

*Investigating the Learning and Cognitive Process With Phenomenography:
A Case Study of a Visual Experimental Research Course*

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

The European Conference on Arts & Humanities 2022
Official Conference Proceedings

Abstract

Experiential learning theory emphasizes on the importance of learning through experiences and reflection. Recently, the question of how to implement a teaching strategy has attracted great attention from educators. In this study, we designed a course on the theme of death. During this course, students were expected to learn reflectively and eventually create a video to interpret their conception of death for digital advocacy. To evaluate the course's effectiveness, we used phenomenography and iconology as a tool for rolling action research for different course stages. The results suggest that designs of experiential learning activities made the students' interpretation of death more positive, while creative practices encouraged students to focus on presenting their understandings with a higher level of certainty.

Keywords: Experiential Learning, Phenomenography, Cognitive Process, Iconology

iafor

The International Academic Forum
www.iafor.org

Introduction

The rapid evolution of industrial environment and the progress of information technology have not only come to change the social structure, but have also come to enhance consumers' awareness of social responsibility. In this context, designers need to shift their focus from designing an object to serving the general public (Xu, 2018). In Taiwan, the vocational education imparted to designers ignored the development of thinking, in-depth analyzing, and exploring abilities. The one-way teaching approach implied insufficient teacher-student interaction and scant attention towards the idiosyncratic learning needs (Zhang, 2019). Without practical experiences and skills, students will have a bumpy start in their careers (Hong, 2019). Changes in pedagogical forms and concepts are necessary to tackle the existing issues. Experiential learning has gained momentum in school education in recent years. Dewey (1938) believed education to be a process for students to construct knowledge, acquire skills, and improve their self-value through experiences (Wu, 2009). Some scholars proposed the introduction of experiential learning, an approach centered towards students and communities, and the enhanced efforts for developing individual capabilities and assuming social responsibilities. Reflection and critical thinking were deemed as important for students to acquire and internalize knowledge (Wang, 2006; Zhang, 2017).

In the past, advocacy was the most common means through which the disadvantaged groups made demands and achieved their goals. However, typical social issues could not be fixed by a single group. Government support and public engagement were needed to discuss issues from various perspectives (Li, 2018). In the digital age, we can use communication technology to increase efficiency. Specifically, Internet and digital technologies can be employed to produce and disseminate information, while traditional advocacy provides a means to organize, mobilize, coordinate, and integrate people (McNutt, 2008). However, with regard to shocking effect, ubiquitous death-related news and other created content on the media and internet have exaggerated the pain and terrifying experiences of death. They have come to fuel people's fear of death. The general public may suffer greater physical and mental harm as the fear is felt in addition to the many troubles caused by the sudden loss of their loved ones or others as well as disharmonious families before the death, thus, becoming more resistant and avoidant toward death-related issues (Gong et al., 2011). Cultures around the globe interpret death differently, thus, people tend to have different views on, approaches to, and emotions toward death (Li, 2005). With easy access to the Internet, communicating and embracing a variety of values should be an important feature of a modern society. Reviewing the current education system and the contents covered by it is necessary to highlight the respective feature.

In summary, experiential learning should be one of the focal points of curriculum design today. Students should be aware of the current social issues and be capable of using digital media to assume the social responsibilities of being socially influential. This study focused on the experimental video creation and research course of the National Yunlin University of Science and Technology as the research site. Upon the completion of the course, students should enhance their ability to deal with specific social issues by telling stories that are based on self-experiences via digital videos. The course was developed around the theme of "death." Through video design, content analysis, and re-creation for advocacy, students were required to improve their public understanding of death. The course was designed based on Kolb's experiential learning cycle, and the action research was the main tool for evaluating the teaching performance. However, action research is less effective in examining the teaching activities dynamically and also less relevant and effective in promoting reflective

learning (Zhang, 2021; Zhang et al., 2019). To showcase the outcomes and identify problems, other methods are needed to supplement action research (Bernstein, 2018; Dilletta & Sipe, 2018). Therefore, in this study, I collected data by including an image questionnaire to be answered mainly by sketches. Through analyzing the images, it is possible to reveal the ideological consciousness reflected or implied by the changes of works from different cultural systems and various stages of a particular civilization (Li, 2008; Zhang, 2020). Therefore, this study aimed to do the following: (1) discuss how the experiential learning theory can be applied in the planning and teaching of a curriculum with equal emphasis on theory and practice and then examining the outcomes; and (2) understand the relationship between the course design and students' learning and cognitive development process by adopting the action research method supplemented by phenomenography, thus, discussing how the combined method can be used in evaluating the teaching practices.

Literature Review

Digital Advocacy

Instead of just carrying concerns over various social issues, advocacy is a kind of an individual or a group activity to support and express ideas and needs for the promotion of economic and social justice (Berry, 2003). The targets identified by an advocacy are often in line with the social expectations. They could be attained through enhanced educational activities and campaigns. Obviously, an advocacy would be more influential if it is more capable of triggering strong emotions and empathy, thus, making the targets more reachable. For an advocacy, the means and information necessary to promote the identified topics and targets are critical for ultimately influencing the policy, the audience, and the general public. A valid message could persuade the audience to think or act in a way that leads to changes (United Nations International Children's Emergency Fund, 2018). The advent of the digital era has fundamentally changed the operation of advocacy. Enabled by digital technologies, many messages can be instantly transmitted to the public. Disseminating information digitally for advocacy is known as digital advocacy. Digital advocacy covers many professional areas of digital design, such as online platform establishment and web page design, social media and planning and designing of media content, and interactive technologies and audio and video production. They are the design technologies that are integrated and applied to meet the social requirements (Bowen et al., 2017). Projects such as Connecting Voices, funded by Hivos in 2017, promoted digital advocacy through blogs and social media campaigns to improve democratic governance, protect civic space, demand government accountability, and uphold the local freedom of expression and social justice (Pollicy, 2018). Therefore, the course of this study will leverage the advantages of production and communication with new media to distill and communicate the theme of advocacy.

Death Education

Death education has gradually become a subject of school education in Taiwan, aimed to provide relevant resources to help people tackle the emotional crisis caused by death around them (Zhang, 2019). People are afraid of sudden harm and death experiences. The physical and psychological impact and sadness are difficult to alleviate. However, the media plays a dominant role in influencing people's attitude towards death with quick dissemination of information over the network. People are less likely to be able to judge the appropriateness of the information and its influence to themselves. They need to reflect their past experience and future goals based on the proper understandings of death, so as to learn to treasure what they

have at the moment and plan the next step rationally and thoughtfully under confusing and worrisome situations. Also, they need the ability to accept “normal grief.” Many scholars have called for the need to have death education based on these needs (Wu & Huang, 2001; Zhang, 2019). Death education offers the opportunities to know about the death attitudes of different cultures and ethnic groups. As a result, people can enhance their psychological capacity to deal with death. In addition, knowledge of the psychological changes that take place before death and the ability to analyze the changes are also useful. An optimized funeral for oneself or a family member could reduce the burden on the family and society. The counseling services help family members recover from the bereavement and resume normal life.

Finally, the education of the “world after life” encourages people to understand death from the perspectives of material transformation and spiritual significance, reducing the meaningless fear and worry caused by death and helping people realize that death is inevitable (Zhou & Huang, 2009). Therefore, by discussing the value of life and reducing the anxiety surrounding death, death education could help people take care of their mental and physical needs and maintain a good balance between them. Furthermore, people are expected to be aware of the emotional changes taking place while facing death, and thus, understand and recognize such changes. The ultimate goal is to have people cherish and respect life while developing their own philosophy of life (Qiu, 2006). Also, improving the psychological preparedness of family members and patients involves informing and guiding individuals to make choices during the transition of life (Li, 1999; Yang, 2017). While planning the course for this study, we expected students to integrate the theme of death in their lives. They should be able to communicate and discuss the topics related to death and the planning and arrangement for their final trip with respect, inclusiveness, and positive attitudes before the death of their loved ones or themselves. Moreover, through group discussion and creation, students should reflect on their own course of life, and thus, face life and living with a more productive and positive mindset.

Based on the analysis of the literature, we formulate the following five goals and concepts of death education. It was expected that the completion of each module of the course could bring some changes in students’ understanding of death-related topics.

1. Understanding that death is inevitable: death is bound to happen. People should learn to face it both physically and emotionally.
2. Capable of facing the death and parting of others: death cannot be experienced, it needs to be described and observed from the outside, usually the departure of relatives or pets. It is necessary to avoid the ignorance of the current mood. Particularly, we need to reduce fear, sadness, and regret, and guard against the loss of enthusiasm for life. After these events, we should care for our relatives and friends.
3. The importance of pre-death planning: since death is inevitable, both the parties concerned and their families should have a psychological preparation by understanding and guiding the choices they make during the transition of life to avoid any regrets.
4. Being able to discuss feelings about death: people are afraid of the sudden harm and death experience given the fragility of life and the lack of understanding of the essence of life. Media manipulation makes the fear of people even more terrible. The physical and psychological impact and sadness are difficult to alleviate. We expected the different teaching materials and created content to be able to abate the negative mindset.
5. Capable of talking about the constructs of death: due to the inability to experience death, people’s imagination of the post-death world mostly comes from religious experiences or

the experiences of a few people. Such uncertainty also creates mystery or worry and fear. Through the course, we expected the constructs to be mostly positive or people to divert their attentions to taking care of their emotions and pre-death planning.

Iconology

Images are inseparable from our life. They showcase the lifestyle of a culture. In a modern society, images, like words, can also be used to communicate and preserve information as well as present personal experiences and ideas (Li, 2008). Cognitive studies indicated people to be more interested in images, and visual thinking emphasized on the overall comprehensive ability of vision. It does not exclude the role of words and intuition in learning, and provides non-verbal learners another means of communication and expression. It is used to improve the communication and expression that otherwise required many words or are ambiguous (Wu, 2016; Huang, 2000).

Iconology was an important art research method in the first half of the 20th century. It originated from iconography and developed into a comprehensive and descriptive study of the theme of visual art until the 20th century. It emphasizes the rationality of images and focuses on the theme of artistic works and the deep meaning these works reflect, and thus, explores the ideological consciousness reflected in the framework of a cultural system and the changes of civilizations at various stages (Zhang, 2020; Zhou, 2006). Panofsky believed iconology to be an objective way to discover and elaborate the symbolic values hidden in visual forms, and divided the analysis of an artwork into three levels in accordance to the characteristics of graphics: (a) description, (b) analysis, and (c) interpretation of the inner meaning and content of the artwork (Zhu, 2012; Zhang, 2020). Since iconography has been established as a widely adopted research method for studying students' learning concepts, using sketches as an indirect procedure to collect data in social studies is justifiable (Feldon & Tofel-Grehl, 2018; Cox, 1981; Cox & Parkin, 1986; Harrison et al., 2007; Khan et al., 2019). For this study, image data can offer insights on students' cognitive process and different learning concepts (Selwyn et al., 2009; Hsieh & Tsai, 2018). By supplementing action research with an image questionnaire for teaching practices, this study could be able to gauge the impact of the course design with different methods.

Experiential Learning

In school life, the pattern and design of a curriculum restrict the learning effect and have a direct impact on the moral character generation, ideological transformation, and technical training of students, which are the basic requirements to realize the controllability of education (Kuang, 2007). Under the pressure of social change and responsibility, there is a need for education to also be reformed. In western countries, experiential education has been implemented for many years. In the teaching process, the combination of actual living environment and experience is used to experience and learn with real feelings, and this teaching mode has developed into an important part of the school education curriculum (Hsieh et al., 2007). Kolb called such experience-oriented educational learning theory "experiential" learning and defined experiential learning as "the process of constructing knowledge." This learning process involves a creative tension between the four modes of learning in response to the situational demands. The holistic idea fuses the concrete experience of being the best teacher with the concept of acquiring knowledge through critical thinking and reflection (Dillette, 2018). Fundamentally, it can be traced back to "learning by doing" proposed by Dewey (1938). He argued learning to be a process of constantly

reorganizing and changing our experiences. It is a process of transforming experiences into knowledge, skills, and attitudes, and achieving reflections, actions, and interactions between individuals and situations while making sense of the experiences (Wang, 2006; Huang and Su, 2017).

Based on the learning and cognitive development theories of various scholars, Kolb developed a staged cycle diagram of experiential learning. The four stages in the cycle are: after encountering a “concrete experience,” individuals would perform a “reflective observation” for analysis; then, “abstract conceptualization” is carried out, which refers to the processing of obtained information and developing it before the final stage of “active experimentation” (Wang, 2006; Li et al., 2011). Based on these four stages, this study designed a course of experimental video and research, which included multiple teaching methods and textbooks. With learners as the center of teaching and death as the theme, the purpose of death education can be achieved by exchanging and reflecting on the past experiences. By supplementing the assessment with sketches, we extended the means of expression beyond instant oral expressions and words by including images for recording and reflection.

Methods and design

Research Site and Participant

This study focused on the Digital Media Design Institute, National Yunlin University of Science and Technology as the research site and the students from the experimental video creation and research course as the participants. The number of students enrolled in the course is 17, comprising of three doctoral students and 14 master students. The students came from three different design departments and university majors, including visual communication design, product design, game design, and information management. All the doctoral students had working experience. In addition, all the participants signed the informed consent form.

Research Methods

This study was carried out via action research, and the results of the three tests were examined using phenomenography. Also, content analysis was adopted for data analysis. Action research provides a process with a series of actions to solve the problems step by step. Researchers can construct knowledge by addressing the practical problems in the process. However, the unique learning process requires the studying and observing of research area through real actions (Wang, 2020). Action research was adopted to improve teaching and achieve two learning objectives. The first is the resolving of internal issues identified through each round of reflection. To ensure the effectiveness of collaborative learning, it is critical to set rules and assign responsibilities that are deemed appropriate. A manager should be selected for each group to oversee the development of a team-specific operating system, which can be employed to resolve the internal issues effectively (Tseng, 2012). Second, students are required to generate new knowledge and discard the traditional learning framework. In the advocacy process, they should care for the society, humanity, and environment from different perspectives so as to enhance the ability to detect and reflect issues (Skerritt & Perry, 2002).

The image questionnaire does not have any requirements with respect to the students' drawing skills. They only need to produce sketches within the time limit by being faithful to their thoughts at the moment. The image analysis of this study is drawn from the three levels proposed by Panofsky by focusing on the inherent meaning or content, and integrating the concepts of iconography with the historical synchronic view, so as to focus on the influence of cultural or event changes and development in a specific stage (Zhou, 2006). Through action research, in addition to guiding students to reflect at each stage, researchers can analyze the image questionnaire and keywords. By matching the course content with the teaching log, we could identify the teaching issues or their implications in the context of the actual situation and events at the time.

Procedures

The course was divided into three stages: introduction and text analysis, conceptual prototypes, and design implementation and exhibition. Students were required to read and analyze the text objectively, communicate and discuss their reflections, and reconstruct their self-cognition and expression. Three reflection feedback points were established for the action research. At each point, students were required to participate in an image analysis test, which was carried out in about 10 minutes before the end of the class. The question of "drawing a picture to explain what death looks like to you" was identical for the three tests, with the aim being to guide students to think about their imagination about death. Students were required to draw the construct of death on the left side. They were also required to include 7-15 keywords in the space on the right to describe the image. After that, they would share the sketches with another teammate, who would assist the participant to add more keywords after the discussion. Each test took about 10-15 minutes.

The course design of this study is based on the four cycles of experiential learning, and focuses on the reflection of learners. The participants were required to review their experiences and derive rules and results from them via reflection. Subsequently, they were required to apply the results to relevant situations or even their lives (Li et al., 2011). The course so designed had different arrangements and objectives for different stages (Figure 1). The "introduction and text analysis" as the first stage is the starting point of the course. The focus in this stage is the acquisition of concrete experiences. Participants were expected to generate new ideas based on the theoretical knowledge of advocacy, curating, digital development, as well as case sharing. Also, they should re-organize their experiences and knowledge via the discussion and reflection of death in different cultures. These activities offer the foundation for understanding the death concepts in classrooms and curating the advocacy. The second stage "conceptual prototypes" has digital teaching materials and expert speeches. Students had the opportunities to conduct in-depth discussion on the topic of death and tried to propose curatorial plans. Finally, they worked in groups to conceptualize death and come up with detailed plans after reflection. Lastly, in "design implementation and exhibition," students were required to design and curate based on the three groups of themes decided as per the areas identified in prior stages. They were required to launch an advocacy exhibition based on the theme of death.

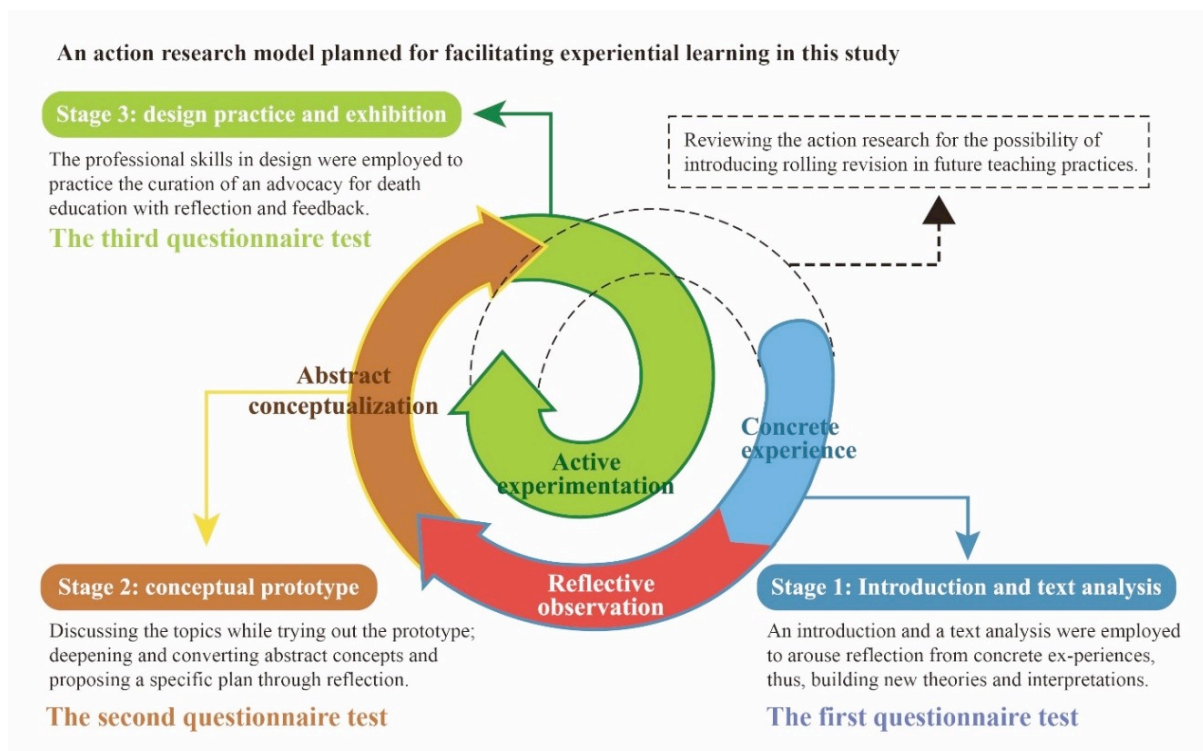


Figure 1 An action research model planned in this study for experiential learning.

Data analysis and results

The keywords from the three image tests were allocated semantically after open coding based on the above five categories of objectives related to death education: (A) understanding that death is inevitable; (B) capable of facing the death and parting of others; (C) recognizing the importance of pre-death planning; (D) being able to discuss one's feelings about death; and (E) capable of talking about the constructs of death. Subsequently, the data collected systematically were summarized and discussed (Table 1). We retrieved 537 keywords from 52 image questionnaires. Within each category, the keywords were further classified as positive or negative ones to characterize the emotions and feelings in the face of death, the death experiences related to themselves or others, and the imagination of the world after death. By denoting the negative constructs in the five categories as A1, B1, C1, D1, and E1, respectively, and similarly the positive constructs as A2, B2, C2, D2, and E2, we obtained ten types of constructs.

Positive and Negative keywords

The total number of positive keywords in Test 2 increased to 136 (Table 1). While the number of negative keywords also increased (Figure 2), the increase was minimal in the category of "feelings for facing others' death." This points to an effective death education in improving psychological preparedness as the reflection of texts and individual cases from an objective perspective during the second stage as well as group discussion, which may have changed the students' interpretation of death.

Table 1
Comparison of the negative constructs from the three tests

| <i>General classification of the concepts Objects</i> | <i>Positive or Negative</i> | <i>Test 1</i> | <i>Test 2</i> | <i>Test 3</i> | <i>Sub-total</i> |
|---|-----------------------------|---------------|---------------|---------------|------------------|
| <i>A. Understanding that death is inevitable</i> | A1 | 3 | 9 | | 14 |
| | A2 | 10 | 35 | 1 | 66 |
| <i>B. Capable of facing the death and parting of others</i> | B1 | 2 | 1 | | 3 |
| | B2 | 8 | 21 | | 37 |
| <i>C. Recognizing the importance of pre-death planning</i> | C1 | 24 | 19 | 5 | 68 |
| | C2 | 24 | 33 | 3 | 90 |
| <i>D. Being able to discuss one's feelings about death</i> | D1 | 24 | 20 | 3 | 77 |
| | D2 | 34 | 33 | 4 | 121 |
| <i>E. Capable of talking about the constructs of death</i> | E1 | 2 | 7 | | 13 |
| | E2 | 17 | 14 | 7 | 48 |
| | Negative | 55 | 56 | 4 | 175 |
| | Positive | 93 | 136 | 33 | 362 |
| | | 148 | 192 | 97 | 537 |

As discussed in the details mentioned below against the course content, the students deepened and broadened their interpretation of death from Test 1 to Test 3.

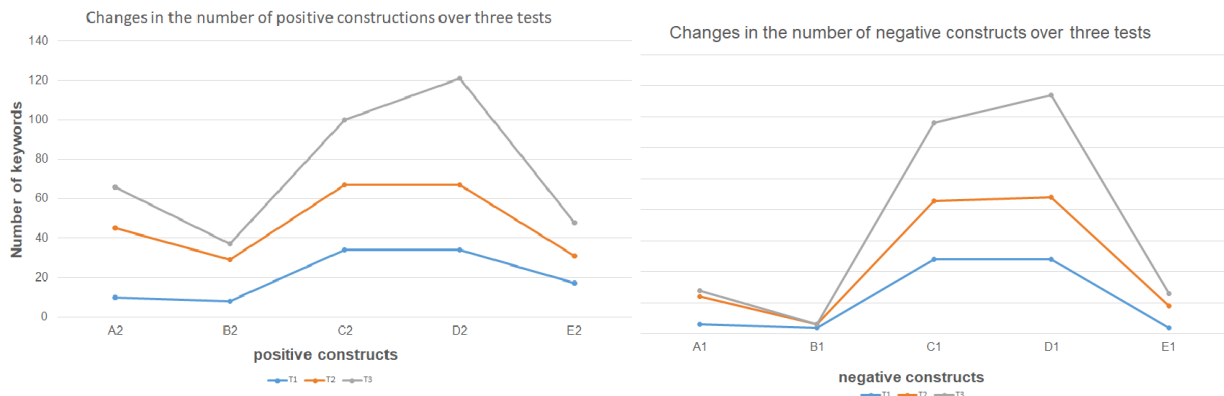


Figure 2 Comparison of the positive constructs from the three tests

Creation stage

Test 3 was conducted during the creation stage. At this point, students have undergone the process of visualizing their knowledge and experiences. Therefore, the death constructs increased to 87, among which 54 are positive ones, which is more significant (Figure 3), suggesting that the video creation process is also an image creation process for the advocacy related to death. However, given the small sample size, the statistical line chart cannot confirm the hypothesis about the relationship between each of the categories and the learning process.

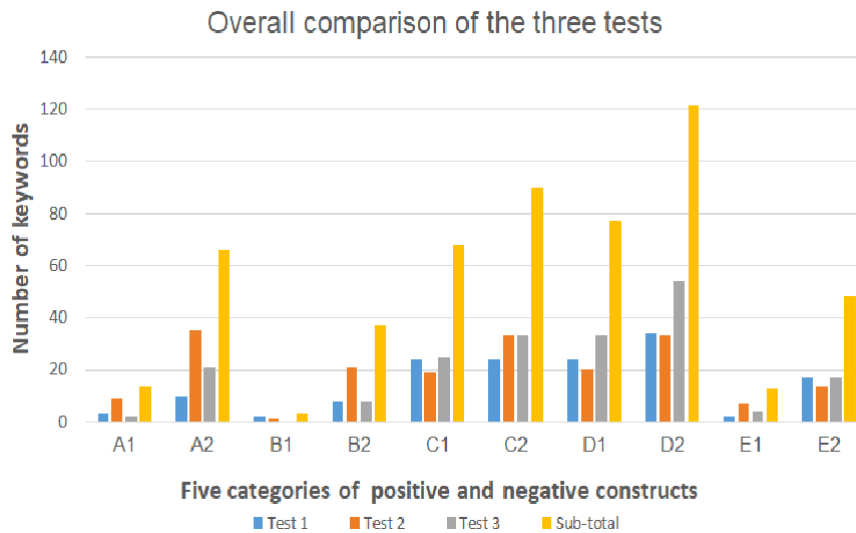


Figure 3 Overall comparison of the three tests

Two categories with a low number of keywords

For the two categories with a low number of keywords (Figure 4), the number of keywords for “C pre-death planning” increased notably, attributable to the discussion on pre-death during the conceptual prototype stage. However, during the creation stage, as the three themes are less relevant to the category, no keywords were allocated to it. Generally, pre-death planning for oneself or others is still a relatively unfamiliar or difficult concept to be expressed in practice. The number of positive constructs in “A death is inevitable” is many times higher than the negative ones.

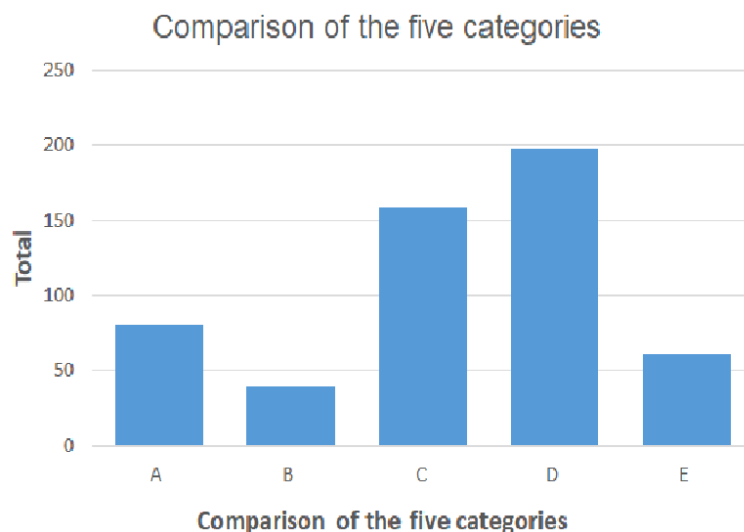


Figure 4 Comparison of the category axes

Summary

The result can be explained from two perspectives. First, the introduction and case analysis as well as the final exhibition of the work of students did not involve an in-depth discussion of the topic. Therefore, both the number of keywords as well as the depth of expression did not change with the delivering of the course. Second, the discussion in the course has always

been objective and rational, thus, there are more positive constructs than negative ones in general.

Conclusion

The exhibition place is in the exhibition space of National Yunlin University of Science and Technology. The theme planning, curatorial activities, and works of the three themed works were completed by the students in the groups. “Reminiscent Corner” combines both virtual and real settings. The area is arranged into a corner of a traditional living room. An interactive sensing technology is used to design a normal microphone that can be used to receive the last words from the departing people. The value of life is elaborated through the content from a database built by the students. “The Last Gift” is presented in VR360 for showing the existence state of a life in the middle between death and the beginning of the next life. Through immersive virtual reality, visitors can reconstruct a life retrospective process, providing viewers with an experience to review their own experience and cherish life. The “Endgame” guides visitors through a complete experience through digital audiovisual media, interactive technology, interactive experience, and reflective feedback. Finally, the visitors are encouraged to show the various choices they can make at the end of their lives.

In addition to these works, phenomenography research suggests that, along with the running of the course, positive changes in the students’ perception of death are significant. It also suggests that creation practice increased the number of death constructs notably. The results indicate that death education is effective in enhancing the psychological preparedness and course design based on experiential learning as it could integrate theories with practices effectively via the stimulation of continuous reflection and review of death concepts during learning. Due to the limited sample size and study time, even we combined phenomenography with action research. We could not discuss specifically and with certainty the association between students’ cognitive types and teaching material design as well as the specific design of reflection activities. Future studies could revise the course and activity design on a rolling basis. Also, this study has the potential to improve the application of phenomenography in teaching practice research.

References

- Bernstein, J. L. (2018). Unifying SoTL methodology: Internal and external validity. *Teaching & Learning Inquiry*, 6(2), 115-126. doi:10.20343/teachlearninqu.6.29
- Berry, J. M., & Arnos D. F. (2003). *A voice for nonprofits*. Washington DC, US: Brookings Institution Press.
- Bowen, G. A., Gordon, N. S., & Chojnacki, M. K. (2017). Advocacy through social media: exploring student engagement in addressing social issues. *Journal of Higher Education Outreach and Engagement*, 21(3), 5-30.
- Cox, M. V., & Parkin, C. E. (1986). Young children's human figure drawing: Cross-sectional and longitudinal studies. *Educational Psychology*, 6(4), 353-368.
- Dillette, A., & Sipe, L. (2018). A systematic framework of experiential learning: Challenging educators to make college more than an aggregation of credits. *Creative Education*, 9(09), 1426-1443. 10.4236/ce.2018.99106.
- Feldon, D. F., & Tofel-Grehl, C. (2018). Phenomenography as a foundation for mixed models research. *American Behavioral Scientist*, 62(7), 887-899. <https://doi.org/10.1177/0002764218772640>
- Gong, Y. L., Chen, J. L., Huang, Y. C. (2011/12) 現代大學生生死觀之初探—以南台灣某科技大學為例[A preliminary study on modern college students' views on life and death: A case study of a university of science and technology in Southern Taiwan.]. 嘉南學報 (人文類)[Chia Nan Annual Bulletin (Humanity)], 2011, 37 期: p. 685-693.
- Harrison, L. J., Clarke, L., & Ungerer, J. A. (2007). Children's drawings provide a new perspective on teacher-child relationship quality and school adjustment. *Early Childhood Research Quarterly*, 22(1), 55-71. <https://doi.org/10.1016/j.ecresq.2006.10.003>
- Hong, Y. W. (2018). 以社會設計的觀點探討台灣設計教育的未來[The exploration of future design education in Taiwan from the perspective of social design.]. 國立雲林科技大學視覺傳達碩士班學位論文, 1-264. <https://hdl.handle.net/11296/pe5v4d>
- Hsieh, C. M., Wu, C. C., & Hsieh, Y. J. (2007). 體驗學習融入休閒教育課程之實施成效研究[Evaluation of the effects for the experiential learning based leisure education courses.]. 運動休閒餐旅研究[Journal of Sports, Leisure, and Hospitality Research], 2(4), 39-50. [http://dx.doi.org/10.29429/JSLHR.200712_2\(4\).03](http://dx.doi.org/10.29429/JSLHR.200712_2(4).03)
- Hsieh, W. M., & Tsai, C. C. (2018). Learning illustrated: An exploratory cross-sectional drawing analysis of students' conceptions of learning. *The Journal of Educational Research*, 111(2), 139-150. <https://doi.org/10.1080/00220671.2016.1220357>

- Huang, S. H., & Su, H. T. (2017). 從推動社區體驗學習反思社會實踐的可能：以阿里山鄉來吉部落的設計工作坊為例[Introspection on possibility of social practice from promotion of experiential learning in communities: A case study of design workshop in Laiji Tribe in Alishan township.]. *設計學報 (Journal of Design)*, 22(3).
- Huang, X. C. (2000). 本土化第五項修練：圖像系統思考[The fifth practice of localization: Image system thinking.]. 臺北：世茂
- Khan, M. S. H., Abdou, B. O., Kettunen, J., & Gregory, S. (2019). A phenomenographic research study of students' conceptions of mobile learning: An example from higher education. *Sage Open*, 9(3). <https://doi.org/10.1177/2158244019861457>
- Kuang, T. S. (2007). 德育過程中體驗學習模式的創設探索[Exploring the creation of experiential learning model in moral education process.]. 中國科教創新導刊[China Education Innovation Herald], (20), 142.
- Li, C. C., Chen C. H, & Shu B. C. (2011). 運用體驗學習提升人文素養-以 [關懷與服務學習] 課程為例[Experiential Learning as a Teaching Strategy to Cultivate Humanity: An Example of Service-Learning Course.]. *醫學教育[Journal of Medical Education]*, 15(2), 134-142. [http://dx.doi.org/10.6145/jme.201106_15\(2\).0007](http://dx.doi.org/10.6145/jme.201106_15(2).0007)
- Li, F. H. (1999). 死亡教育的過去，現在與未來[The past, present, and future of death education.]. *學校衛生[Chinese Journal of School Health]*, (34), 69-88. <http://dx.doi.org/10.30026/CJSH.199906.0004>
- Li, Y. C. (2018). 迎向未來挑戰，歐盟倡議公民參與任務導向創新政策趨勢觀察[Facing the challenges of the future, observation on the trend of the EU's initiative of citizen participation in task-oriented innovation policies.]. *臺灣經濟研究月刊[Taiwan Economic Research Monthly]*, 41(10), 70-77. <http://dx.doi.org/10.29656/TERM.201810.0010>
- Lih, L. C. (2008). 圖像教學對兒童創造力與語文能力影響之研究[A study of the effects of image instruction on children's creativity and linguistic capability. Unpublished master's thesis, Department of Education]. 未出版之碩士論文，高雄師範大學教育學研究所，高雄。
- Lin, C. Y. (2005). 社會文化與悲傷反應[Social Culture and Bereaved Reaction]. *生死學研究第二期[Research on Life and Death]*, P107-127. 台北市. <http://dx.doi.org/10.29844/JLDS.200506.0003>
- McNutt, J. (2008). Advocacy organizations and the organizational digital divide. *Currents: Scholarship in the Human Services*, 7(2).
- Ng, S. S., & Huang, L. H. (2001). 生命教育概論：實用的教學方案[Introduction to Life Education.]. 學富文化[Taipei: Pro-Ed Publishing Co.].

- Pollicy. (2018). *Digital Advocacy: The good, the bad and ugly*. UpToDate. Retrieved from <https://medium.com/pollicy/digital-advocacy-the-good-the-bad-and-the-ugly-f861791030c9>
- Qiu, J. (2006). 生死學討論會對準諮商員生命態度影響研究[Death-and-life Seminar and Its Impact on para-counselors' Attitude toward Life]. 生死學研究[Life and Death Studies], (4), 119-162. <http://dx.doi.org/10.29844/JLDS.200607.0004>
- Selwyn, N., Potter, J., & Cranmer, S. (2009). Primary pupils' use of information and communication technologies at school and home. *British Journal of Educational Technology*, 40(5), 919-932. <https://doi.org/10.1111/j.1467-8535.2008.00876.x>
- Tseng, S. F., & Chan, C. L. (2012). 社會網絡環境與數位協作學習—以 iCamp 為例[Social networking environment and digital collaborative learning: An exploration of iCamp project.]. 數位學習科技期刊[Journal of Digital Learning Technology], 4(3), 61-76. <http://dx.doi.org/10.3966/2071260X2012070403004>
- Voices of Youth. (2018). *How to do Digital Advocacy?*. Retrieved from <https://www.voicesofyouth.org/act/how-do-digital-advocacy>
- Wang S. C. (2020). [文案寫作] 課程之教學行動研究[Action Research in Teaching on Copywriting Course]. 藝見學刊[Art View Academic Journal], (20), 39-49. [http://dx.doi.org/10.6207/ART-VISION.202010_\(20\).039-049](http://dx.doi.org/10.6207/ART-VISION.202010_(20).039-049)
- Wang, C. S. (2006). 體驗學習的理念及其在教育情境的應用[The concept of experiential learning and its application in educational situations.]. 台灣教育[Taiwan Education Review], (640), 32-36. <http://dx.doi.org/10.6395/TER.200608.0032>
- Wu, C. C. (2016). 圖畫書對社會化之暗示-以怪獸圖畫書中的圖畫為例[Construction of Hints of Children's Socialization in Picture Books with Monsters.]. 竹蜻蜓. 兒少文學與文化[Children's Literature and Culture], (2), 149-180. [http://dx.doi.org/10.6738/bdclc.201606_\(2\).0004](http://dx.doi.org/10.6738/bdclc.201606_(2).0004)
- Wu, M. K. (2009). 杜威經驗哲學對課程與教學之啟示[The Insights of John Dewey's Empirical Philosophy for Curriculum and Teaching]. 臺北市立教育大學學報. 教育類, 40(1), 35-54. [http://dx.doi.org/10.6336/JUTe/2009.40\(1\)2](http://dx.doi.org/10.6336/JUTe/2009.40(1)2)
- Xu, C. C. (2018). 以社會設計角度探討工業設計應用於聚落發展之研究-以望安花宅飲食文化推廣為例[Study on settlement development of industrial design from the view of social design- As the example with food culture promotion in Huazhai, Wang'an township.]. 國立雲林科技大學工業設計系碩士班學位論文, 1-119. Retrieved from <https://hdl.handle.net/11296/mwrvbv>
- Yang, F. J. (2017). 死亡教育議題融入動畫鑑賞教學之研究[Integrating death education issues into the teaching of animation art appreciation.]. 藝術研究期刊[Journal of Art Research], (13), 139-166.

- Zhang, K. C. (2021), 教學實踐研究計畫之我見我思：從我的經驗反思[Reflections on the teaching practice research project: reflections from my experience.], 評鑑雙月刊, 92, 9-14.
- Zhang, M. C. (2019). 死亡教育也是素養教育[Death education is also literacy education.]. 臺灣教育評論月刊[Taiwan Education Review Monthly], 8(8), 70-73.
- Zhang, W. J. (2017). 運用擴增實境學習系統支援大學生農村體驗學習之探究[A design of augmented reality learning system to support college students' rural experiential learning.]. 國立臺灣科技大學人文社會學報[Journal of Humanities and Social Sciences, National Taiwan University of Science and Technology], 13(1), 29-64.
- Zhang, X., Fu, B., Cui, M., Huang, S., Chang, S. J., Fwu, B. J., Tsuei, M. P., & Hwang, S. L. (2019). 再論教學實踐研究論文之撰寫重點[Restating the Key Points in Writing the Reports of Scholarship of Teaching and Learning]. 教學實踐與創新[Journal of Teaching Practice and Innovation], 2(1), 1-16.
<http://dx.doi.org/10.3966/261654492019030201001>
- Zhang, Y. (2020). 以圖像學分析印象派畫家莫奈的色感表達[Analysis of impressionist painter Monet's color expression through iconography.]. 美與時代[Beauty and Times]. P72-73.
- Zhang, Y. N. (2020). 運用分組合作學習教學法在大學課程之教學實踐研究[Research on the Teaching Practice of Employing Cooperative Learning Strategy to a University Course]. 大學教學實務與研究學刊[Journal of Teaching Practice and Research], 4(1), 35-75. [http://dx.doi.org/10.6870/JTPRHE.202006_4\(1\).0002](http://dx.doi.org/10.6870/JTPRHE.202006_4(1).0002)
- Zhou, D. X., & Huang X.Y. (2009). 論死亡教育[On death education.]. 職業時空[Career Horizon], 5(1), 168-169.
- Zhou, Z. Y. (2006). 潘諾夫斯基圖像理論之研究[Research on Panofsky's image theory. Master's Thesis, Department of Visual Arts Education]. 碩士論文, 國立屏東教育大學視覺藝術教育學系, 屏東.
- Zuber-Skerritt, O., & Perry, C. (2002). Action research within organizations and university thesis writing. *The Learning Organization*, 9(4), 174-179.
<https://doi.org/10.1108/09696470210428895>

Contact email: RachelLin1223@gmail.yuntech.edu.tw