangkok, University teacher in education department. All participants must have at least 5 years' experience teaching in the classroom with ASD students or at least 5 years' experience teaching student-teacher on a special education course. The information from the interview saturated at around 8 participants. The

participants are from the Department of Special Education Chulalongkorn University (2), Thepsatree Rajabhat University (1), Chiang Mai Rajabhat University (1), Wat Racha School (2), Wat Pratum Kongka (2) and The Village School (1). The interview topics was about the teacher's experience of managing inclusive classroom with ASD students and the requirement for designing ICS. Below are interview topics and questions.

1. Current Challenges: What are some of the biggest challenges that special educators face when teaching in inclusive classrooms with ASD students?
2. Learning Objectives: What are the specific learning objectives that special educators aim to achieve when working with special education students in inclusive classrooms?
3. Existing Teaching Strategies: What strategies do special educators currently use to teach special education students in inclusive classrooms?
4. Ideal VR Tool: If you could design an ideal VR tool for special educators in inclusive classrooms, what features would it have? What specific challenges would it address? What learning objectives would it help achieve?
5. VR Experience Design: What would be the most effective way to design the VR experience for special educators in inclusive classrooms with ASD students? How should the tool be structured, and what types of interactions should be included?

After the interview, the information gathered from the interviews was analyzed. The researcher found the pattern of the ASD student in K6-12 education and categorized as follows.

Disruptive Behavior Type of ASD in Inclusive Classroom	No. of Participant Mentioned the Behavior	ICS-Behavior Function
Violence (Hitting others, Violent behavior, etc.)	3	High Disruption
Attention Seeking (Raise Hand repeatedly, Making loud noises, etc.)	9	Moderate Disruption
Non- participate. (Not participate in the task or topic, slow learning curve)	5	Low Disruption

It shows that most behavioral problems found in K6-12 ASD-students is attention seeking behaviors like raising hands repeatedly to get teacher's attention or to making small noises in the classroom while teacher was teaching. The other two types of behaviors like violence and non-participation are less common. From this finding, we can categorize disruptive-behavior functions used in ICS as High disruption, Moderate disruption, Low disruption.

Phase 2: Prototype Evaluation. This phase of study, the author will be testing a developed prototype of the ICS by using the requirements gathered in phase 1 to evaluate the usability of the prototype.

This study will survey educators who have relevant experience with the education of students with disabilities. The first group of participants are lecturers who teach in university level

special-education courses at (Chulalongkorn University) or K-12 teachers teaching in inclusive schools (Wat Racha School, Wat Pratum Kong ka School and The Village school) N=27. The second group of participants are university students who are studying in a special education course (from Chulalongkorn University), N=38.

Instrument Design. The first part of the survey will be a video introduction to the ICS. We decided to capture the screen of the ICS-prototype usage and then record the announcer voice, explaining the purpose of the ICS and how to use the ICS. The video length is 2 minutes, which the participant must watch before taking the survey.

Figure 1: Demonstration Video of ICS

Video Link: https://youtu.be/IUgHOh_uS18

The second part of the survey is the system usability scale which we translate and adapt to fit the purpose of this study. The system usability scale (SUS) has been proved to have a good level of usability in teacher education (Vlachogianni & Tselios, 2022).

When a SUS is used, participants are asked to score the following 10 items with one of five responses that range from Strongly Agree to Strongly disagree:

1. I think that I would like to use this system frequently.
2. I found the system unnecessarily complex.
3. I thought the system was easy to use.
4. I think that I would need the support of a technical person to be able to use this system.
5. I found the various functions in this system were well integrated.
6. I thought there was too much inconsistency in this system.
7. I would imagine that most people would learn to use this system very quickly.
8. I found the system very cumbersome to use.
9. I felt very confident using the system.
10. I needed to learn a lot of things before I could get going with this system.

The control variables are demographic and experience using virtual reality.

Result

This chapter presents data analysis results regarding descriptive statistics of survey respondents and examined variables.

Results of Descriptive Statistics on Survey Respondents.

Table 1: Samples' Demographic Characteristics - Lecturer's Group

Demographic - Lecturer's Group	Frequency	Percentages
Sex		
Male	6	22.2
Female	21	77.7
Age		
Less than 25 Years	0	
25-35 Years	15	66.6
36-45 Years	9	33.3
46-55 Years	0	
More than 55 Years	0	
Means (sd)	30	
Lowest - highest	25-45	
Experience with Autism		
<5 Years	10	37.0
5-10 Years	14	51.8
>10 Years	3	11.1

Table 2: Samples' Demographic Characteristics - Student's Group

Demographic - Student's Group	Frequency	Percentages
Sex		
Male	18	47.3
Female	20	52.6
Age		
Less than 25 Years	38	100
25-35 Years	0	
36-45 Years	0	
46-55 Years	0	
More than 55 Years	0	
Means (sd)	25	
Lowest - highest	25-25	
Experience with Autism		
<5 Years	31	81.5
5-10 Years	5	13.1
>10 Years	2	5.2

The online survey was conducted between December 1 and December 25, 2023. More than 67 respondents answered the questionnaires; however, after filtering invalid questionnaires, 65 valid questionnaires were analyzed by SPSS in this study.

Table 1 shows frequency and percentage of respondents based on their demographic characteristics of Lecturer Group. As for gender, there are more female (77%) than male

(22%) respondents. In terms of age, respondents' age range is from 25 to 45. Most of the respondents are 25–35 years old (66%), followed by 36–45 years old (33%), respectively. As for experience with autism, most of the respondents have 5-10 years' experience with autism (51.8%), followed by less than 5 years' experience (37.0%), and only 11% have more than 10-year experience, respectively. In terms of educational level, most respondents in this study are master's degree holders (56%), followed by bachelor's degree holder (22%), and Doctoral degree holder (12%).

As for the student group, table 2 showed frequency and percentage of respondents based on their demographic characteristics of the student group. As for gender, there are more female (52.6%) than male (47.3%) respondents. In terms of age, respondents' age range is less than 25 years old (100%). As for experience with autism, many of the respondents in this group have less than 5-year experience with autism (81.5%), followed by 5-10 years' experience (13.1%), and only 5% have more than 10-year experience, with autism.

Results of Descriptive Statistics on Examined Variables

As written in chapter 3, the scales with Cronbach's Alpha coefficient (higher than 0.69) were tested to conclude whether the measurement scales are reliable and to what extent the items are related. Table 4.3 shows results of descriptive characteristics on the examined variables, and the reliability of their measurement.

Table 3: Samples' SUS Scale Compares Between Two Groups

	Lecturer's group (N=27)		Student's group (N=38)	
	M	SD	M	SD
System usability scale (SUS)				
SUS1	3.24	0.4989	3.50	0.5289
SUS2*	2.67	0.5653	2.77	0.4753
SUS3	3.37	0.5621	3.42	0.5221
SUS4*	2.81	0.5626	2.88	0.5111
SUS5	3.24	0.5090	3.54	0.5320
SUS6*	2.89	0.5744	2.92	0.5624
SUS7	3.32	0.6421	3.46	0.5214
SUS8*	2.89	0.4726	2.73	0.5626
SUS9	3.24	0.5390	3.12	0.4988
SUS10*	3.43	0.5254	3.19	0.5444
Reliability (Cronbach alpha)	0.851		0.862	

Note: * is a reverse item

Based on the above table, it was found that the observed items' mean values are above 3.0 in both groups in item SUS1,3,5,7,9 which are not reverse items. In the reverse items' group which are SUS2,4,6,8,10 the means are mostly below 3.0 except item no. 10 which will be discussed later. The standard deviation in all items is less than 1.0. Besides, the scale has Cronbach's Alpha coefficients over 0.7 and can be considered appropriate (George &

Mallery, 2003). These scales are appropriate for this study. It provides the mostly positive result for the proposed ICS prototype.

Discussions and Conclusion

This chapter provides discussions of research findings including discussions relating to previous studies, applied theories, and the researcher's expectations. Besides, it also points out the limitations of the research and offers recommendations for further research and practical applications of the research.

The result from the first phase of this study gives ideas and requirements to design the prototype of ICS. The key findings of the first phase were used to define functions in ICS and then tested in the second phase of the study with the two groups of users, lecturer and student. The finding from the survey showed that the proposed prototype of ICS from the video has positive results from both groups of users. This proved that the prototype of ICS used in the study can be used in the next phase of research.

The statistical result of the survey showed both groups have higher scores in items about usefulness, intention to use as well as the well-function of ICS. Although, both groups scored less on confidence in using the ICS. This could be interpreted that both groups believe in the usefulness of the ICS but feel less confident in using it. It might be because VR technology is not well integrated into the education-world. Maybe people in education are still not familiar with technology but understand that technology can be useful. Age might influence the intention to use of ICS as well, as student group mostly score higher than the lecturer group. It might be because the younger generation, the student's group means ages is less than 25 years old, might have more familiar with the VR technology than the lecturer's group that average group's age is higher than 30 years old.

In reversed item SUS10, both groups show negative result on this item which is about the feeling of need to learn more before being able to use ICS. This could be the result of the length of video used in the survey is too short. The video is around two minutes long and it might not be enough to explain in detail every function of the ICS. Furthermore, video is very limited to display the immersive for virtual reality head-mouth display, therefore the missing information is unavoidable when using video as a demonstration for this survey. Live demonstration might be better for testing the system usability of the ICS.

In conclusion, this study shows overall positive results for the design and usability of ICS. Although, it needs furthermore live-demonstration and live-testing to gain more insight from both groups of users before it can be developed into a tool for teacher training in inclusive classroom management with autistic students.

Limitations

While our findings offer significant insights into research on virtual reality technology and autism, this study has several limitations, which could be recognized and addressed. First, it is worth noting that our results only represent a small group of participants in the Bangkok area and cannot be generalized to the greater population of the country. Our participants have different backgrounds concerning autism knowledge in classroom management; thus, their background knowledge could influence their empathy toward autistic students and thus should be taken into consideration for future studies.

Second, it must be noted that our results derived from only one small survey that focuses on finding the requirements and then using the requirement to design a virtual reality simulation tool for teacher's training (which we call ICS). Future research can extend our findings by comparatively investigating whether different training methods using a traditional technique (e.g., lectures, seminars) as well as virtual reality technology will have the same results.

Third, as our results are based only on the underlying process of classroom management for students with autism, it remains to be seen whether the results would be the same for other vulnerable groups of students. Future studies examining the effectiveness of VR simulation intervention on classroom management for other stigmatized groups such as physical disability or other learning disability can beneficially extend our research findings.

Finally, given the limited game length, designed situations in our VR intervention tool do not cover all types of autism nor do they cover all characteristics of ASD. Given the fact that there is no one intervention tool that works for all spectrum of student with ASD, more innovation such as more simulation development efforts are considerably needed for further improvement.

References

Amornpaisarnloet, W., & Arthur-Kelly, M. (2023). Perceived competencies and concerns of Thai general and special education teachers towards the behavior problems of their students. *International Journal of Inclusive Education*, 1-16.

Andrade, S. W. (2022). Developing Inclusion: A Participatory Action Research of Primary Education for Students with Invisible Disabilities in Thailand.

Ashburner, J., Ziviani, J., & Rodger, S. (2010). Surviving in the mainstream: Capacity of children with autism spectrum disorders to perform academically and regulate their emotions and behavior at school. *Research in Autism Spectrum Disorders, 4*(1), 18-27.

Collum, D., Christensen, R., Delicath, T., & Knezek, G. (2020, April). Measuring changes in educator bias in a simulated learning environment. In Society for Information Technology & Teacher Education International Conference (pp. 507-513). Association for the Advancement of Computing in Education (AACE).

Cummings, J. J., & Bailenson, J. N. (2016). How immersive is enough? A meta-analysis of the effect of immersive technology on user presence. *Media psychology*, *19*(2), 272-309.

Dalgarno, B., Gregory, S., Knox, V., & Reiners, T. (2016). Practising teaching using virtual classroom role plays. *Australian Journal of Teacher Education (Online), 41*(1), 126-154.

Delamarre, A. P., Buche, C., Polceanu, M., Lunn, S., Ruiz, G., Bolivar, S., ... & Lisetti, C. L. (2017, May). An Interactive Virtual Training (IVT) Simulation for Early Career Teachers to Practice in 3D Classrooms with Student Avatars. In FLAIRS Conference (pp. 400-403).

Dieker, L. A., Hughes, C. E., Hynes, M. C., & Straub, C. (2017). Using simulated virtual environments to improve teacher performance. *School-University Partnerships, 10*(3), 62-81.

Evertson, C. M., & Weinstein, C. S. (2006). Classroom management as a field of inquiry. *Handbook of classroom management: Research, practice, and contemporary issues, 3*(1), 16.

Fenning, R. M., Baker, J. K., & Moffitt, J. (2018). Intrinsic and extrinsic predictors of emotion regulation in children with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 48*, 3858-3870.

Ferguson, D. L. (2008). International trends in inclusive education: The continuing challenge to teach each one and everyone. *European Journal of special needs education, 23*(2), 109-120.

Ferry, B., Kervin, L., Puglisi, S., Cambourne, B., Turbill, J., Jonassen, D., & Hedberg, J. (2006). Online classroom simulation: Using a virtual classroom to support pre-service teacher thinking. In Authentic learning environments in higher education (pp. 135-161). IGI Global.

Forlin, C. (2013). Changing paradigms and future directions for implementing inclusive education in developing countries. *Asian Journal of Inclusive Education, 1*(2), 19-31.

Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: An introduction*. Longman Publishing.

Geving, A. M. (2007). Identifying the types of student and teacher behaviours associated with teacher stress. *Teaching and Teacher Education, 23*(5), 624-640.

Hall, M. P. Krueger, RA. & Casey, MA. (2000). *Focus groups: a practical guide for applied research*. Thousand Oaks, Calif.: Sage Publications.

Hennink, M., & Kaiser, B. N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social science & medicine, 292*, 114523.

Houghton, S., Wheldall, K., & Merrett, F. (1988). Classroom behaviour problems which secondary school teachers say they find most troublesome. *British Educational Research Journal, 14*(3), 297-312.

Huntly, H. (2008). Teachers' work: Beginning teachers' conceptions of competence. *The Australian Educational Researcher, 35*(1), 125-145.

Kelleci, Ö., & Aksoy, N. C. (2021). Using game-based virtual classroom simulation in teacher training: User experience research. *Simulation & Gaming, 52*(2), 204-225.

Knezek, G., Fisser, P., Gibson, D., Christensen, R., & Tyler-Wood, T. (2012). SimSchool: Research outcomes from simulated classrooms. In Society for information technology & teacher education international conference 2012.

Kumar, R. (1996). *Research Methodology: A Step By Step Guide for Beginners*. Longman.

Leedy, P., & Ormond, JE. (2001). Practical Research: Planning and Design.

Little, S. G., & Akin-Little, A. (2008). Psychology's contributions to classroom management. *Psychology in the Schools, 45*(3), 227-234.

Loomis, J. M., Blascovich, J. J., & Beall, A. C. (1999). Immersive virtual environment technology as a basic research tool in psychology. *Behavior research methods, instruments, & computers, 31*(4), 557-564.

Loreman, T., Earle, C., Sharma, U., & Forlin, C. (2007). The Development of an Instrument for Measuring Pre-Service Teachers' Sentiments, Attitudes, and Concerns about Inclusive Education. *International Journal of Special Education, 22*(1), 150-159.

Lugrin, J. L., Latoschik, M. E., Habel, M., Roth, D., Seufert, C., & Grafe, S. (2016). Breaking bad behaviors: A new tool for learning classroom management using virtual reality. *Frontiers in ICT, 3*, 26.

McCormick, J., & Shi, G. (1999). Teachers' attributions of responsibility for their occupational stress in the People's Republic of China and Australia. *British Journal of Educational Psychology, 69*(3), 393-407.

Rajkijjanubaksa. (2008). Pra ra ja bun yat karn jud karn suk sa pi set [The Education Provision for People with Disabilities Act]. Bangkok: Thai Government Printing Office.

Rayner, C., & Fluck, A. (2014). Pre-service teachers' perceptions of simSchool as preparation for inclusive education: a pilot study. *Asia-Pacific Journal of Teacher Education*, *42*(3), 212-227.

Sachs, G. (2018). Goldman Sachs. Dreaming With BRICs: The Path to, 2050.

Savolainen, H., Engelbrecht, P., Nel, M., & Malinen, O. P. (2011). Understanding teachers' attitudes and self-efficacy in inclusive education: implications for pre-service and in-service teacher education. *European Journal of Special Needs Education*, *27*(1), 51–68.

Scott, T. M. (2017). Training classroom management with preservice special education teachers: Special education challenges in a general education world. *Teacher Education and Special Education, 40*(2), 97-101.

Sharma, U., & Jacobs, D. K. (2016). Predicting in-service educators' intentions to teach in inclusive classrooms in India and Australia. *Teaching and Teacher Education, 55*, 13-23.

Sharma, U., Sokal, L., Wang, M., & Loreman, T. (2021). Measuring the use of inclusive practices among pre-service educators: A multi-national study. *Teaching and Teacher Education, 107*, 103506.

Speed, S. A., Bradley, E., & Garland, K. V. (2015). Teaching adult learner characteristics and facilitation strategies through simulation-based practice. *Journal of Educational Technology Systems, 44*(2), 203-229.

Sukbunpant, S., Arthur-Kelly, M., & Dempsey, I. (2013). Thai preschool teachers' views about inclusive education for young children with disabilities. *International Journal of Inclusive Education, 17*(10), 1106-1118.

Tantixalerm, C. (2014, July). Effects of Behavior Support Intervention in a Thai Inclusive Classroom. In Proceedings of Braga 2014 Embracing Inclusive Approaches for Children and Youth with Special Education Needs Conference (p. 380).

Theelen, H., Van den Beemt, A., & den Brok, P. (2019). Classroom simulations in teacher education to support preservice teachers' interpersonal competence: A systematic literature review. *Computers & Education, 129*, 14-26.

Vlachogianni, P., & Tselios, N. (2022). Perceived usability evaluation of educational technology using the System Usability Scale (SUS): A systematic review. *Journal of Research on Technology in Education*, *54*(3), 392-409.

Vorapanya, S., & Dunlap, D. (2012). Inclusive education in Thailand: practices and challenges. *International Journal of Inclusive Education*, *18*(10), 1014–1028.

Wan, W. H., & Lam, A. H. Y. (2019). The effectiveness of virtual reality-based simulation in health professions education relating to mental illness: A literature review. *Health, 11*(6), 646-660.

Contact email: jakkarin12@gmail.com

Social Cohesion in Education: The Benefits of Embedding Art and Design in a Learning Environment

Julie Brown, Cardiff Metropolitan University, United Kingdom

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
This paper demonstrates the importance of art and design in education and how it has a positive impact on social cohesion and socio-economic status. It examines how art can be used as part of education, to equip learners with social skills and how design can help in cognitive development (Karbasi-Amel et al., 2023). Its particular importance in areas of low socio-economic status (SES), addresses how it can ameliorate preschool learners and those in education, in these and other geographical areas. Social influences shape who we are, is learned from a young age (Heckman, 2013, p. 26), is embedded in schools (Bar-Tal, 2000, xii) and is of importance for educating teenage learners (Goodyear, 2018/2019 p. 95; Welsh Government, 2022). Utilising Art and design skills can have a positive impact in educational development and can contribute to better school attendance, aid socio-economic development and improve wellbeing. Whilst there are variations on the term 'social cohesion' (Chan et al., 2006), it is used here to describe a sense of belonging and interpersonal connection within society. Social cohesion is a critical societal issue in expeditious globalization (Green et al., 2006, p. 1) and is fundamental both physiologically and psychologically (Sandstrom & Dunn, 2014) however it is exacerbated by detrimental socio-economic conditions (Crowe et al., 2021). This paper argues that art and design can be successfully used, to enable not only the development of social education but is of significant benefit in learning STEM subjects as part of the school curriculum (Ng & Chan, 2019).

Keywords: Art, Design, Education, Policy, Health, Socio-Economic

iafor
The International Academic Forum
www.iafor.org

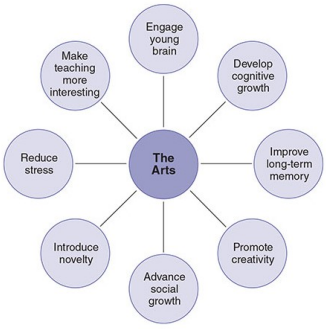
Introduction

Social cohesion, where limited or absent, is a contributing factor for worsening health and is exacerbated by detrimental socio-economic conditions (Crowe et al., 2021). Areas of South Wales, where low socio-economic status (SES) is evident, have prevalent health issues, indicating a higher proportion of disabled people than England (Office for National Statistics, 2023). The health issue in these areas is recognised in policy making and there are key features in the Welsh National Curriculum (Welsh Government, 2022) to attempt to address this wide issue and aspects of social cohesion which can help develop skills for later education and life.

Our society is quickly changing in the face of rapid globalization (Green et al., 2006, p. 1), and people and communities are being negatively affected by digital influences, adding complications to life and contributing to poor health (Turkle, 2011, p. 17). Social influences shape who we are from a young age (Heckman, 2013, p. 26) and is of importance for educating teenage learners (Goodyear, 2018/2019, p. 95; Welsh Government, 2022). Equipping learners with tools to develop healthy physiological and psychological capabilities is an important part of learning throughout education and beyond. Whilst there are variations on the term 'social cohesion' (Chan et al, 2006), it is used in this paper to describe a sense of belonging and interpersonal connection within society.

Policy makers recognise the importance of social education, subjects in the Welsh National Curriculum Framework (Welsh Government, 2024) and offers a holistic approach in facilitating teaching in Welsh schools. Design methodologies could help determine paradigms of social education and cohesion in school environments and introduce interventions that can enable positive outcomes for learners across the curriculum.

Figure 1: The Diagram Illustrates the Reasons Why the Arts Should Remain Available for All Students at All Grade Levels



Source: Sousa and Pilecki (2018, p. 15)

"The arts develop . . . creativity, problem solving, critical thinking, communication, self-direction, initiative, and collaboration." (Sousa & Pilecki, 2018, p. 14)

Humans need the Arts as well as the Sciences. Teaching practices can use design methodologies to enable increased interaction amongst and between its learners therefore building social skills (Sanders & Stappers, 2008). The use of Art (Karbasi-Amel et al., 2023) and Design (Ng & Chan, 2019) can, respectively, equip learners in developing their social skills and aide in cognitive development in a STEM subject.

Figure 2: A Snapshot in Time of Traditional and Emerging Design Practices

The traditional design disciplines focus on the **designing of** 'products' ...	... while the emerging design disciplines focus on **designing for** a purpose
visual communication design	design for experiencing
interior space design	design for emotion
product design	design for interacting
information design	design for sustainability
architecture	design for serving
planning	design for transforming

Source: Sanders & Stappers (2008)

There is also evidence to suggest that whilst the teaching of social cohesion in schools is regarded as important, a much earlier intervention is needed, by the age of three (Heckman, 2013, p. 22), particularly in low socio-economic areas. Such learning developments are vital to help cope with the fast-paced world we live in today.

Art is just as important as the sciences. Humans need an objective view, provided by sciences and a subjective view, provided by the arts as they complement one another. Despite such advantages the art and music learning programs are the first to be either removed or reduced in the school curriculum; some private schools being the exception (Sousa & Pilecki, 2018). Aspects of social cohesion are recognised as important and feature as part of the school curriculum framework (Welsh Government, 2022). This framework is to some extent, non-prescriptive and offers potential for inconsistency in approach resulting in a potential variation in demographic learning outcomes.

This paper argues that Art and Design should be used to address social cohesion and other social/economic issues in schools and demonstrates their intrinsic benefit to learners in STEM related studies (Ng & Chan, 2019). The low socio-economic status (SES) of the South Wales Valleys (Public Health Wales, 2020) is aided from early interventions such as Flying Start, which helps improve attendance (Bandyopadhyay et al., 2023). Additionally, a more prescriptive approach in terms of embedding Art & Design in the Welsh National Curriculum would be conducive in improving health and socio-economic conditions in these areas.

Design Methodologies

Environment and Creative Learning

Disadvantaged families can gain from social and cognitive learning (Bandyopadhyay et al., 2023), and with lasting effect of success, if learning is continued in later education. However, life is more focused on cognitive tests (Heckman, 2013, p. 20, p. 26). Interventions in early childhood development are fundamental in engendering values and beliefs in family environments for a better chance of social and economic success in the future. Conversely, adverse early conditioning correlate with poor health and job performance, poor social function, disability to name but a few.

"Neglected young children often have persisting cognitive, socio-emotional and health problems." (Heckman, 2013, p. 22)

Figure 3: Abnormal Brain Development Following Sensory Neglect in Early Childhood

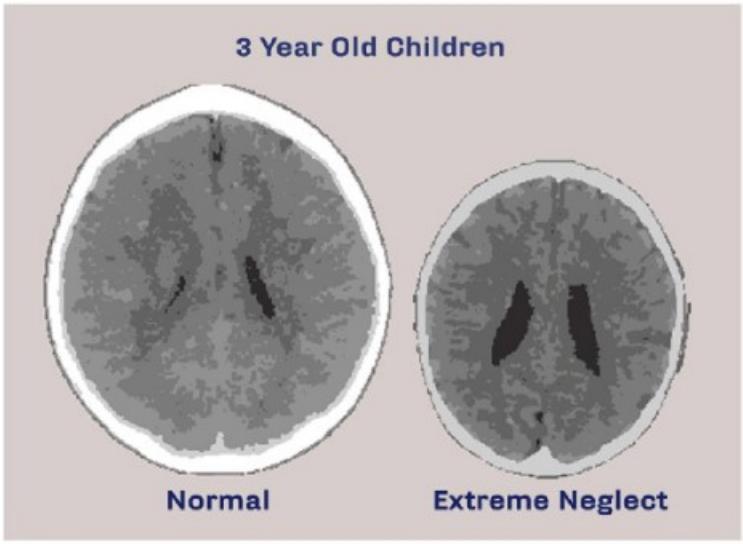


FIGURE 3: Abnormal brain development following sensory neglect in early childhood. The scan on the left is from a healthy three-year-old with an average head size (50th percentile). On the right is a scan from a three-year-old suffering from severe sensory-deprivation neglect. This child's brain is significantly smaller than the average (3rd percentile) and has enlarged ventricles and cortical atrophy. Source: B. D. Perry, "Childhood experience and the expression of genetic potential: what childhood neglect tells us about nature and nurture." *Brain and Mind* 3: 79-100, 2002.

Source: Heckman (2013)

Art can be of significant benefit to learners in early interventions: at-risk pre-school learners, who were exposed to the effects of arts enrichment on school readiness for 2 years, proved to have higher achievements than those who only attended for one year (Brown et al., 2010). Looking more locally, in Wales there is supporting evidence that early intervention programmes and policy changes could assist in the development of learners through the course of life and in reducing development inequalities (Bandyopadhyay et al., 2023).

As young learners may find it difficult to evince emotions, art interventions can help express thoughts and feelings in a safe non-verbal way. This explorative process helps young children discover organic ways to help them grow. Play therapy can enable young learners uncover their interests, learn self-discipline and of coping mechanisms to deal with stress. These can all help reduce learner behavioural problems which could otherwise manifest further in later education or indeed life (Karbasi-Amel et al., 2023). Successful play therapy and other art interventions in early childhood development can be augmented in later education. The continuation of such art and design methodologies are vital as part of ongoing development through to teenage years (Goodyear, 2018/2019, p. 95) encouraging creating thinkers and problem solvers in the face of rapid globalization (Green et al., 2006, p. 1). Using art-based subjects in secondary education can help achieve an increase in the learning of STEM based subjects (Ng & Chan, 2019). Using CAD as a tool to help in learning Mathematics not only did students learn about a STEM subject but there was also an improvement in terms of their spatial skills. This trans-disciplinary approach helps with more than just the core subject at hand. It is about problem solving in a more dynamic way rather than just learning by wrote. The real lesson is not only what is learned but what can be done with the learning as suggested by a quote by Henri Poincaré "*a Mathematician is like a writer who knows the grammar but not the ideas*" (Gray, 2012, p. 12). Thinking creatively, and in a more abstract way, can help with critical thinking skills. Art based subjects can also help with the long-term retention of the content of STEM related subjects (Hardiman et al., 2014) - significantly so with those who have the lowest reading ability – developing cognitive, social skills and

academic skills. Particularly beneficial to those in areas of Wales with low socio-economic status.

The arts have been demonstrated to have a positive impact on young and older children in a holistic way and can help provide greatest improvement with those having the lowest reading ability. Despite these significant benefits it is the poorer schools that cut their art budget (Gregory, 2017). As a result, it is the most vulnerable that miss out on building/enhancing their social and cognitive success in the education environment and for readiness for when they leave schools for employment and integration in society.

Health and Socio-Economic Aspects

Where social cohesion is limited, or even absent, it is a contributing factor for worsening health, exacerbated by detrimental socio-economic conditions (Crowe et al., 2021). According to the Office for National Statsitics (2023) the proportion of disabled people in Wales has reduced since 2011 however, when comparing with England (21.2%), the percentages are still comparatively high: at 24.6%, Neath Port Talbot and Blaenau Gwent have the highest proportion of disabled people then Merthyr Tydfil at 24.2%, and Rhondda Cynon Taff at 23.8%. These are valley communities and are commonly understood to be areas of low socio-economic status. There is also an increase in disparity between the least and most deprived areas which is also being seen in other parts of the world (Public Health Wales, 2020) - meaning more societal and health issues in the future unless there are earlier interventions.

Within socio-economically deprived areas is a disproportionate non-attendance issue at schools, when compared with England (Reid, 2009, p. 20). Attendance in early years education is a problem, and amongst other contributing factors, young children have poor access to play areas and local facilities (Bandyopadhyay et al., 2023). Non-attendance and lack of social spaces exasperates not only the problem of academic learning but of the social skills learned through organic play. Additionally, there is also an increase in teacher and student confidence when the arts are used in lessons (Cauldwell & Vaughan, 2012, p. 106). Increased art and design, lessons and the provision of an open play area within education environments can alleviate/offer a safe place to play but of course access is limited by design and inherent security.

Unfortunately, young children born and living in deprived areas are also at the greatest risk of developing health and societal issues in later life. When identities, values and sense of belonging are forming at an early age, a focus on education policy is beneficial in reducing lifetime inequalities (Heckman, 2013, p. 12). The more deprived areas in the South Wales Valleys are aided by early learning programs such as Flying Start (Bandyopadhyay et al., 2023) which help prepare younger children in readiness for their later education, received as part of The National Curriculum Framework for Wales, which attempts to tackle societal issues in a holistic way.

Education Framework for Wales

Emotional resilience, if not tackled early has implications in later life. However, there is a developmental gap in teenagers and issues with their emotional capability. Whilst teenagers may have a higher level of social capital, (Goodyear, 2018/2019, p. 123) they are perhaps not so physically connected because of the access to global information (Green et al., 2006, p. 1).

Additionally, they may lack social skills in face-to-face discussions to help them in daily life situations (Turkle, 2011).

Social cohesion is engendered firstly in family environments (Heckman, 2013, p. 26) and in schools (Bar-Tal, 2000, xii). Learning positive aspects of social cohesion is important from a very young age, through all education and in lifelong learning; this is recognized in policy making. As part of the Curriculum for Wales Framework (Welsh Government, 2024) congruent aspects of statutory guidance offers a consistent approach for schools and settings for children between three and sixteen years of age. Provision of this Framework is used along with health-related networks to enable those responsible in schools (and others) with useful tools to implement a holistic curriculum. However, those with such responsibility, are suggested to use local, cluster, regional and national level data (Welsh Government, 2022) which invites variation, as does individual teaching methods for learners (McGlashan, 2018). Despite the provision of twenty-seven mandatory policy statements that form part of the Framework, each school creates its own curriculum therefore highlighting a demographic variation in content.

Whilst the variation in a school's curriculum is not specifically addressed in this paper, there is an additional challenge in terms of budgetary constraints which can affect advantageous creative learning. The betterment of art and music programs across the holistic curriculum are sometimes lost because they are the first to be either removed or reduced; some private schools being the exception (Sousa & Pilecki, 2018). This is rather disquieting considering the social and academic gains to learners in socio-economic areas and of the confidence and variation it can provide to teachers (Cauldwell & Vaughan, 2012, p. 106). It isn't only through teaching in the classroom environment that learners can gain on aspects of social cohesion. Research by Sandstrom and Dunn (2014) suggests that there are psychological and physiological advantages in maintaining connections socially even if just peripheral. In such cases health has positively developed, both emotionally and socially, within a group of learners. By just sharing a space(s) can facilitate the cultivation of healthier individuals to the same extent as if a person was actively socially interacting with others. Sandstrom and Dunn's (2014) theory demonstrates the health-related benefits of being in a classroom even if an interaction by one or more is limited or indeed if there is none. Attendance at school is vital to continue learning and in developing skills for later education and beyond. Being socially engaged or present in a classroom appears to be beneficial but attendance is critical for ongoing social development. But are learners affected by the educational environments in which they learn? Whilst not focusing specifically on the design of school environments, activities that better social cohesion can be introduced to embed behaviors around identities, values, beliefs and sense of belonging. Opportunities may exist to engender wellbeing beyond the classroom and extend to parents/carers who influence their children (Heckman, 2013, p. 26) from a young age.

Improvements in physiological and psychological are evident when people connect socially. Beyond this there are additional advantages which are perhaps not so obvious – there is also a phenomenological link that is perhaps instrumental in feeling connection with others or places. This aspect is important in getting learners to attend school and for them and their parents to feel they have an invested bond of the path of the learner. What experiences could inspire learners to feel connected to schools and within their communities? Hilary Mantel (The Iron Maiden, 2020), suggests spiritual qualities could be just as salient as physical ones. Embroiled with beliefs, spiritual qualities can help people feel a connection with their environment. A welcoming space needs to extend beyond the classroom and give rise to a

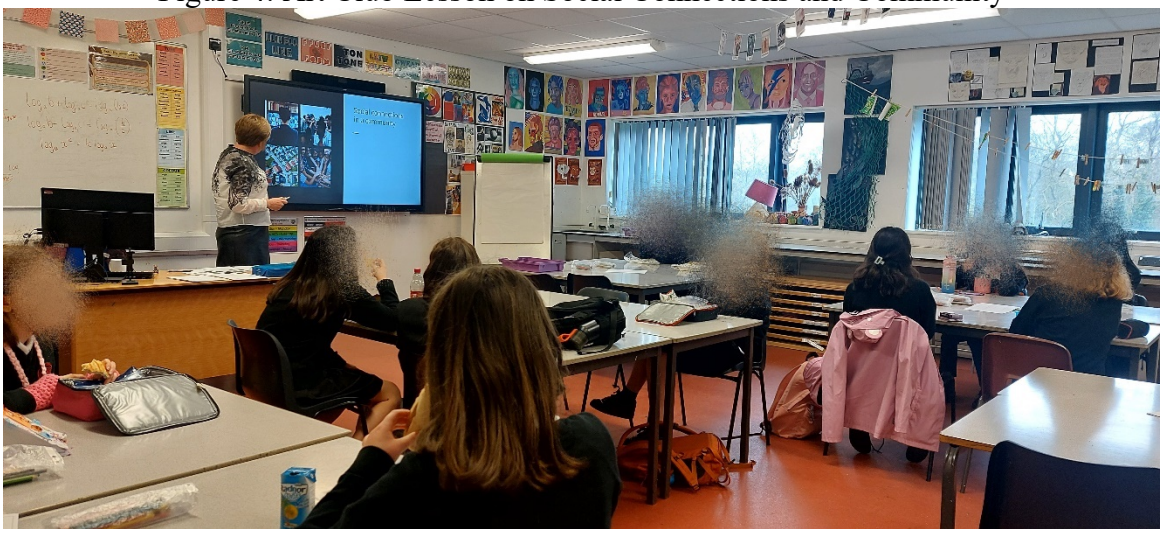
sense of togetherness and belonging and so ameliorate in development of social development. Perhaps this is particularly important at the school entrance. Such spaces could be used in creative ways to connect learners and their parents with schools. An example of Just one way where art and design can be of noteworthy advantage in educational development.

Theory and Practice

Creative Intervention to Educate Learners on Aspects of Social Cohesion

Having prior ethics approval, I taught pupils at a local comprehensive school in Cardiff, in its well-established art club. Using appropriate nomenclature, I addressed pupils from different year groups on aspects of social cohesion to raise awareness of the subject and to enable the creation of stories based on the theme. In a classroom setting I taught, two groups over two consecutive days. Years 7, 8 on day one and year 9 on the second; approximately 20 learners attended each day. Using the words "social connections" and "community" as a proxy for social cohesion, the pupils were asked to offer what each of the two statements meant to them before relatable examples were provided to enable further cognition. Following a presentation on creative media, techniques and a brainstorming session, the learners created storyboards on the theme. The issues relating to social cohesion in societies were not addressed.

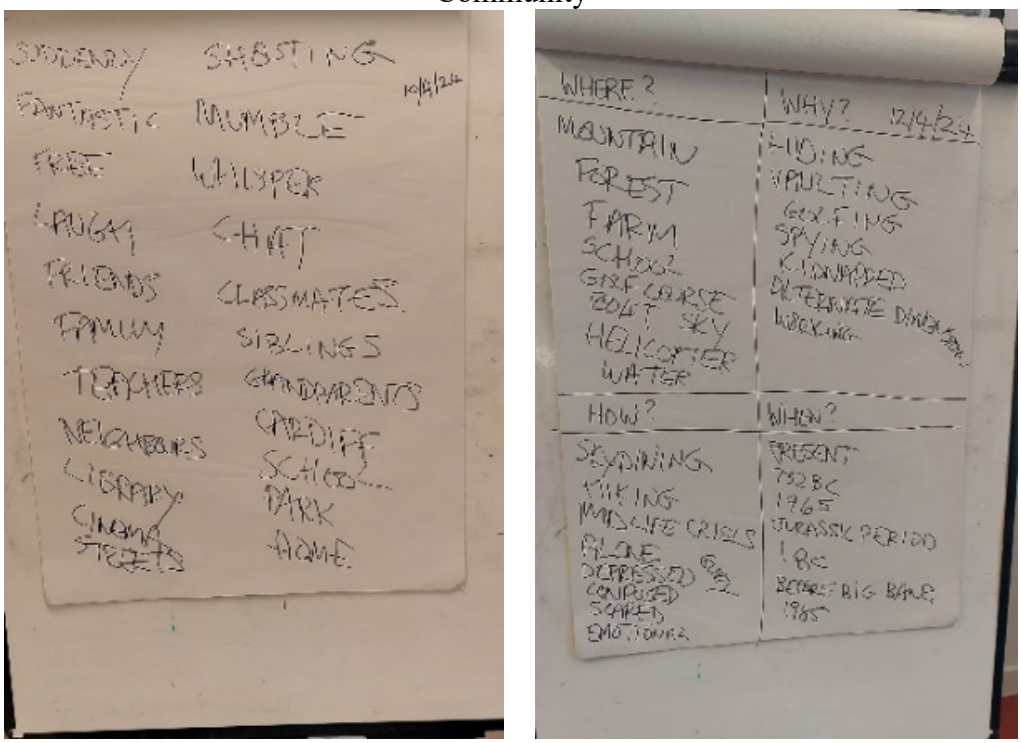
Figure 4: Art Club Lesson on Social Connections and Community



Note: Photograph taken by teacher [Penny (2024a)]

I was surprised that the learners were not so forthcoming about what social connections were as the wording '*social media'* is generally well known as a place to connect; this of course may have been down to shyness. However, once I moved on to talking about places to connect there was more energy and many suggestions. This information was used as a catalyst to help them get ready for a brainstorming session where I encouraged them to call out suggestions for connection, including the who? and why? As storytelling enables easier memory retention (Hardiman et al., 2014) it can be considered a useful methodology in teaching aspects of the school curriculum.

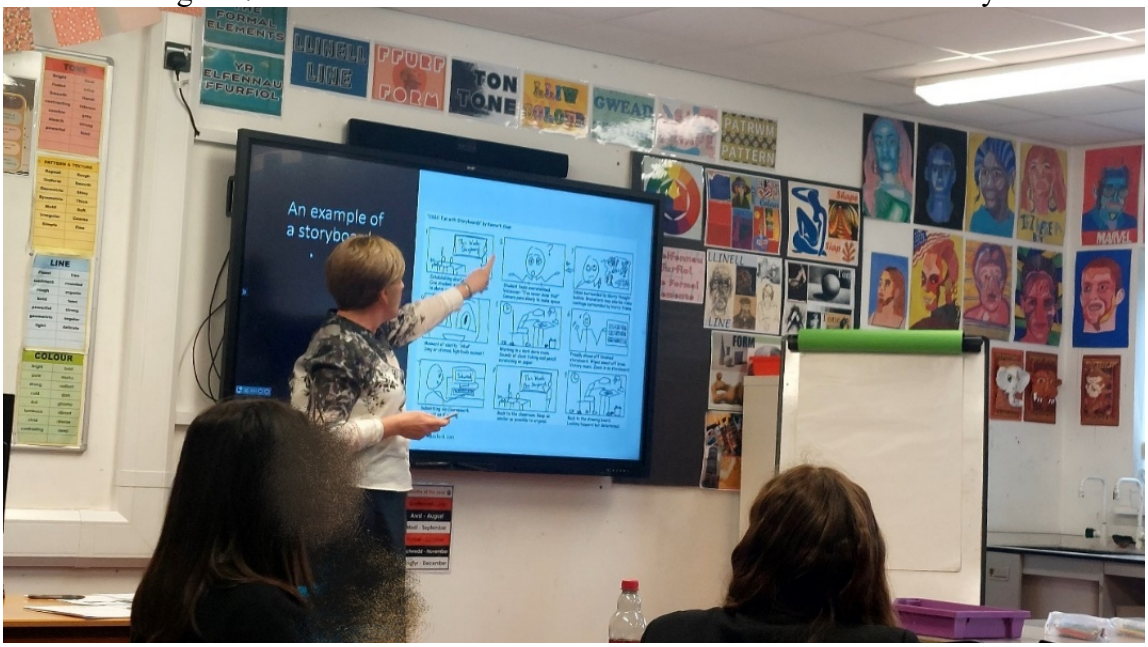
Figures 5 & 6: Brainstorming Session at Art Club on the Theme of Social Connections and Community



Note: Personal photographs

These brainstorming ideas were to encourage the learners to think about the potential for the collection of words and to consider them, or alternatives, as a basis to be used in a story around the theme of social connections and community. Having explained that there were no real restrictions there was some fun and engaging suggestions emerging. I then moved on to a session about storyboarding, and showed examples of how the media industry would use different camera angles and techniques in film and tv production.

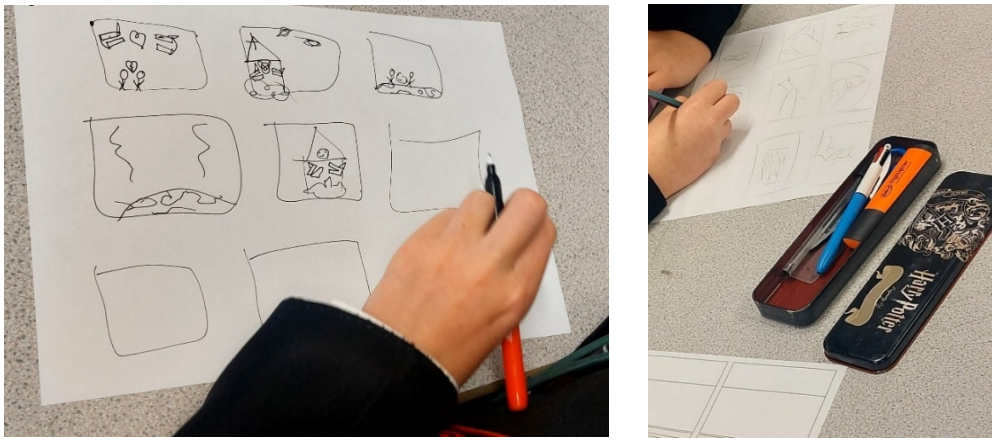
Figure 7: Art Club Lesson on Social Connections and Community



Note: Photograph taken by teacher [Penny (2024b)]

Pupils were asked firstly to create thumbnails and then to use these simple ideas as part of a more developed story about social connections in a community by using the storyboarding templates provided as part of the lesson.

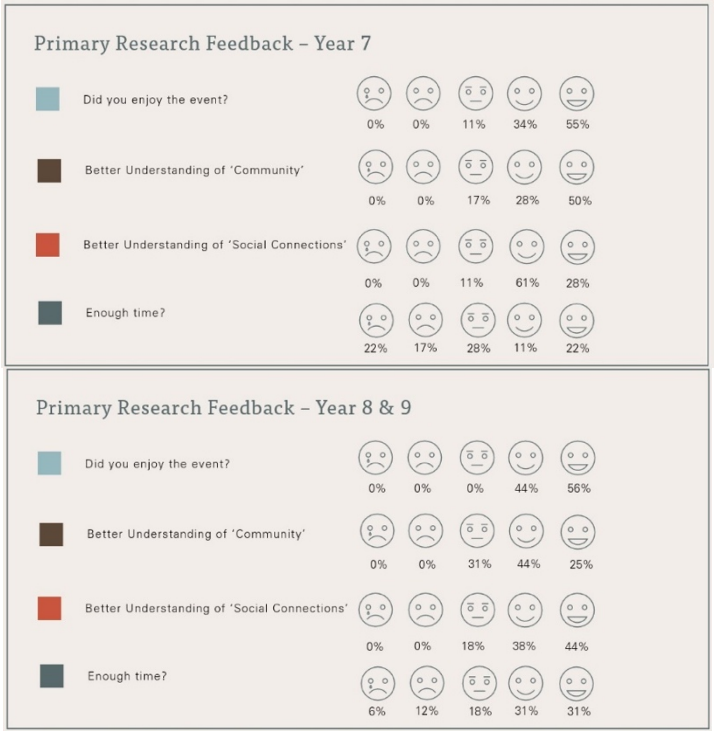
Figures 8 & 9: Thumbnails From Art Club Lesson on Social Connections and Community



Note: Photographs taken by the teacher [Penny (2024c), (2024d)]

Both groups participated in the event and some interesting stories unfolded, whilst many of them were perhaps only loosely related to the subject. This classroom-based exercise enabled the learners to creatively solve a problem on an otherwise challenging subject in an original and energizing way. It can perhaps be considered an enabler for learners to discover individually, and from their peers, where there may be opportunities to connect socially and in so doing help in improving their physiological and psychological well-being (Sandstrom & Dunn, 2014). Through visuals, storytelling and applying such techniques, the pupils may better remember aspects of social cohesion (Hardiman et al., 2014).

Figures 10 and 11: Feedback From Art Club Lessons on Social Connections and Community



Note: Personal photographs

The feedback from the learners was promising indicating an understanding of what the terms social connections and community mean. Such an approach could also be introduced for other subjects, in the curriculum including STEM based subjects where art has been proven to be beneficial in learning (Ng & Chan, 2019).

Getting Learners Engaged With Schools

Having an opportunity to learn about social cohesion in such an environment is beneficial, however, learners who live in low socio-economic areas may not benefit because of non-attendance (Reid, 2009, p. 20). Many buildings in the deprived areas of Wales have foreboding entrances. Why can't entrances to schools appear more inviting? Schools should be places of engagement, learning and fun but may not appear appealing to young learners. What subliminal messages are we demonstrating to children at the school gates? Could imagery or stories at school entrances contribute to an increase in school attendance? What would an appealing entrance look like to learners? Art and design methodologies can be utilised to create meaningful entrances/environments. Involving the learners and community, could help build social connections and improve local environments. Children could design their school entrance to make it appealing to them (Perez, 2007).

Inspired by one of the stories created by the pupils in the art club I created an intervention to be used at a school gate. This was created to imbue a sense of curiosity for learners and parents, to facilitate better attendance and to enable a sense of belonging. During research on a prior project, using a cluster sample of schools, it was evident that more can be done to make some school entrances more appealing. Improving entrances to the grounds could encourage increased attendance and facilitate improvement in the longer term mental and physical health of the learners. For this paper I focused on school entrances in the low socio-economic areas of South Wales (Office for National Statistics, 2023).

Figure 12: Google Image of Troedyrhiw Community Primary School

Source: Google (2022a)

Figure 13: Google Image of Beaufort Hill Primary School

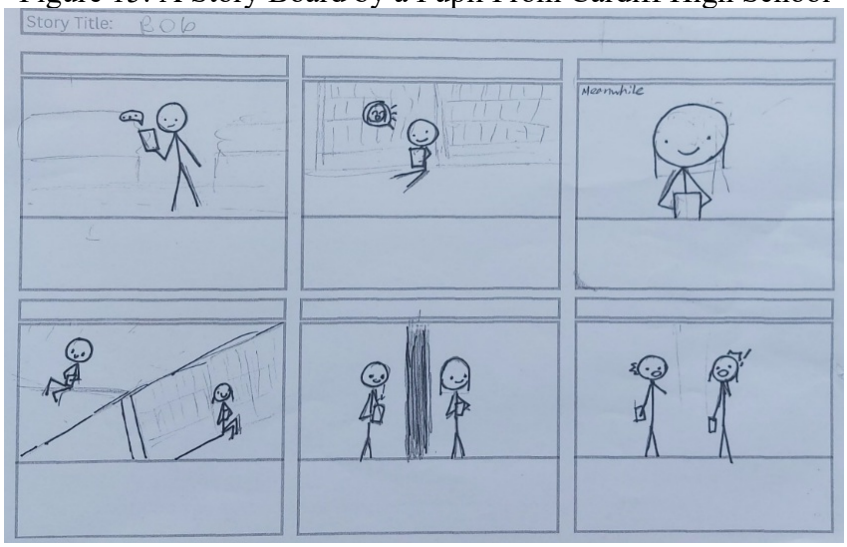
Source: Google (2022b)

Schools can work with outsides organisations as part of the curriculum (Welsh Government, 2024) and so opportunities exist for schools to invite guests with art and design backgrounds to create interventions to cultivate physiological and psychological wellbeing amongst its learners and teachers. Creative projects could be initiated to educate, develop and work with learners (Hwang Lynch, 2015), to help build relationships, to shape school environments (Perez, 2007) and in making entrances more welcoming spaces for parents and learners (Maverick Television, 2005). Interventions such as these create for a more welcoming environment where learners and their parents have a sense of belonging and added value. A creative/collaborative project at the school entrance could, in the long term, engage learners, improve attendance and help in learn invaluable skills needed for when they leave education. Inspired by the speculative designer McRae (n.d.) and the more positive aspects of digital media, I created an art invention to help bridge the gap between parent/learner and school. Using LEGO© bricks, I replicated a QR code downloaded from the internet and then set it in resin and concrete.

Figure 14: LEGO© Bricks Set in Resin

Note: Personal photograph

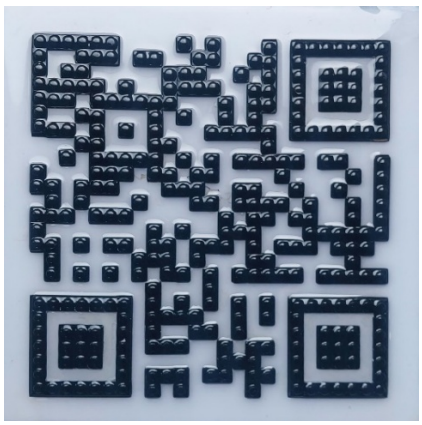
Figure 15: A Story Board by a Pupil From Cardiff High School



Note: Drawn by a pupil in the classroom [Unknown (2024)]

Embedded in the QR code is a simple animation to illustrate friendship which was inspired by one of the student's works from the art club. The QR code, set in concrete, is a developed idea, from a prior project on the same theme. Created to invoke a sense of belonging and connection between the learner/parent and the school it demonstrates alternative possibilities in encouraging attendance and hopefully help learners gain invaluable social skills whilst being part of a digital world.

Figures 16 & 17: LEGO© Bricks Set in Resin Replicating QR Code and Then Set in Concrete



Note: Personal photographs

Conclusion

This paper has established the importance of art and design in education and has examined the positive impact of creative learning in aspects of social cohesion. It has considered how art can be used as part of the school curriculum, to equip learners with social skills and how design can help a learner develop appropriate skills holistically. Its particular importance in areas of low socio-economic status (SES), has also been addressed and in how it can aid preschool learners and those in education, in theses local areas and more widely.

It has been established that social influences are learned from an early age (Heckman, 2013, p. 26) and cognitive development is enhanced when taught using creative processes (Karbasi-Amel et al., 2023). The fact that social cohesion is embedded in schools (Bar-Tal, 2000, xii) signifies its importance for both young and teenage learners (Goodyear, 2018/2019, p. 95; Welsh Government, 2022).

Social cohesion is a critical societal issue and is fundamental in education both physiologically and psychologically (Sandstrom & Dunn, 2014) however it is exacerbated by detrimental socio-economic conditions (Crowe et al., 2021). This paper argues that art and design can be successfully used, to develop social education and has significant benefit in learning STEM subjects as part of the school curriculum (Ng & Chan, 2019) with betterment in areas with low-socio-economic status (SES).

References

Bandyopadhyay, A., Marchant, E., Jones, H., Parker. M., Evans. J., & Brophy, S. (2023). Factors Associated with Low School Readiness, a Linked Health and Education Data Study in Wales, UK. *PloS ONE*, *18*(12). https://doi.org/10.1371/journal.pone.0273596

Bar-Tal, D. (2000). Shared Beliefs in a Society: Social Psychological Analysis. Thousand Oaks, London, New Delhi: *Sage Publications*. https://doi.org/10.4135/9781452204697

Brown, E. D., Benedett, B., & Armistead, M. E. (2010). Arts Enrichment and School Readiness for Children at Risk. *Early childhood research quarterly*, *25*(1), pp. 112–124. https://doi.org/10.1016/j.ecresq.2009.07.008

Cauldwell, B., & Vaughan, T. (2012). *Transforming Education Through the Arts*. Oxon: Routledge.

Chan, J., To, H., & Chan, E. (2006). Reconsidering Social Cohesion: Developing a Definition and Analytical Framework for Empirical Research. *Social Indicators Research, 75*(2), pp. 273-302. https://doi.org/10.1007/s11205-005-2118-1

Crowe, C. L., Domingue, B. W., Graf, G. H., Keyes, K. M., Kwon, D., & Belsky, D. W. (2021). Associations of Loneliness and Social Isolation with Health Span and Life Span in the U.S. Health and Retirement Study. *The journals of gerontology. Series A, Biological sciences and medical sciences*, *76*(11), pp. 1997–2006. https://doi.org/10.1093/gerona/glab128

Goodyear, V.A. (2019). *Young People, Social Media and Health.* (V.A. Goodyear, K.M. Armour, Eds). Taylor Francis. (Original work published 2018) http://library.oapen.org/handle/20.500.12657/28205

Google. (2022a). Google Image Troedyrhiw Community Primary School [Google Street View]. Retrieved from https://www.google.co.uk/maps/@51.7127003,-3.3459869,3a,75y,4.72h,86.9t/data=!3m7!1e1!3m5!1sCtepUALnugjjAD7NAYPsmg!2e0!6shttps:%2F%2Fstreetviewpixels-pa.googleapis.com%2Fv1%2Fthumbnail%3Fcb_client%3Dmaps_sv.tactile%26w%3D900%26h%3D600%26pitch%3D3.0985003603287993%26panoid%3DCtepUALnugjjAD7NAYPsmg%26yaw%3D4.72326854810931!7i16384!8i8192?entry=ttu&g_ep=EgoyMDI1MDIyNi4xIKXMDSoASAFQAw%3D%3D

Google. (2022b). Google Image Beaufort Hill Primary School [Google Street View]. Retrieved from https://www.google.co.uk/maps/@51.7971669,-3.197121,3a,60y,122.65h,78.14t/data=!3m7!1e1!3m5!1snKRoPuTAs9bH-Ea2zw8hGA!2e0!6shttps:%2F%2Fstreetviewpixels-pa.googleapis.com%2Fv1%2Fthumbnail%3Fcb_client%3Dmaps_sv.tactile%26w%3D900%26h%3D600%26pitch%3D11.858277230703806%26panoid%3DnKRoPuTAs9bH-Ea2zw8hGA%26yaw%3D122.65302910304719!7i16384!8i8192?entry=ttu&g_ep=EgoyMDI1MDIyNi4xIKXMDSoASAFQAw%3D%3D

Gray, J. (2012). *Henri Poincaré: A Scientific Biography*. Princeton University Press. https://doi.org/10.1515/9781400844791

Green, A., Preston, J., & Janmaat, J. G. (2006). *Education, Equality and Social Cohesion A comparative analysis.* London: Palgrave Macmillan.

Gregory, D. (2017). Let's get rid of art Education in Schools. *Phi Delta Kappan*, *98*(7), pp. 21-22. https://doi.org/10.1177/0031721717702626

Hardiman, M., Rinne, L., & Yarmolinskaya, J. (2014). The Effects of Arts Integration on Long-Term Retention of Academic Content. *Mind, brain and education*, *8*(3), pp. 44-148. https://doi.org/10.1111/mbe.12053

Heckman, J. J. (2013). *Giving Kids a Fair Chance*. MIT Press, Cambridge.

Hwang Lynch, G. (2015). Bold Designs. *School Library Journal*, *61*(10), pp. 20-. Retrieved from: https://www.proquest.com/docview/1717584131/fulltext/7A6D25CC5C61438FPQ/1?accountid=15588&sourcetype=Trade%20Journals

The Iron Maiden. (2020). The Reith Lectures, BBC Sounds, 25 July, 19:15. Retrieved from https://www.bbc.co.uk/programmes/b08v08m5

Karbasi-Amel, A., Rahnamaei, H., & Hashemi, Z. (2023). Play Therapy and Storytelling Intervention on Children's Social Skills with Attention Deficit-Hyperactivity Disorder. *Journal of Education and Health Promotion*, *(1):*317. https://doi.org/10.4103/jehp.jehp_1104_22

Maverick Television (Producer). (2005). *Transforming the Outdoors Entrance*. [Video] Teachers TV/UK Department of Education. https://video.alexanderstreet.com/watch/transforming-the-outdoors-entrance

M^{c}Glashan, A. (2018). A Pedagogic Approach to Enhance Creative Ideation in Classroom Practice. *International journal of technology and design education*, *28*(2), pp. 377-393. https://doi.org/10.1007/s10798-017-9404-5

M^{c}Rae, L. (n.d.). *Lucy M^{c}Rae.* Retrieved from: https://www.lucymcrae.net/

Ng, O., & Chan, T. (2019). Learning as Making: Using 3D Computer-aided Design to Enhance the Learning of Shape and Space in STEM-integrated Ways', *British journal of educational technology*, *50*(1), pp. 294-308. https://doi.org/10.1111/bjet.12643

Office for National Statistics. (2023). *Disability, England and Wales: Census 2021*. https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/disabilityenglandandwales/census2021#how-disability-varied-across-england-and-wales

Penny, H. (2024a). Art Club Lesson on Social Connections and Community [Photograph]. Cardiff High School.

Penny, H. (2024b). Art Club Lesson on Social Connections and Community [Photograph]. Cardiff High School.

Penny, H. (2024c). Thumbnails Art Club Lesson on Social Connections and Community [Photograph]. Cardiff High School.

Penny, H. (2024d). Thumbnails Art Club Lesson on Social Connections and Community [Photograph]. Cardiff High School.

Perez, G. (2007). *Students design new entrance for Mesa Elementary*, *McClatchy - Tribune Business News*. Washington: Tribune Content Agency LLC. Retrieved from https://www.proquest.com/docview/462685097?accountid=15588&pq-origsite=primo&sourcetype=Wire%20Feeds

Public Health Wales. (2020). *Life Expectancy and Mortality in Wales report published.* https://phw.nhs.wales/news/life-expectancy-and-mortality-in-wales-report-published/

Reid, K. (2009). The National Behaviour and Attendance Review in Wales: Findings and Recommendations on School Attendance. *Research in education*, *(Manchester)*, *81*(1), pp. 20–42. https://doi.org/10.7227/RIE.81.3

Sanders, E.B.N. & Stappers, P.J. (2008). 'Co-creation and the new landscapes of design'. *Co-Design*, *4*(1) pp. 4, 5, 9. https://doi.org/10.1080/15710880701875068

Sandstrom, G. M., & Dunn, E. W. (2014). Social Interactions and Well-Being: The Surprising Power of Weak Ties. *Personality & social psychology bulletin*, *40*(7), pp. 910–922. https://doi.org/10.1177/0146167214529799

Sousa, D. A., & Pilecki, T. (2018). *From STEM to STEAM: brain-compatible strategies and lessons that integrate the arts*. 2nd edition. Thousand Oaks, California: Corwin. https://doi.org/10.4135/9781544357393

Turkle, S. (2011). *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York: Basic Books.

Unknown. (2024). A story board by a pupil from Cardiff high school [Photograph]. Cardiff High School.

Welsh Government. (2022, January 10). *Area of Learning and Experience, Health and Wellbeing.* Retrieved from https://hwb.gov.wales/curriculum-for-wales/health-and-well-being/statements-of-what-matters/

Welsh Government. (2024, January 28). *Introduction to Curriculum for Wales guidance.* Retrieved from https://hwb.gov.wales/curriculum-for-wales/introduction-to-curriculum-for-wales-guidance/

Contact email: julesbrowndesign@gmail.com

Evolution of the Human Diet: Nutrition and Lifestyle Diseases

Rheagan Humphrey, Southern Methodist University, United States

The IAFOR International Conference on Arts and Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
This research explores the critical link between nutrition and lifestyle disease, focusing on obesity, breast cancer, prostate cancer, and cardiovascular disease, which disproportionately impact low-income communities and people of color. Rooted in personal experiences and broader societal trends, this research investigates how dietary choices, particularly protein consumption, contribute to these prevalent health issues. The analysis begins with a paleoanthropological perspective, challenging the notion that animal protein is solely responsible for increases in brain size and highlighting the dietary practices of early hominins. It transitions to examining the correlation between animal protein intake and the incidence of lifestyle diseases, drawing on compelling data from regions with low animal protein consumption, such as rural China, where these diseases are rare. The final section critiques the Standard American Diet, emphasizing the demographics most affected by fast and processed foods, ultimately linking this dietary pattern to obesity and type-2 diabetes. Utilizing a comprehensive range of scholarly sources, including *The China Study* and *Fast Food Nation*, the paper concludes that while a universally ideal diet remains debated, a plant-centric diet with limited animal protein can significantly reduce the risk of lifestyle diseases. This research underscores the importance of nutrition in public health discourse, advocating for dietary change as a preventative measure to alleviate the burden of chronic diseases within vulnerable populations.

Keywords: Dietary Evolution, Lifestyle Diseases, Plant-Based Nutrition, Nutritional Anthropology, Chronic Disease Prevention

iafor
The International Academic Forum
www.iafor.org

Introduction

The Standard American Diet (SAD) tends to conjure images of hamburgers or pizza. The types of foods associated with the SAD are relatively inexpensive and readily available at fast food establishments. Today, most American adults must work to provide for themselves and their families, meaning that many opt to forgo spending time preparing home-cooked meals in favor of purchasing fast food to save both time and money. The health consequences of these choices are staggering.

In the United States, approximately one in three citizens is overweight and about two in five are obese ("Overweight & Obesity Statistics," 2021). Medical costs associated with obesity exceeded $173 billion at the latest estimation ("About Obesity," 2024). Other lifestyle diseases include but are not limited to cardiovascular disease, certain cancers, hypertension, and type 2 diabetes. While there is some speculation as to the role genes play in the prevalence of these diseases, there is growing evidence that diet may be the deciding factor.

The issue is that Americans are thoroughly confused about what a healthy diet should consist of. Americans seem addicted to dieting, with estimations that more money in the US is spent "on diets than the amount needed to feed all the hungry people in the rest of the world" (Harari, 2018, p. 348). Yet the obesity epidemic appears to be getting worse, and heart disease remains the number one leading cause of death in the US.

In recent years, some have embraced the Paleo diet, believing it to be a diet that early humans would have consumed. The diet's objective is to choose only those foods that would have been readily available to humans living a hunter-gatherer lifestyle. However, recent scholarship argues that "early hominin diets varied over time and space and…we most likely evolved to be flexible eaters, driven by ever changing climates, habitats and food availability" (Ungar, 2018, p. 49). As Ungar (2017) succinctly states, "[t]he Paleolithic diet is a myth" (p. 203).

Thanks to giants in animal agriculture, much of the protein consumed in the US today comes from animal flesh and other animal-derived elements, such as dairy and eggs. Agribusiness giants pack massive lobbying and marketing capabilities, another huge component of Americans' nutritional confusion. While tackling the agribusiness giants will require systemic change, considerable change can be made on the individual level.

With the introduction of contemporary humans and agricultural systems, the human diet of affluent countries has evolved to include high quantities of processed foods, sugars, and animal proteins. By examining the evolution of the human diet, I explore how food choices in today's developed countries may lead to lifestyle diseases and sketch an outline for an evolutionarily optimal diet for human health. I conduct this exploration with a focus on protein consumption. I begin by studying the paleoanthropological background of early hominins, move into a discussion of animal protein consumption and possible connections to lifestyle diseases, and end with a critical examination of the SAD and some of its implications.

The Paleoanthropological Background

The earliest evidence of apes dates to the beginning of the Miocene epoch, somewhere between 25 and 18 million years ago (Andrews & Johnson, 2019). These apes would have dwelled in tropical forested or wooded areas and lived in trees. As the epoch progressed and the climate fluctuated, ancient apes became "associated with deciduous woodlands, both tropical and

subtropical" (Andrews & Johnson, 2019, p. 227). With the introduction of the earliest hominins around 5 million years ago, we find that their "habitat did not differ to any significant degree from that of later Miocene apes" and "[s]easonal climates and diets composed largely of fruit were retained in the earliest hominins" (Andrews & Johnson, 2019, pp. 227, 229). Later still, with the arrival of ancient members of our own species, the diet changed slightly to "one of hunting, scavenging, and probably some fishing, as well as the gathering of a broad range of seasonally available wild plant foods" (Ulijaszek et al., 2012, p. 153). Food selection brings into question the tooth form and shape of ancient apes and early hominins.

With the study of microscopic wear patterns on fossilized teeth, we find incongruencies in tooth form and likely diets of ancient apes and early hominins. These wear patterns suggest that "the sizes and shapes of an animal's teeth do not dictate what it eats" (Ungar, 2018, p. 42). Instead, tooth size and shape may only indicate the hardest foods an animal can eat if it must.

Central to early hominin food selection is Liem's paradox, defined as "[a] preference for foods other than those to which one is adapted" (Ungar, 2018, p. 44). Named after K. F. Liem, who was a professor of ichthyology and curator of ichthyology for the Museum of Comparative Zoology at Harvard University, Liem's paradox was first observed in 1980. The paradox "is not so much that individuals avoid the foods to which they are adapted but that specialized anatomy can lead to a more generalized diet" (Ungar, 2018, p. 44).

The environment and global temperatures were constantly in flux during different epochs, which also would have impacted available food options. Cooling trends would have created "an increasingly seasonal world," making "fruits that had been the primary food for apes…hard to find during the cooler months" (Andrews & Johnson, 2019, pp. 227-8). The stress of a constantly changing environment allowed for a quick change in genome expression in fossil apes. For example, around 8 million years ago, "there was a complete silencing of the uricase gene," which "provided selection (survival) advantage" for these early apes (Andrews & Johnson, 2019, p. 228). An enhanced ability to store fat and glycogen would have been vital for ancient apes during cooler seasons when fruits were less available. The uricase mutation is present in contemporary *Homo sapiens* today.

We have seen that ancient apes and early hominins mainly subsisted on fruits with other plant foods occasionally added. It is not until the introduction of *Homo habilis*, a hominin "associated with more open woodland environments," that we begin to see "the presence of increased meat in their diet," though controlled fire came along later with *Homo erectus* (Andrews & Johnson, 2019, p. 231). What is not clear is whether early species of *Homo* were predators or scavenged meat from older carcasses.

Homo habilis's digestive tract would have been similar to that of contemporary *Homo sapiens*, meaning that raw red meat would not have been consumable for early hominins. While there is speculation amongst anthropologists, we may never know how those early hominins consumed animal proteins before the controlled use of fire. Still, there is contested evidence that increased animal protein consumption led to an important evolutionary event.

About 3 million years ago, early *Homo* species experienced an increase in brain size (Andrews & Johnson, 2019). The brain is "an 'expensive' tissue, using about 20% of energy in modern humans compared with 8% in living apes" (Andrews & Johnson, 2019, p 232). From early hominins to *Homo habilis*, there was an increase in brain size of 30-40%; from *Homo habilis* to *Homo erectus*, there was an additional 40% increase in brain size (Andrews & Johnson,

2019). For these early species of *Homo*, some researchers believe that animals may have provided the most readily available sources of the protein required to support a growing brain.

I would argue, though, that the increase in protein consumption itself, as opposed to specifically animal-derived proteins, led to this increase in brain size. I arrive at this conclusion because carnivorous animals haven't seen an increase in brain size to such an extent as the species *Homo*, yet they eat diets composed of mostly animal proteins. If brain size increases were purely the result of increased animal proteins in the diet, then surely those species would have seen a significant increase too.

Others have taken issue with the consensus as well, noting that "although primates other than humans hunt, none display the proposed evolutionary correlates" and "quantitative data on modern human foragers show that big game hunting and scavenging are often highly unreliable provisioning strategies" (O'Connell et al., 2002, p. 50). For reasons that will become clear in the next section, there is also compelling evidence that high levels of animal protein consumption may be detrimental to human health.

The earliest *Homo sapiens*, which appeared around 300 thousand years ago, are "associated with a continued hunter-gatherer existence until approximately 10-12 [thousand years] ago, when early settlements were formed with evidence of domestication of cattle and sheep and the introduction of farming" (Andrews & Johnson, 2019, p. 234). With the creation of these settlements, the hunter-gatherer lifestyle was slowly replaced with that of agriculture, ushering in the agricultural revolution. Today, most do not live near wheat fields or animal farms, but we live in cities and generally do not have to travel far to find food at the nearest grocery store. This makes our daily food selections even more critical.

Early contemporary humans did not have large-scale animal feeding systems or agribusiness. It is likely that family units and perhaps larger community groups initially farmed plants and animals simply as a more efficient way of feeding themselves. Somewhere amidst the increase in human brain size, the introduction of agriculture, and present day, our protein and fat consumption have dramatically increased while consumption of other macronutrients has decreased (Conklin-Brittain et al., 2002). These changes are taking a toll on health in developed, industrialized countries.

Animal Protein Consumption and Lifestyle Diseases

T. Colin Campbell was raised on a dairy farm, a background at odds with his advocacy of a whole foods plant-based diet. He is a nutritional biochemist and professor emeritus at Cornell University. His son, Thomas M. Campbell, is a physician who emphasizes diet and lifestyle factors when working with patients. The father-son duo co-authored *The China Study* using evidence from T. Campbell's research with rats and the massive dietary study conducted in China in the 1980s. The findings of the China study have profound implications for the SAD and its connection with lifestyle diseases. The diseases discussed in this section include breast cancer, prostate cancer, and cardiovascular disease (CVD).

To study the connection between protein consumption and cancer formation, T. Campbell and his associates experimented with cancer development in rats using different types of protein and various levels of carcinogenic exposure using aflatoxin. Initially, T. Campbell and his team used casein, "which makes up 80-85% of cow's milk protein," as the protein of choice for the rats (Campbell & Campbell, 2017, p. 105). They specifically tracked foci, "precursor clusters of cells that grow into tumors" (Campbell & Campbell, 2017, p. 98). In an experiment where

the level of aflatoxin exposure was significantly higher in one group of rats than another, the rats who started "with the most cancer initiation (high-aflatoxin dose) developed substantially less foci when fed [a] 5% protein diet" while "animals initiated with a low-aflatoxin dose actually produced substantially more foci when subsequently fed [a] 20% protein diet" (Campbell & Campbell, 2017, p. 100). These findings suggested that increased protein in the diet can promote cancer growth. An important question was how much protein could be added to the diet before one begins to see negative results.

T. Campbell and his associates experimented by providing rats with protein between the ranges of 4-24%. T. Campbell notes that "the most significant finding of this experiment was [that] foci developed only when the animals met or exceeded the amount of dietary protein (12%) needed to satisfy their body growth rate" or, more simply, that "when the animals met and surpassed their requirement for protein, disease onset began" (Campbell & Campbell, 2017, p. 101).

In addition to experiments with protein consumption using casein, T. Campbell and his associates also tested cancer growth at different protein percentages with plant proteins. Two types of plant protein sources were used: gluten and soy protein. The results were astonishing. In the experiments using gluten, the "*plant protein did not promote cancer growth, even at the higher levels of intake*" (Campbell & Campbell, 2017, p. 105). Soy protein produced the same outcome. These findings pointed to a positive correlation between protein from cow's milk and cancer growth while simultaneously showing a negative correlation between cancer growth and plant protein consumption in rats.

Later, a more extensive experiment utilizing hundreds of mice over the course of two years was conducted by T. Campbell and his team. Again, rats were exposed to the carcinogen aflatoxin. The researchers changed the diets of some rats in the middle of the study. Their findings are significant in that rats that were "switched from a high-protein to a low-protein diet had significantly less tumor growth (35-40% less!) than animals fed a high protein diet," while rats that were "switched from a low-protein diet to a high-protein diet halfway through their lifetime started growing tumors again" (Campbell & Campbell, 2017, p. 107). However, as compelling as this evidence was, the experiment's conclusions alone were insufficient to determine any association between animal proteins and human cancer. That evidence came later with the China study and subsequent findings.

The China study was conducted in the early 1980s and involved 6,500 Chinese individuals, most of whom lived in rural areas. T. Campbell served with a team as the project director. The team examined the typical diets of rural Chinese citizens and tracked other useful information such as cancer prevalence and type and blood cholesterol levels. The team immediately noticed significant differences in the rural Chinese diet compared to the typical Western diet. While on average, Americans consume approximately 15-16% of calories in the form of protein, with "upwards of 81% of this amount com[ing] from animal-based foods," rural Chinese citizens consumed "only 9-10% of total calories…from protein and only 10% of this protein [came] from animal-based foods" (Campbell & Campbell, 2017, p. 124). The rural Chinese diet was essentially plant-based.

T. Campbell's team divided common diseases in China into two sets: diseases of affluence and poverty. Diseases of affluence were associated with nutritional extravagance and correlate with lifestyle diseases, whereas diseases of poverty were associated with nutritional insufficiency

and/or poor sanitation (Campbell & Campbell, 2017). The team found that an individual's blood cholesterol levels could be the best predictor for diseases of affluence.

Blood cholesterol levels in Americans tend to range from 170-290 mg/dL (Campbell & Campbell, 2017). Of the Chinese citizens examined for the China study, "[t]he average level of blood cholesterol was only 127 mg/dL" (Campbell & Campbell, 2017, p. 130). There are a few types of blood cholesterol, but for this paper, the main two are low-density lipoprotein (LDL) cholesterol and high-density lipoprotein (HDL) cholesterol. The China study found that "higher levels of the bad LDL cholesterol…were associated with Western diseases" (Campbell & Campbell, 2017, p. 131). Animal-derived foods, which contain cholesterol, appeared to raise LDL cholesterol levels, but plant-based foods, which naturally do not contain cholesterol, were not associated with this rise.

T. Campbell and his team also considered dietary fat intake in association with lifestyle diseases. When examining breast cancer and its relationship to dietary fat consumption, Campbell and Campbell (2017) noted that "reducing dietary fat from a 'high' of 24% to a low of 6% was associated with lower breast cancer risk" and "lower dietary fat in rural China meant less consumption not only of fat but, more importantly, of animal-based food" (p. 141). A low-fat diet in the US can include as much as thirty percent fat (Campbell & Campbell, 2017). Perhaps this is one reason why "breast cancer incidence is currently estimated to be 2.7 times higher in more industrialized than in less industrialized countries" (Krieger, 2002, p. 611). The types and amounts of foods we eat in the West are strikingly dissimilar from those in rural China, and our food choices may be condemning us to sickness.

In the US, it is estimated that "[o]ne out of eight American women will be diagnosed with [breast cancer] during their lifetimes" (Campbell & Campbell, 2017, p. 251). Among women diagnosed with cancer, breast cancer "accounts for nearly 1 in 4 cases…with 55% of cases occurring in more industrialized countries and 45% in less industrialized countries" (Krieger, 2002, p. 611). While genetics may play a role in this disease, nutrition can determine whether the disease can develop. Estrogen levels are believed to be linked with breast cancer formation. Our diets play "a major role in establishing estrogen exposure," suggesting "that the risk of breast cancer is preventable if we eat foods that will keep estrogen levels under control" (Campbell & Campbell, 2017, p. 253).

Others have corroborated Campbell and Campbell's findings regarding diet and disease. Focusing on prostate cancer, Hori and colleagues (2011) state that "in Far Eastern counties, e.g. Japan and China, where the incidence of prostate cancer is lowest, the traditional diet is mainly plant-based and minimally processed or refined" (p. 1348). Among American men, prostate cancer represents about one-fourth of total tumors and is the most common cancer diagnosed (Campbell & Campbell, 2017). This disease is often believed to be genetic. Like breast cancer, genes may play a small role, but diet ultimately seems to determine if the disease will become active.

Thanks to marketing in the US, men are often drawn to meals containing high amounts of animal-based foods. Grilling and barbequing have typically been portrayed in the media as "manly." This is concerning considering "increasing evidence that heterocyclic amines (HCAs) found in cooked meat are crucial carcinogens that have been implicated in the pathogenesis of several human cancers" (Hori et al., 2011, p. 1355). Hori and colleagues reviewed several studies explicitly relating to meat consumption and prostate cancer development. From their findings, they concluded that "the current evidence seems to suggest that a high meat diet,

particularly if very well cooked, may be associated with an increased risk of developing prostate cancer" (Hori et al., 2011, p. 1355).

Both *The China Study* and Hori and colleagues' article mention an association between dairy products and prostate cancer as well. The risk associated with dairy foods "may in part be attributable to the high amount of saturated fat present in dairy products" and "an increased dairy product intake may also influence the levels of circulating IGF-1, which has been shown to increase the risk of developing prostate cancer" (Hori et al., 2011, pp. 1352-3). Hori and colleagues (2011) do not advocate for an entirely plant-based diet to combat the risk of prostate cancer, but they do suggest that an ideal "prostate diet would be comprised of a diet low in saturated fat, refined carbohydrates, meat and dairy products with high vegetable, tomatoes…, soy and green tea consumption" (pp. 1355-6). The latter suggestions of soy and green tea were based on foods more typical in Eastern diets, which are associated with a lower prevalence of prostate cancer.

I mentioned in the introduction of this paper that CVD is currently the leading cause of death in the US. This disease, too, can likely be prevented or even reversed with dietary changes. Like certain cancers, it is believed that CVD can run in families. But again, food choice is vitally important. Yu and colleagues examined different types of foods and their association with CVD. They found that "[w]hole grain intake [was] associated with a substantially lower risk of CVD," "[n]uts and legumes are beneficial through their high unsaturated fat, fiber, micronutrient, and phytochemical content," and "[d]ietary fiber has been constantly demonstrated to lower risk of CVD and improve cardiovascular risk factors" (Yu et al., 2018, pp. 916, 919). Here too, the foods that appeared to promote health were plant-based, while those associated with disease risk were animal-derived.

Yu and colleagues (2018) state that "processed meat…has been shown to increase the risk of CVD in a robust linear fashion. Higher consumption of unprocessed red meat has also been associated with increased risk of CVD mortality" (p. 916). Perhaps as a response to the low-carb diet craze, Yu and colleagues (2018) added that "[l]ow-carbohydrate diets high in animal protein and fat were associated with higher risk of total and cardiovascular death among MI [myocardial infarction] survivors" (p. 916). Like Campbell and Campbell (2017), Krieger (2002), and Hori and colleagues (2011), Yu and colleagues (2018) made note of the difference in diets of the East and those of the West. Notably, the "Western dietary pattern was associated with a 14% increase in risk" of CVD (Yu et al., 2018, p. 918).

The China study set the stage for identifying a link between increased animal protein consumption and disease development. The study highlights the nutritional differences between rural Chinese and US citizens. Rates of breast cancer, prostate cancer, and CVD are low in rural China. In America, these same diseases are the leading causes of death. These diseases are lumped together under the heading of diseases of affluence throughout *The China Study*, but as we will see, they tend to disproportionately affect the least affluent in society. Working-class Americans, especially those in low-income communities, often don't have the knowledge or time to prepare healthy meals. The prevalence of processed foods and the high-fat content of fast foods is contributing to the increase in the three diseases previously mentioned as well as obesity and type 2 diabetes.

The Standard American Diet and Its Health Implications

The US is the birthplace of fast food, and the trend has spread like wildfire to other parts of the globe. Children living in big cities in China are now just as familiar with fast food chains as we are. Americans are constantly eating out, and our waistlines are gradually expanding. In their book, Power and Schulkin (2009) get straight to the point in the first sentence of their first chapter by stating a fact that we see every day: "Humanity is getting fat" (p. 21). Lack of exercise due to our sedentary lifestyles has played a part in the rise of obesity, but our food choices are equally important.

For many living in low-income communities in the US, accessing healthy foods can be a struggle. Some living in low-income communities find themselves in food deserts where grocery stores do not exist in their neighborhoods, requiring them to travel long distances just to find fresh fruits and vegetables. Conversely, in affluent communities, there are farmer's markets and many other grocery stores to choose from, often within walking or biking distance. Writing on findings of a report that analyzed the cost of healthy versus unhealthy diets, Yu and colleagues (2018) mention that "the healthiest diets cost approximately $1.50 a day, or about $550 more a year, than the unhealthiest diets" (p. 920). This additional cost may be too much for those choosing between paying rent and eating well each month.

In addition to food deserts, food swamps are also prevalent in low-income communities. "Food swamp" is a relatively new term and "refers to areas with an abundance of unhealthy processed and fast foods" (Yu et al., 2018, p. 920). Food swamps are much more likely to develop in low-income rather than affluent communities.

In the introduction of this paper, I provided statistics on obesity prevalence and the costs associated with this disease. While cases of obesity are rising all over the world in developed countries, the US is currently leading in the number of individuals diagnosed. Using body mass index (BMI) calculations, "the WHO [World Health Organization] has estimated that there are now over 1 billion overweight or obese people in the world" while at the same time "800 million people [are] suffering from malnutrition" (Power & Schulkin, 2009, p. 29). The previous section explored associations between animal protein consumption and lifestyle diseases. Campbell and Campbell suggest that this trend is also true for obesity and type 2 diabetes.

Campbell and Campbell (2017) propose that the "solution to losing weight is a whole foods, plant-based (WFPB) diet, coupled with a reasonable amount of exercise" (p. 220). Unlike fad diets, a WFPB diet requires long-term lifestyle changes. This long-term change "can provide sustained weight loss while minimizing risk of chronic disease" (Campbell & Campbell, 2017, p. 221). Type 2 diabetes is a disease that tends to accompany obesity. This form of diabetes used to appear mainly in middle-aged adults, but its prevalence is growing in children today. With type 2 diabetes, a diagnosed individual "can produce insulin, but the insulin doesn't do its job effectively" and results in insulin resistance (Campbell & Campbell, 2017, p. 232). People with diabetes are at increased risk of developing heart disease, stroke, high blood pressure, blindness, kidney disease, nervous system disease, and dental disease (Campbell & Campbell, 2017). Diabetes is usually described as an incurable disease, and diabetics are often prescribed medications that they are expected to take for life.

Not all doctors are satisfied with the consensus of viewing diabetes as incurable. Campbell and Campbell cited a small-scale study conducted by scientists at the Pritikin Center. In the study, people with type 2 diabetes consumed plant-based diets low in fat and added moderate exercise. Forty of the study participants were taking medication for their diabetes when the study began.

Thirty-four of those forty "were able to discontinue all medication after only twenty-six days" (Campbell & Campbell, 2017, pp. 242-3). That is an 85% success rate utilizing only diet and lifestyle changes. Subsequent studies have been conducted using variations on plant-based diets and have produced similar results. One reason for the hesitancy in announcing that lifestyle changes can prevent or reverse type 2 diabetes may be that the pharmaceutical companies would stand to lose millions – perhaps billions – of dollars if most medically treated type 2 diabetics no longer needed their drugs.

There are currently some who would choose not to adhere to a primarily vegetarian or WFPB diet because they simply don't wish to give up certain foods. However, some individuals would like to try these types of diets but may live in communities where access to the foods required to maintain the diet is not readily available or accessible. Power and Schulkin (2009) point out that "structural societal changes in food economics have resulted in highly palatable, calorie-dense foods…being generally less expensive than their more healthful alternatives such as fresh fruits and vegetables" (p. 42). If these economics are maintained, obesity and type 2 diabetes will only become more prevalent in less affluent communities as time progresses.

In the US, unhealthy eating habits are established while children are still very young. Power and Schulkin (2009) uncovered research which found "that nearly half of the U.S. children's vegetable consumption is fried potatoes" (p. 42). These unhealthy eating habits are spilling over into the lunches provided in public schools.

In 2012, new regulation was put in place to provide more nutritious school lunches. The new nutrition standards set out "to reduce sodium, saturated fat, and trans fats, and increase fruits, vegetables, and whole grains…as part of their efforts to curb childhood obesity" (Yu et al., 2018, 921). This was a huge step in the right direction, but the regulations did not last long. Some of the regulations just mentioned, "including the sodium and whole grain requirements, [were later] relaxed by the U.S. Department of Agriculture due to concerns of perceived palatability and food wastage" (Yu et al., 2018, p. 921). Children are so accustomed to eating high-sodium, fatty foods that they find nutritious foods repulsive. US children are being raised in a way that supports the development of lifestyle diseases.

Conclusion

In this paper, I have briefly outlined the paleoanthropological background of hominins. We have seen nutrition change from a primarily plant-based, foraging diet to the highly processed, high-fat diet consumed today. I highlighted research that links excessive animal protein consumption with diseases like breast cancer, prostate cancer, CVD and may also be implicit in the development of obesity and type 2 diabetes. I did not get to dive into the substantial scholarship and research on refined carbohydrates and sugar intake as they relate to lifestyle diseases. While refined carbohydrates and sugars are of concern with the prevalence of these diseases, they were beyond the scope of the present paper.

On the systemic level, change will require governments to ban lobbying by agribusiness giants. This type of change is possible, but it will not occur overnight. Meatpacking firms are extremely powerful, and this power "has been sustained by their close ties and sizable donations to…members of Congress" (Schlosser, 2012, p. 196). Governments cannot allow donations of this type to continue if we are to seriously attempt to prevent lifestyle diseases. Another considerable issue is advertising, especially when directed towards children. We know that "marketing and advertising are able to create major shifts in food demand because marketing leads people to increase their consumption of advertised products" (Yu et al., 2018,

p. 921). Countries like France have made positive changes on this front by requiring fast and processed foods marketed to children to be labeled as detrimental to good health.

We can see more and immediate change on the individual level. Agribusiness giants and fast food establishments may not be overly concerned with the health effects of the foods they supply, but they are driven by profit. The simplest and most effective actions individuals can take is to abstain from spending money on these industries and invest in nutrition education. We cannot continue to be content with being sick.

References

Andrews, P., & Johnson, R. J. (2019). Evolutionary Basis for the Human Diet: Consequences for Human Health. *Journal of Internal Medicine*, *287*, 226-237.

Campbell, T. C., & Campbell, T. M. (2017). *The China Study: The Most Comprehensive Study of Nutrition Ever Conducted and the Startling Implications for Diet, Weight Loss and Long-Term Health*. Dallas: BenBella Books, Inc.

Centers for Disease Control and Prevention (2024, January). *About Obesity*. https://www.cdc.gov/obesity/php/about/index.html

Conklin-Brittain, N. L., Wrangham, R. W., & Smithm, C. C. (2002). A Two-Stage Model of Increased Dietary Quality in Early Hominid Evolution: The Role of Fiber. In P. S. Ungar & M. F. Teaford (Eds.), *Human Diet: Its Origin and Evolution* (pp. 61-76). New York: Praeger.

Harari, Y. (2018). *Sapiens: A Brief History of Humankind*. [eBook edition]. Harper Perennial.

Hori, S., Butler, E., & McLoughlin, J. (2011). Prostate Cancer and Diet: Food for Thought? *BJU International*, *107*, 1348-1360.

Krieger, N. (2002). Is Breast Cancer a Disease of Affluence, Poverty, or Both? The Case of African American Women. *American Journal of Public Health*, *92*, 611-613.

National Institutes of Health (2021, September). *Overweight and Obesity Statistics*. https://www.niddk.nih.gov/health-information/health-statistics/overweight-obesity

O'Connell, J., Hawkes, K, & Jones, N. B. (2002). Meat-Eating, Grandmothering, and the Evolution of Early Human Diets. In P. S. Ungar & M. F. Teaford (Eds.), *Human Diet: Its Origin and Evolution* (pp. 49-60). New York: Praeger.

Power, M. L., & Schulkin, J. (2009). *The Evolution of Obesity*. Johns Hopkins University Press.

Schlosser, E. (2012). *Fast Food Nation: The Dark Side of the All-American Meal*. NEED CITY: Mariner Books.

Ulijaszek, S. J., Mann, N., & Elton, S. (2012). *Evolving Human Nutrition: Implications for Public Health*. Cambridge University Press.

Ungar, P. S. (2017). *Evolution's Bite*. Princeton University Press.

Ungar, P. S. (2018). The Real Paleo Diet. *Scientific American*, *319*, 42-49.

Yu, E., Malik, V. S., & Hu, F. B. (2018). Cardiovascular Disease Prevention by Diet Modification: JACC Health Promotion Series. *Journal of the American College of Cardiology*, *72*, 914-926.

Contact email: rphumphrey@smu.edu

An Experimental Study on Methodology for the Use of Picture Comprehension of Sewing Technology: An Example of Course in Design and Technology

Bayarjargal Vanchinsuren, Mongolian National University of Education, Mongolia

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
This study aims to design a methodological model to support students' skills to use picture comprehension of Sewing Technology. In analyzing how deeper and to what extend technological planning and sewing schemes have been integrated in the contents of the curriculum and textbook for secondary schools, we conducted research on how the second-year students of Design and Technology could comprehend the picture information; assessed their picture comprehension skills by giving tests suitable to each skill, and defined the level of skills: reading information shown in pictures, explaining schemes described in simple pictures, studying methodology of applying in the same situation, comprehending and applying information in pictures. As the theoretical and methodological basis of the study, we used modern theories on education studies and its general principles and developmental learning theory to assess students and teachers' skills that construct and develop knowledge. The results of the study have proved that it is possible to improve students' skills to comprehend and analyze sewing schemes and picture information have improved. Finally, the findings indicate that the students have possessed the skills to comprehend, perceive, imagine, express by imagination, simplify, apply, and transform picture information, its structure, components, and the order to draw it.

Keywords: Sewing Technology, Picture Information, Analyze

iafor
The International Academic Forum
www.iafor.org

Introduction

With the universally accepted need of the society, students must acquire design and technology education to learn how to access to services and products that will enable them to deliver excellent design and technology at every educational stage giving young learners the knowledge, skills, and personal attitudes needed when entering the workplace. Design and technology are our future so it must be one of the priorities of educational system. Thus, students need to develop their visual thinking in order to understand technological processes and to create knowledge using them.

This study aims to design a methodological model to support students' skills to use picture comprehension of Sewing Technology. To achieve the proposed aim, the study has accomplished the objectives such as (1) to revise the theoretical and methodological literature review; (2) to examine and define students' picture comprehension of Sewing Technology; (3) to design and test a practice-based methodological model of picture comprehension of Sewing Technology Course; and finally, based on the results of the study (4) to interpret the findings.

Research Design

As the theoretical and methodological basis of the study, we have accomplished the activities in what follows:

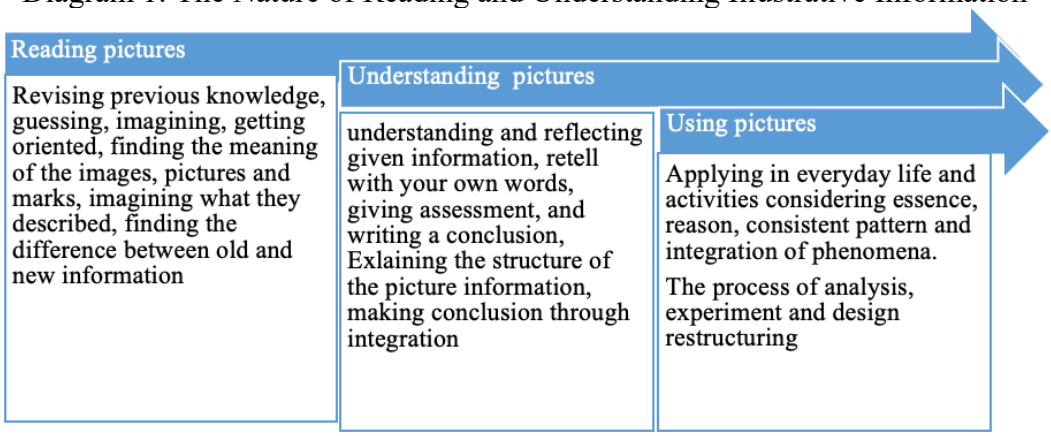
1. We compared teaching contents of cognitive and constructive theoretical concepts to acquire knowledge creatively and defined learning outcomes.
2. Jerome Bruner's concepts that construct knowledge through active experience and learning is the process of creating knowledge and thinking of modern theories and concepts about the cognitive process of education was taken as the theoretical basis of the test that develop students' skills of picture comprehension.
3. For theoretical and methodological basis, we used modern theories on education studies and its general principles and developmental learning theory to assess students and teachers' skills that construct and develop knowledge.

Research question: A methodological model and result of the test to support the picture comprehension skills.

In analyzing how deeper and to what extend technological planning and sewing schemes have been integrated in the contents of the curriculum and textbook for secondary schools, we conducted research on how the second-year students of Design and Technology could comprehend the picture information based on the analysis and we assessed their picture comprehension skills by giving tests suitable to each skill.

Picture comprehension is to describe the meaning of the object image through explanations so that knowledge construction principle through picture comprehension can be formulated by the following steps.

Diagram 1: The Nature of Reading and Understanding Illustrative Information



Experiment

Students learnt the basic understandings of "The basis of sewing technology" such as at the first-year imaginary geometry, material studies and national crafting and at the second year they are studying it as a main subject. We defined the level of skills: reading information shown in pictures, explaining schemes described in simple pictures, studying methodology of applying in the same situation, comprehending and applying information in pictures.

The aim of the study: To define the level of the skills to comprehend simple sewing schemes which reflected in the content of the technology course for the basic education before studying basic professional courses.

To define the level of learners' knowledge we chose the following three criteria with the example of information in schemes of sewing technology course.

1. Tasks to define drawing and describing skills
2. Drawing simple sewing in schemes
3. Explaining schemes shown in pictures

It seems possible to assess students' drawing skills while considering whether new students specialized in design technology took an exam of scheme drawing, whether they chose this profession on their interests and talents, whether they took the exam on sketch and technology. To design the test, we paid attention to how simple understandings about drawing schemes are implemented. Plain seam is not hidden visible, a single line of stitching inside the matched edges of one or two pieces of material so that we prepared test questions to define how they got knowledge about this sewing process. To explain given scheme in pictures, students need to think abstractly and imagine and it can be possible to describe how they comprehend given information in pictures. If they can explain schemes correctly and design another version, they can use and sew correctly. Within the objectives of the study, we revised the curricula for "The basis of sewing technology" course for teachers of design technology and improved methodologies year by year: (a) Traditional curriculum; (b) Newly integrated curriculum of STEAM methodology; and (c) Newly integrated curriculum of CDIO methodology.

Conclusion

In applying a newly designed methodological model to support students' skills to use picture comprehension of Sewing Technology, we have reached to the following conclusions:

1. The results of the study have proved that it is possible to develop students' sewing schemes and picture comprehension skills by designing and implementing an outcome-based methodology model of CDIO at the course of Basics of Sewing Technology as one of the professional courses of BA Program in Design and Technology Education.
2. The study has proved that it is possible to improve students' skills to comprehend and analyze sewing schemes and picture information have improved and this, in turn, support students to acquire important basic skills of 'professional sewing designer', for instance, to sew the items while strictly following schemes, to change the sewing technology, and to show the schemes in pictures.
3. The findings indicate that the students have possessed the skills to comprehend, perceive, imagine, express by imagination, simplify, apply, and transform picture information, its structure, components, and the order to draw it. This have positively influenced on student learning achievement and performance as well.
4. In adapting and applying the Bloom's Taxonomy, sample tests and assignments have been developed to identify the students' skills to use picture comprehension of Sewing Technology. The results have shown that students' skills to comprehend picture information was 76%; skills to analyze the picture information – 48%' skills to transform – 40%; and skills to make logical conclusion – 33.3%. This is the evidence of need to develop students' skills.
5. The experimental lessons have been conducted in mixed forms of teaching such as practice-based, peer-learning, flipped classroom, and apprentice learning. The results have shown that each criterion has improved from 7.7% to 15.3%. This simply tell that the hypothesis of the study has proved.
6. A newly designed methodological model which has included the related terms, concepts, and methodologies to manage cognitive actions to work on picture information, to decode marks, to find main ideas, to import social meanings, to express ideas using student-generated language, and to assess and analyze the information, can be seen that the novelty of the study.

References

Chuluuna, G. (2022). Some Theoretical & Methodological Problems on Design Technology Education.Classroom and UB: oages 58-59.

Erdenekhuu, N. (2017). Methodological Recommendations on Integrated Curriculum & Curriculum Development. Ulaanbaatar.

Tugsuu, J. (2020). Some Theoretical & Methodological Problems on Combined Study of Classroom and Virtual Learning. Ulaanbaatar.

Contact email: bayarjargal.v@msue.edu.mn

Intersubjectivity and Emotion in Narratives of Inherited War Memories

Tomoko I. Sakita, Doshisha University, Japan

The IAFOR International Conference on Arts & Humanities in Hawaii 2025
Official Conference Proceedings

Abstract
Inherited-memory transfer differs from direct-experience transfer, although the mechanisms, effects, limitations, and transformations in terms of how historical facts are transmitted across first, second, and third generations remain unclear. This study explores the expression of stance and emotion in narratives of inherited war memories, as recounted by second-generation Japanese narrators reflecting on the wartime experiences of family members during World War II. The study draws on the theoretical frameworks of dialogic syntax and stance theory, focusing on the analyses of lexical and syntactic resonance. The following conclusions were drawn: First, the narrative of inherited memory is jointly constructed, and it features layered stances that encompass the first-generation's depiction and evaluation of past events, alongside the second-generation's evaluation of both the narrated events as well as the first-generation's oration. The first generation's evaluation is presented through intensive repetitions, evidential markers, and demonstratives, whereas the narrator's evaluation involves meta stance using particles that affect the listener's cognition. Second, additional narrative organizational elements, such as textual and interactional markers, are included to connect themes and rhemes. These multilayered structures, featuring syntagmatic and paradigmatic relations with multiple subjectivities, facilitate the development of a cohesive narrative. Third, the joint engagement creates an intersubjectively-constructed narrative space as a foundation for aligning with the listener, aiming to foster intersubjectivity with the third generation.

Keywords: Intersubjectivity, Dialogic Syntax, Narrative, Inherited War Memory, Resonance, Stance

iafor
The International Academic Forum
www.iafor.org

Introduction

Nations worldwide, including Japan, face challenges in transmitting the memory of their sacrifices during World War II (WWII). This study aims to explore the mechanisms, effects, limitations, and transformations involved in transmitting historical facts across the first, second, and third generations, examining how people recount events that they have not experienced and the structure of inter-generational narratives.

The study examines the linguistic expression of stance and emotion in narratives of inherited war memories recollected by second-generation WWII narrators, relating to the wartime experiences of a family member. Inherited-memory transfer differs from direct-experience transfer. Especially in narratives of inherited war memories, stance and language play significant roles. Stance is a multi-faceted construct that involves the use of grammatical resources not only to shape personal or political identity, but also to construct the social world and engage in social action (Johnstone, 2007). The topic of war memories has been widely explored across various domains. Studies on narratives of memory and post-memory (Hirsch, 2008) have identified differences between first-generation and second-generation narratives. First-generation narratives (Hoffmann, 2004) reflect the emotional aftermath of the atrocities experienced, focusing on "a chaos of emotion … rather than any coherent narration" and "a universe of absolute forces and absolute unreason, a world in which ultimate things happened without cause or motive." Conversely, second-generation narratives (Sicher, 2000) represent memory, generational distance from history, highlighting the need to preserve memory and its evolving function. To date, no study has explored the discursive and linguistic aspects of such narratives. At best, studies of narrative discourse analysis have highlighted content-related aspects, such as causality within the narrative or considerations about where to begin the story, what to include, and what to omit (Labov, 2008). They also address function-related aspects such as sense-making (Bruner, 2008), construction of identity along multiple story lines (Harré, 2008), and positioning and stance-taking (Schiffrin, 2006).

Hypothesis

This study hypotheses that narrators employ linguistic resources, including structural and lexical resonance, to build intersubjectivity with their parents, and further foster intersubjectivity with their listeners while constructing in-the-moment narratives. Narrators especially express their emotional and moral interpretations through resonance, while dynamically shaping these interpretations by integrating and synthesizing the past and the present.

Theoretical Frameworks

This study relies on the theoretical frameworks of dialogic syntax (Du Bois, 2014) and stance theory (Du Bois, 2007). Dialogic syntax is a linguistic framework conceptualized by Du Bois (2014), which explores how grammar organizes mappings between utterances to create meaning and facilitate engagement. The dialogic syntax encompasses analytical tools such as parallelism (Sakita, 2006), priming, analogy, and dialogicality (Bakhtin, 1981).[1] Its central mechanism is resonance, or the process of activating inherent affinities and relationships

[1] Dialogicality (Bakhtin, 1981) is not limited to cross-turn exchanges but stems from within the utterances of a single speaker, for it points to "engagement with prior words and structures" (Du Bois, 2014, p. 372).

between comparable linguistic elements. The dynamic structural organization of language that crosses the boundary between interlocutors or utterances is represented on the diagraph.

Speakers selectively recycle features of prior utterances to express and negotiate their upcoming stance. Stance and stance relations are often embedded and effectively highlighted through a structural frame of resonance (Du Bois, 2007; Nir, 2017; Sakita, 2013, 2017). Stance-taking involves the stance subject evaluating the stance object, and by so doing, positions herself/himself. It establishes a relationship, particularly in alignment with a prior stance-taker. In this sense, stance-taking often not only involves subjectivity, but also intersubjectivity (Du Bois & Kärkkäinen, 2012). This study examines how intersubjectivity unfolds in stories told by narrators who are not direct experiencers but share an intersubjective space with the experiencer.

Methodology

I interviewed Japanese second-generation WWII narrators and collected retellings of the most memorable personal memories shared by their parents. The data were transcribed and analyzed for stance-taking and language, especially the use of resonance. The analysis focused on (1) how the narrator positions herself/himself in relation to the first generation and her/his own experience, (2) how the narrator expresses her/his stance in terms of vocabulary and syntactic structure, and (3) how the narrative unfolds, by emphasizing resonance on diagraphs. Narrative excerpts were represented in diagraphs as a tool for analyses. The descriptive and evaluative expressions were analyzed from the perspective of stance subjects, stance contents, positionings, connection to themes, linguistic characteristics and co-occurring expressions, epistemicity, and evidentiality.

Results

Narrative Content and Organizational Structure

(1) is an excerpt from a narrative by a second-generation Japanese male. During WWII, his father lived with his family in a Japanese colony in Pyongyang, North Korea. His grandfather was captured by Russian soldiers and never returned. His father often shared his memories with his son. In excerpt (1), the narrator recounted his father's descriptions of Russian soldiers wearing watches that they had stolen from Japanese people; (2) is its English translation.

> (1) その時計を右手にも左手にも腕にも，いっぱい，こう，つけていると．何個も何個も何個も，腕，腕に，つけているって言って．(中略) 変なことをするっていうね，例で．まあ，おかしな人たちっていう，例でね，そういう例がね，い，いっぱい出てくるんですよ．その，手，腕中に，こう，つけている，(中略) 日本人から，こう，ね，奪ったものを，腕中に，こう，何か，こう，勲章みたいにね，こうやって何個も，1 個でいいのにね，時計はって言って．その，常識と，常識はずれっていうふうなことをすごい言ってるわけです．で，こんなに腕につけてるんだとか言って，結局僕が，聞いてる僕が，変だねって思うような，感じなのね．物言いですよ
>
> (2) They wore the watches both on the right and left wrists as well as on arms; many, like this, they were wearing (he says). Many, many, many, arms, on arms, they were wearing (he) says. … (They were) doing strange things, you know, such examples. Indeed, they were insane people, such examples, you know, that kind of examples came up a l- lot, you know. Well, hands, all over the arms, like this, wearing, … What they

stole from the Japanese, like this, you know, all over the arms, like this, such as, like this, like medals you know, like this many. One is enough you know, as for watch, (he) says. The, common sense and, lack of common sense, something like that, (he) was saying very much. And, they wear them on arms like this many, (he) says and, after all, I, I who is listening, consider it as strange, kind of thing, you know. Such a manner of speaking, you know.

This is spread out on Diagraph 1. The white rows have Roman scripts, and gray rows represent English annotations.[2]

Diagraph 1: Overall Structure for (1)

	Textual, Interpersonal			Demonstrative, Meta				Evidential, Cognitive				
1		*sono tokei o*		*migite nimo hidarite nimo ude nimo*								
		the watch OBJ		right hand on too, left hand on too, arms on too								
2			*ippai,*			*kou,*		*tsukete iru*	*to.*			①
			many			DEM		wearing	QT			
3			*nanko mo nanko mo nanko mo*	*ude, ude ni,*				*tsukete iru*	*tte*	*itte.*		
			many many many	arms, arms on				wearing	QT	say and		
4				*henna koto o suru*	*tte*	*iu ne,*	*rei*		*de.*	+1		
				strange thing OBJ do	P	mean FP	example		and.			
5	*maa,*			*okashina hito tachi*	*tte*	*iu,*	*rei*		*de*	*ne,*		
	DM			insane people	P	mean	example		and	FP		②
6				*sou*		*iu,*	*rei*		*ga*	*ne,*		
				such		mean	example		SUB	FP		
7			*i- ippai*					*detekuru*	*n desu*	*yo.*		
			m- many					appear	N COP	FP		
8	*sono,*			*te, ude ju: ni,*		*kou,*		*tsukete iru,*				
	DM			hands, arms, all over, on		DEM		wearing				
9		*nihonjin kara,*				*kou, ne,*	*ubatta mono o,*			+2		①
		Japanese from				DEM FP	stolen item OBJ					
10				*ude ju: ni,*		*kou,*						
				arms, all over, on		DEM						
11	*nanka,*					*kou,*	*kunshou mitaini*			*ne,*		①
	DM					DEM	medal like			FP		②
12		*kou yatte*	*nanko mo,*									
		like this	many									①
13			*ikko de ii noni ne,*				*tokei wa*		*tte*	*itte.*		
			one good enough but FP				watch TOP		QT	say and		
14	*sono,*			*jo:shiki*	*to,*							
	DM			common sense	P							②
15				*jo:shiki hazure*	*tte*	*iu huuna*	*koto o*	*sugoi itteru*	*wake*	*desu.*		
				common sense lack	P	mean like	thing OBJ	very much saying	reason	COP		
16	*de,*		*konna ni*	*ude ni*				*tsukete iru n da*	*toka*	*itte*		①
	and		this much	arms on				wearing N COP	or	say and		
17	*kekkyoku boku ga,*											
	after all	I SUB										
18		*kiiteru boku ga,*										
		listening I SUB										
19				*henda ne*	*tte*	*omou youna*						②
				strange FP	P	think like						
20							*kanji*		*nano*	*ne.*		
							impression		AUX P	FP		
21							*mono ii*		*desu*	*yo.*		
							manner of speaking		COP	FP		

Diagraph 1 maps the correlation between linguistic features and evaluations with first- and second-generation narrator subjectivities using the marked resonance. Among horizontal lines,

[2] The following abbreviations are used for grammatical terms in linguistic interlinear glossing in diagraphs.

AUX	=	auxiliary verb
COP	=	copula
DEM	=	demonstrative
DM	=	discourse marker
FP	=	final particle
N	=	nominalizer
OBJ	=	object marker
P	=	particle
QT	=	quotative marker
SUB	=	subject marker
TOP	=	topic marker

the non-circled parts (lines 1–3, 8–10, 12–13, 16) represent first-generation subjectivity (as marked with the encircled 1 on the right side of the diagraph). The yellow-highlighted parts in dotted circles (lines 4–7, 14–15, 17–21) represent second-generation subjectivity (encircled 2). Line 11 is a combination of first- and second-generation subjectivities (encircled 1 and 2). The resonance is noticeable within the unity of the evaluations and descriptions attributed to each generation, which will be explained with separate diagraphs below. Meanwhile, among vertical columns, the pink-highlighted circles encompass narrative organizational elements. The column on the extreme left includes textual or interactional features, the central column represents demonstrative adverbs or meta-level expressions, and the column on the extreme right includes evidential or cognitive markers. To scrutinize the narrative content and organizational structure, Diagraph 1 is classified into three diagraphs containing utterances made from first- and second-generation stances with corresponding subjectivities.

Diagraph 2 is an excerpt of the horizontal lines that reflect the evaluations made with first-generation subjectivity. The narrator's father's first-generation evaluation of the enemy soldiers is, "The soldiers unnecessarily wore on their wrists many watches that they had stolen from the Japanese."

Diagraph 2: First-Generation Stance

		Theme			Rheme		
1		*sono tokei o*		*migite nimo hidarite nimo ude nimo*			
		the watch OBJ		right hand on too, left hand on too, arms on too			
2			*ippai,*		*kou,*	*tsukete iru*	*to.*
			many		DEM	wearing	QT
3			*nanko mo nanko mo nanko mo*	*ude, ude ni,*		*tsukete iru*	*tte itte.*
			many many many	arms, arms on		wearing	QT say and
8	*sono,*			*te, ude ju: ni,*	*kou,*	*tsukete iru,*	
	DM			hands, arms, all over, on	DEM	wearing	
9		*nihonjin kara,*			*kou, ne,*	*ubatta mono o,*	+2
		Japanese from			DEM FP	stolen item OBJ	
10				*ude ju: ni,*	*kou,*		
				arms, all over, on	DEM		
12		*kou yatte*	*nanko mo,*				
		like this	many				
13			*ikko de ii noni ne,*			*tokei wa*	*tte itte.*
			one good enough but FP			watch TOP	QT say and
16	*de,*		*konna ni*	*ude ni*		*tsukete iru n da*	*toka itte*
	and		this much	arms on		wearing N COP	or say and

Textual, Interpersonal **Demonstrative** **Evidential**

quantifier body part+locative *ni*

<The soldiers unnecessarily wore on their wrists many watches that they had stolen from the Japanese.>

Judging from the content, these lines directly reflect the narrator's father's descriptions based on what he had directly experienced or witnessed. Principally, the narrator reports his father's depiction of the enemy soldiers. First, the non-colored part includes information categorized into themes and rhemes. The theme section includes watches, Japanese, numerousness, and arms and hands, while the rheme section incorporates wearing and robbing. These construct the main body of the first generation's subjective evaluations of enemy soldiers. Within each column, the repetitive use of certain features can be observed. In the theme section, the resonance of stance quantifiers *ippai* and *nanko mo* (many) that intensify numerousness leads to the evaluative comment "one is good enough, isn't it?" in line 13. This intensity is amplified by another resonance in the column of "body part and locative particle *ni.*" Starting from *migite nimo hidarite nimo ude nimo* (on right hand too, on left hand too, on arms too) in line 1, the repetitive use of *te* (hands)*, ude* (arms), *ude ni* (on arms), *ude ju:ni* (all over the arms) amplifies the unusual behavior of the enemy soldiers. In the rheme section *tsukete iru* (wearing) repeatedly appears. Second, the rest of the vertical columns (colored pink) connect these pieces

of information to organize a narrative structure. The middle column between the theme and rheme contains the demonstrative adverb *kou* (this way) that connects the speaker and hearer in terms of the spatial–temporal axis. Events from the past are carried into the present conceptually, as the narrator does not actually physically re-enact them.[3] This demonstrative *kou* assumes the function of a discourse marker that directs listeners to focus on what follows—in this case "wearing"—emphasizing that the enemy soldiers were indeed wearing numerous watches. The column on the extreme right mostly contains evidential markers, including quotative particles (*to*, *tte*) and *say* verbs (*itte*), which explicitly attribute the descriptions and evaluations to his father. The *say* verb is suffixed with a conjunction particle *-te* (and) representing continuity. The column on the extreme left contains textual and interpersonal connectives: a discourse marker and a conjunction *and*. They organize the oral narrative text.

In addition to the themes and rhemes that compose the main body of the narrative, evidentials and demonstratives also play significant roles to directly attribute the evaluations to the first generation and direct listeners to experience first-generation emotions. In each column of different functions of the narrative, resonance is observed.

Meanwhile, Diagraph 3 excerpted the horizontal lines that are evaluations containing the second-generation narrator's subjectivity. The narrator's message is, "I heard my father recounting about the enemy soldiers being strange, insane, and lacking common sense."

Diagraph 3: Second-Generation Stance

			Theme				Rheme			
4				*henna koto o suru*	*tte,*	*iu ne,*	*rei*		*de.*	+1
				strange thing OBJ do	P	mean FP	example		and	
5	*maa,*			*okashina hito tachi*	*tte,*	*iu,*	*rei*		*de*	*ne,*
	DM			insane people	P	mean	example		and	FP
6				*sou*		*iu,*	*rei*		*ga*	*ne,*
				such		mean	example		SUB	FP
7			*i- ippai*					*detekuru*	*n desu*	*yo.*
			m- many					appear	N COP	FP
14	*sono,*			*jo:shiki*	*to,*					
	DM			common sense	P					
15				*jo:shiki hazure*	*tte,*	*iu huuna*	*koto o*	*sugoi itteru*	*wake desu.*	
				common sense lack	P	mean like	thing OBJ	very much saying	reason COP	
17	*kekkyoku*	*boku ga,*								
	after all	I SUB								
18		*kiiteru*	*boku ga,*							
		listening	I SUB							
19				*henda ne*	*tte,*	*omou youna*				
				strange FP	P	think like				
20							*kanji*		*nano*	*ne.*
							impression		AUX P	FP
21							*mono ii*		*desu*	*yo.*
							manner of speaking		COP	FP
	Textual, Interpersonal				**Meta**				**Cognitive**	

<I heard my father recounting about the enemy soldiers being strange, insane, and lacking common sense.>

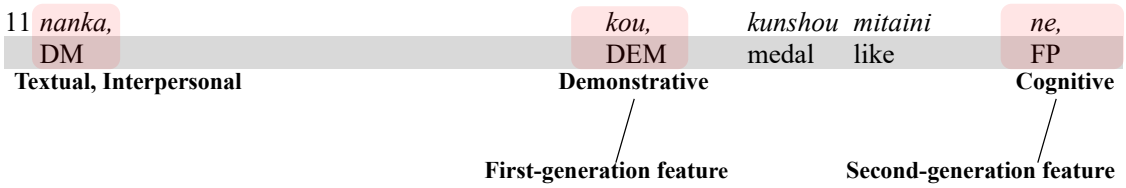
First, in the non-colored portions, the narrator's depiction of his father recapitulating about enemy soldiers emphasizes that their actions are strange (*henna*) (line 4), that they are insane (*okashina*) people (line 5), and lack common sense (*jo:shiki hazure*) (lines 14 and 15). The narrator *boku* (I) who was listening to his father's story is specified as a subject of these

[3] Hoshino, Tajima, & Takasaki (2022) reported that among the 1,781 occurrences of *kou* that they examined, 911 were adverbial use, preceding verbs, while 870 were categorized as not (often without gesture) and function as fillers to gain attention to or prompt the succeeding utterance. The *kou* in Diagraph 2 has a verb to modify but does not accompany gesture, thus falls on a continuum between a demonstrative adverb and a discourse marker.

evaluations, by being marked with a nominative case-marking particle *ga* (lines 17 and 18). The rheme column illustrates that the narrator is positioning himself at a meta-level to objectively comment on how his father recalled the events, by repetitive use of *rei* (example) with the expressions *kanji* (impression) and *mono ii* (manner of speaking). Second, the vertical columns colored pink connect the evaluations to organize a narrative structure. The middle columns between the theme and rheme encompass the repetitive use of meta-stance expressions "mean," "think," and "like," to denote the nature of the evaluations as interpretation and approximation. Although the particles *tte* and *to* share morphological features with the quotative final particles present when examining first-generation subjectivities in Diagraph 2, the ones in Diagraph 3 are nominalizing particles that connect between theme and rheme. The column on the extreme right contains final particles *ne* and *yo*, in contrast to the repetitive use of the quotative markers in the column on the extreme right of first-generation evaluations in Diagraph 2. The particles *ne* and *yo* work on the listener's perception to accept the narrator's view, according to Izuhara (2003). *Ne* assumes that the listener accepts the speaker's perception, and through the process of seeking the listener's consent, it functions to draw the listener into the speaker's cognitive domain. *Yo* influences the listener's perception to induce certain changes, or encourage a specific action. In lines 5 and 6, the narrator has evaluated the enemy soldiers as strange and insane by judging from his father's narration. With the final particle *ne*, the narrator draws the listener into his cognitive domain, seeking alignment from the current audience, in an attempt to extend the already-established intersubjectivity between his father and himself to embrace the current audience. In line 7, using the particle *yo,* the narrator expects the listener to realize that he viewed his father's narration as full of examples that the enemy soldiers were strange and insane. In lines 20 and 21, using the particles *ne* and *yo*, the narrator expects the listener to accept his impression that his father's oration was full of resentment toward the enemy soldiers. In the column on the extreme left, discourse markers fulfill the textual and interpersonal connective work; and an adverb *kekkyoku* "after all" or "in the end" sums up the ordering and narrative causality.

Additionally, Diagraph 4 reveals that line 11 is a combination of the first- and second-generation grammatical features that was observed in the previous two excerpts.

Diagraph 4: Mixed Stance



The demonstrative adverb *kou* was the first-generation feature in Diagraph 2. When combined with a discourse marker *nanka,* it often assumes a set use of a discourse-marker *nanka kou* and co-occurs with an approximation marker *mitaini,* as observed in Diagraph 4. The final particle *ne* was the second-generation feature in Diagraph 3.

Diagraphs 2, 3, and 4 are interconnected and construct Diagraph 1 within a narrative that contains layered stances, encompassing the first-generation's depiction and evaluation of past events, alongside the second-generation narrator's personal evaluation of both the events and past narrative retelling. The narrator recounts the first generation's subjective evaluation of the threat and chaos through repetitive phrases featuring evidential quotative markers and

demonstratives, whereas the narrator's evaluation involves meta-level stances, with the particles affecting the listener's cognition to accept the narrator's view.

Discussion

The spontaneous oral narrative that the narrator develops appears seemingly irregular, marked by frequent stumbling, repairs, and repetitions, as observed in (1). It seems to possess an unplanned haphazard structure, which has often been mistakenly attributed to daily language. However, when spread out on diagraphs, its systematic nature is revealed. Linguistic resources with various functions are resonated, paralleled, and structured in paradigmatic and syntagmatic grammatical relations, across multi-layered rows and columns. Correlations between linguistic features and the first- and second-generation narrator subjectivities are clearly mapped through marked resonance. The narrator's stance shifts over time, with evaluations from each stance organized within the narrative structure, as represented in the diagraphs.

Diagraph 1 illustrates that the narrative features of the first and second generations, which past studies examined independently, appear together in the inherited-memory narrative in a cyclical order, with specific linguistic resources accompanying each narrative features. In the present data, when recounted with first-generation subjectivity, a chaos of emotion, absolute forces and unreason, ultimate things without cause or motive (Hoffmann, 2004) appear with intensity, while with second-generation subjectivity, distanced and meta-level stances (Sicher, 2000) are often included. What was extracted in Diagraph 2 was more of a depiction of "truthful" facts, when the narrator positions himself as his father's spokesperson to convey the information he had received from his father. He uses intense and amplified resonance, filled with repetition and exaggeration, to describe how the enemy soldiers' behaviors were extremely unreasonable, which reflects his father's original evaluation. The narrator attributes factuality and fidelity to his father using evidential markers, while using demonstrative markers to render reality. Here, the evaluation is supposedly based on his father's subjectivity, but is conveyed through the narrator's linguistic choices, aiming to elicit an empathic response from the listener. The intersubjectivity between the narrator and his father further arouses intersubjectivity with the listener. Meanwhile, what was extracted in Diagraph 3 was the narrator's personal evaluation of his father's story and the manner in which it was narrated. Here, he positions himself as a receiver of his father's story. He repeatedly uses evaluative words such as "strange," "insane," "common sense," the meta-talk expressions "example," "impression," "manner of speaking," and the final particles that invite listeners' cognitive engagement. With his evaluation from his personal stance, he induces the listener's empathic intake of what he presents, arousing intersubjectivity between them.

Furthermore, the organizational elements of the narrative are positioned across the two diagraphs, as vertical mappings in resonance. These include textual and interactional expressions, elements linking theme and rheme, meta-stance features, and evidential or cognitive markers, depending on the subjectivity involved. In this manner, the multilayered structures with syntagmatic and paradigmatic grammatical relations, effectively construct a cohesive narrative.

Conclusion

In the narrative of inherited memories, participants from the past and present are jointly engaged in the retellings of events within a complex structure that includes both objective

events and personal evaluations. It reflects the subjectivity of the narrator and the first-generation original experiencer. In addition to first-generation evaluations of the events, the narrator introduces his own evaluations in a cyclical manner, developing an intersubjectively-constructed narrative. Their intersubjectivity enhances emotional involvement and engagement, fostering alignment with the third-generation listener, leading to tripartite intersubjectivity as the goal of narrative telling.

Besides, the narrative of inherited memory is not based on the narrator's direct experience; thus, the narrator's accountability is limited, and the first generation occupies much of the intersubjective space as a premise. Simultaneously, it represents a potentially transitional process where subjective accountability is assumed, and the narrator's interpretation and evaluation are intertwined. Ultimately, the narrative of inherited war memory is an integration of memory, stance, emotion, empathy, and language.

Acknowledgements

This study was launched in conjunction with Nir Bracha. We compared the narratives of inherited war memories of Holocaust and Japanese war experiences (Nir & Sakita, 2022). I express my gratitude to her for the valuable insights she provided in developing the concept for this study. The research was funded by Grant-in-Aid for Scientific Research (C) [23K00536] from the Japanese Ministry of Education, Culture, Sports, Science and Technology.

References

Bakhtin, M. M. (1981). *The dialogic imagination: Four essays*. In M. Holquist (Ed.) (C. Emerson & M. Holquist, Trans.). Austin: University of Texas Press.

Bruner, J. (2008). Narrative, culture, and mind. In D. Schiffrin, A. De Fina, & A. Nylund (Eds.), *Telling stories: Language, narrative, and social life* (pp. 45–50). Washington, DC: Georgetown University Press.

Du Bois, J. W. (2007). The stance triangle. In R. Englebretson (Ed.), *Stancetaking in discourse: Subjectivity, evaluation, interaction* (pp. 139–182). Amsterdam: John Benjamins.

Du Bois, J. W. (2014). Towards a dialogic syntax. *Cognitive Linguistics*, *25*(3), 359–410.

Du Bois, J. W., & Kärkkäinen, E. (2012). Taking a stance on emotion: Affect, sequence, and intersubjectivity in dialogic interaction. *Text & Talk*, *32*(4), 433–451.

Harré, R. (2008). Positioning as a metagrammar for discursive story lines. In D. Schiffrin, A. De Fina, & A. Nylund (Eds.), *Telling stories: Language, narrative, and social life* (pp. 51–56). Washington, DC: Georgetown University Press.

Hirsch, M. (2008). The generation of postmemory. *Poetics Today*, *29*(1), 103–128.

Hoffmann, E. (2004). *After such knowledge: Memory, history, and the legacy of the Holocaust.* New York: PublicAffairs.

Hoshino, Y., Tajima, A., & Takasaki, M. (2022). Actual use of the deictic words (ko, so, a, do) are used in the corpus of everyday Japanese conversation. *NINJAL Research Papers*, *23*, 99–117.

Izuhara, E. (2003). Final particles “yo” “yone” “ne” revisited. *The Journal of Aichi Gakuin University, Humanities & Sciences*, *51*(2), 1–15.

Johnstone, B. (2007). Linking identity and dialect through stancetaking. In R. Englebretson (Ed.), *Stancetaking in discourse: Subjectivity, evaluation, interaction* (pp. 49–68). Amsterdam: John Benjamins.

Labov, W. (2008). Where should I begin? In D. Schiffrin, A. De Fina, & A. Nylund (Eds.), *Telling stories: Language, narrative, and social life* (pp. 7–22). Washington, DC: Georgetown University Press.

Nir, B. (2017). Resonance as a resource for stance-taking in narratives. *Functions of Language*, *24*(1), 94–120.

Nir, B., & Sakita, T. I. (2022). A crosslinguistic study of intersubjectivity: Stance-taking in Japanese and Israeli narratives based on inherited war memories. *Conference handbook of the 23rd annual international conference of the Japanese Society for Language Sciences*, 49–52.

Sakita, T. I. (2006). Parallelism in conversation: Resonance, schematization, and extension from the perspective of dialogic syntax and cognitive linguistics. *Pragmatics & Cognition*, *14*(3), 467–500.

Sakita, T. I. (2013). Discourse markers as stance markers: *Well* in stance alignment in conversational interaction. *Pragmatics & Cognition, 21*(1), 81–116.

Sakita, T. I. (2017). Stance management in oral narrative: The role of discourse marker *well* and resonance. *Functions of Language*, *24*(1), 65–93.

Schiffrin, D. (2006). *In other words: Variation in reference and narrative*. New York: Cambridge University Press.

Sicher, E. (2000). The future of the past: Countermemory and postmemory in contemporary American post-holocaust narratives. *History & Memory*, *12*(2), 56–91.

© The International Academic Forum 2025
The International Academic Forum (IAFOR)
Sakae 1-16-26-201
Naka Ward, Nagoya, Aichi
Japan 460-0008
www.iafor.org