WEB 2.0 AS AN ONLINE FUN LEARNING TOOLS FOR HERITAGE STUDIES DURING PANDEMIC: COERCION OR CONSENT?

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Abstract

This study evaluated the efficacy of fun online learning methods (FOLMs) in teaching and learning the Introduction to Cultural Heritage (SCM2223) course during the COVID-19 pandemic at Universiti Malaysia Kelantan, Malaysia. This study aims to understand the student's demographic background, awareness, and perception of using FOLMs in SCM2223 during the pandemic. It also uses quantitative and qualitative data collection through surveys and reports. A total of 149 from 211 students who took SCM2223 responded to the survey using stratified random sampling. The data were analysed using Statistical Package for Social Sciences (SPSS). Results highlight that students are ready to fully embark on full time FOLMs without feeling coerced during the pandemic as data triangulation shows that these methods enhance student understanding, comprehension and acceptance of the course. In addition, it increased student interest in learning and, more importantly, encouraged student cognitive behaviour towards the course content and improved overall satisfaction with online teaching methods. Finally, This study provides methods for improving new online learning alternatives, developing good course teaching evaluation reports, and achieving good course learning outcomes (CLO).

Keywords: alternative learning, fun learning method, didik hibur, Google Docs, online learning
WEB 2.0 SEBAGAI ALAT PEMBELAJARAN DALAM TALIAN YANG MENYERONOKKAN UNTUK PENGAJIAN WARISAN SEMASA PANDEMIK: PAKSAAN ATAU KERELAAN?

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Abstrak

Kajian ini menilai keberkesanan kaedah pembelajaran dalam talian (FOLM) yang menyeronokkan dalam pengajaran dan pembelajaran kursus Pengenalan kepada Warisan Budaya (SCM2223) semasa pandemik COVID-19 di Universiti Malaysia Kelantan, Malaysia. Kajian ini bertujuan untuk memahami latar belakang demografi, kesedaran dan persepsi pelajar menggunakan teknik FOLM dalam SCM2223 semasa wabak COVID-19. Ia juga menggunakan pengumpulan data kuantitatif dan kualitatif melalui tinjauan dan laporan. Seramai 149 daripada 211 pelajar yang mendaftar kursus SCM2223 telah menjawab survei menggunakan persampelan rawak berstrata. Seterusnya data dianalisis menggunakan Statistical Package for Social Sciences (SPSS). Keputusan menunjukkan bahawa pelajar bersedia untuk memulakan sepenuhnya teknik FOLM tanpa rasa dipaksa semasa pandemik kerana triangulasi data menunjukkan bahawa kaedah ini meningkatkan pemahaman, dan penerimaan pelajar terhadap kursus SCM2223. Di samping itu, ia meningkatkan minat pelajar untuk belajar dan paling penting, menggalakkan tingkah laku kognitif pelajar terhadap kandungan kursus dan meningkatkan kepuasan keseluruhan dengan kaedah pengajaran dalam talian. Akhir sekali, Kajian ini menyediakan kaedah untuk menambah baik alternatif pembelajaran dalam talian baharu, membangunkan laporan penilaian pengajaran kursus yang baik, dan mencapai hasil pembelajaran kursus (CLO) yang baik.

Kata Kunci: pembelajaran alternatif, teknik pembelajaran menyeronokkan, kaedah didik hibur, Google Docs, pembelajaran atas talian.

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1.0 Introduction

In the 21st century, the learning environment should no longer be bound and restricted by the geospatial area. It should, instead, permeate through the intangible world and virtual reality to provide a future-ready curriculum. This future-ready curriculum structure should facilitate fluid and organic teaching and learning spaces that support immersive learning by utilising and leveraging the technologies of the Fourth Industrial Revolution (4th IR). Unlike conventional assessment methods, this would provide a more holistic assessment method that focuses on what students can do. As such, the curriculum structure needs to be flexible and fluid enough to respond to the needs of its stakeholders, particularly students and industry, which requires complex web-on connections that are possible through the integration of 4th IR technologies, so that meaningful learning can take place. Therefore, the basis of future learning preparations needs to comply with the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) 21st century skills or competences, which comprises 13 mechanisms compressed into critical thinking, media literacy, communication, as well as collaboration and creativity (Abdul Rahman, 2019).

2.0 Literature Review

2.1 Future Learning

The integration of the new curriculum into 4th IR led to the emergence of problems and challenges in creating methods and teaching content in the era of the 4th IR technologies as a future-ready curriculum should focus on interdisciplinary studies (multidisciplinary, interdisciplinary, and transdisciplinary) (Moghayedi et al., 2021). Take for example the Faculty of Creative Technology and Heritage at the Universiti Malaysia Kelantan. It consists of two departments that offer two divergent disciplines; namely Heritage Studies and Creative Technology. The Heritage Studies course comprises four electives; specifically, Cultural Heritage, Heritage Literature, Heritage Conservation, and the Performing Arts; while the Creative Technology course comprises seven electives; such as Fine Arts, Visual Communication, Industrial Design, and Textile Fashion to name a few. By consolidating these two interdisciplinary courses, students can obtain two degrees at once. For instance, the Department of Heritage Studies can offer a Bachelor of Heritage Studies with Multimedia or a Bachelor of Heritage and Digital Entrepreneur by integrating both disciplines. This would be in line with the flexibility of the 21st century skills outlined by the UNESCO, which encourages the development of the learners’ knowledge and skills.

The dimensions of a flexible curriculum differ from a conventional education as it promotes access to education at any time and any place through massive open online courses (MOOCs) (Christensen et al., 2013; Wulf et al., 2014). Furthermore, the learning model of a flexible curriculum emphasises learner-based personalisation and learning engagement. It also develops relationship and partnerships with external parties outside of educational institutions through joint programmes. As such, students are given problem-based and research-based activities that require them to solve real-world problems and industrial-based problems. However, students can only be equipped with these future-proof skills and competences through industry collaboration. This also expands the knowledge and experience of future-proof talents. Moreover, industry involvement in curriculum design, learning and teaching implementation, and assessment allows students to immerse themselves in real-world workplace
scenarios; i.e., 2 Years in University + 2 Years in Industry (2u2i) programmes. From a global perspective, this scheme advocates global cooperation with international universities via transnational education (TNE) programmes that will, eventually, enhance student adaptability.

On another note, transformative teaching and learning delivery in a futuristic learning space through the realisation of 4th IR creates meaningful immersive experiential learning (Rotatori et al., 2020; Yusuf et al., 2020). In the 21st century, learning pedagogy now includes student-directed learning (heutagogy), interaction between student peers to accomplish educational goals (peeragogy), and engaged online learning (cybergogy). The learning space is also futuristic with the introduction of immersive experiential learning which uses a simulated or artificial environment that enables learners to completely immerse themselves in learning in a way that feels like they are experiencing an actual learning environment.

Meanwhile, experiential learning enables students to apply their knowledge and conceptual understanding to real-world problems or authentic situations while an instructor directs and facilitates the learning process (James W. Gentry, 1990; Kolb, 2015). Experiential learning-related activities involve reflection, critical analysis, synthesis, taking the initiative, and decision making. It also provides students with opportunities to engage intellectually, creatively, emotionally, socially, or physically via hands-on activities that are executed using technologies; such as virtual reality for hospitality or augmented reality for medical students. An example of experiential learning is a gap year, where students spend one to two semesters working, exploring, or volunteering, or a 2u2i programme, where students spend two to three years learning fundamental skill and knowledge at university before spending one to two years learning in the industry through student involvement. As such, 4th IR learning technologies should provide students with various opportunities to engage, promote fresh areas of practice and innovation in teaching and learning, virtual reality and the internet of things (IoT), artificial intelligence (AI), and many more.

Apart from methodological learning approaches, alternative assessment methodologies, that holistically evaluate the outcome of a course as well as the learning processes by determining what a student can do, are necessary to implement a future-ready curriculum. Unlike traditional assessment methods, alternative assessment methods promote the integration of various written and performance-based measures (Reeves, 2016). Examples of alternative assessment methods include performance-based assessments via exhibition debates, dramatic performances and so on; integrated assessments; personalised assessments of each student's strengths, needs, skills, and interests; real-time assessments using quizzes on the Kahoot! game-based learning platform, discussions in WhatsApp groups, in-class discussions using chat tools and so on; and profiling assessment via portfolio-based assessment (Chostelidou & Manoli, 2020) and many more. Therefore, it is hoped that student-centred learning will empower both the learner and educator to face the uncertainties of the future.

2.2 Blended Learning

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2.3 Covid19 and The Call for An Online Edutainment

The coronavirus disease (COVID-19) that hit Malaysia and the rest of the world at the end of January 2020 led to changes in the teaching and learning landscape at higher learning institutions. As the virus had spread across the globe and the Federal Territory of Kuala Lumpur until the 16th of March 2020, the Malaysian government announced a movement control order (MCO) between the 18th of March, 2020 and the 31st of December, 2020 to curb the surge of positive cases in the country. As such, every institute of higher learning was required to use various online teaching and learning methods to ensure that the teaching and learning process continued throughout this disruptive period. One of the teaching approaches adopted by higher learning institutions was the Kaedah Didik Hibur (KDH) or the fun learning method (FLM). According to Omar (2008), an FLM is a teaching approach that creates a fun learning environment for students without neglecting teaching and learning objectives. It stimulates a relaxing and enjoyable experience for a practical learning framework (Ahmad et al., 2019). FLMs have been successfully used to intensify the spirit, interest, and participation of students while creating a fun and conducive learning environment (Nordin & Ahmad, 2015). It also allows students to integrate, experiment, and use what they have learned in module activities in a fun and meaningful way (Jamian et al., 2016).

Although these elements have already been sporadically executed throughout the educational process, advances in information and communication technologies (ICT) have since made them immensely popular among students, teachers, parents, and children. This is partly due to a growing number of learners who have grown up with technology, entertainment, and computer games. Therefore, there is a need for educators to implement teaching and learning methods using FLMs. Moreover, FLMs are also crucial to fully implement online learning during the pandemic. This has given rise to an ever-expanding arena of new products and methods of incorporating technology and fun into the learning process (Zorica, 2014). This influences the usage of FLMs, which popularised the use of Web 2.0 tools; such as mind maps, Mentimeter, Padlet, Facebook, infographics, cartoons, video development software, and YouTube videos to name a few. This plethora of teaching options and methods increase student concentration and understanding. It is also noteworthy that the use of technology in teaching and learning allows for time flexibility and support for students (Owens & Price, 2010). As all teaching and learning is conducted online during the pandemic, the use of FLMs can enhance the formal e-learning process, which will, optimistically, influence both student
results and satisfaction with the learning process as a whole (Labus et al., 2015).

Extant studies have found that the use of FLMs to teach and learn the Malay language have effectively improved the writing capability of students (Jamian & Ismail, 2013; Jamian, Razali, & Othman, 2016). Other research focused on the adoption of FLMs in the medical field through the use of video documentation that encouraged viewers to donate organs. FLMs have also been used to adopt positive values in teaching Islamic Education to children (Sawai, Abdullah, Baharudin, & Ismail, 2009). It has also been used to teach the Malay language to the indigenous peoples of Malaysia, which was found to successfully increase student spirits, interest, and participation. It also helped create a fun and conducive learning environment (Nordin & Ahmad, 2015). FLMs have also been used to teach and learn science and mathematics. The use of FLM; such as singing exercises; was found to increase student motivation in learning mathematics (Hisamudin, 2019).

Although FLMs are not a new method, the abrupt paradigm shift to online teaching and learning requires a fun learning environment as non-F2F teaching methods can be challenging. Therefore, fun online learning methods (FOLMs) were introduced to mitigate this problem. Various online software and tools; such as Kahoot! Mentimeter, YouTube, Facebook, Padlet, Google Docs, and Google Classroom to name a few; were created to ensure that online learning was fun and exciting for students (Dutta, 2020). Online edutainment may have drawbacks for learners, according to some studies, including the potential for addiction, mind-numbing boredom, the ability for data to be acquired without effort and proper study, and exposure to the World wide web, games, and ready-made images provided by multimedia that may change learners' attitudes toward learning (Adamović & Ivetić, 2021; Okan, 2003). However, A study by Ayad (2011), which investigated the role of FOLMs, used satisfaction evaluation methods and discovered improvements in student excitement. They study showed an 11% increase in enjoyment when using a fun learning platform than a non-fun learning platform. Therefore, having taken all these important criteria into account, this present study used FOLMs to teach and learn the Introduction to Cultural Heritage (SCM2223) course at Universiti Malaysia Kelantan.

Prior to the onset of the pandemic, this course was conducted via F2F learning. However, once the MCO was enforced, all lectures were conducted online. Lecturing online is more challenging than F2F lectures as lecturers cannot gauge student engagement and participation. This is compounded by the fact that most students mute their audio and do not turn their cameras on during online lectures. Therefore, fun and engaging methods are needed to stimulate student participation. This present study used the Introduction to Cultural Heritage (SCM2223) course. As this subject is fundamental and theoretical in nature, the use of interactive applications may help students understand the topic better. Apart from being interactive, the application can also be used as an assessment tool in the class. Three assignments; quiz, presentation and writing reports; were used to assess student understanding and comprehension. These assessments were designed based on course learning outcomes (CLO). The students used interactive applications; such as E-Campus, YouTube, Padlet and Google Doc.

### 3.0 Methodology

A total of 211 students were enrolled in the Introduction to Cultural Heritage (SCM2223) course. This course consists of four electives; namely Cultural Heritage, Heritage Literature, Heritage Conservation, and the Performing Arts. Unlike previous studies that explored the use of FOLMs in a F2F setting, this present study adopted FLMs in online
learning. The course was set to have three course learning outcome CLOs:

a. To explain the concept of tangible and intangible heritage.
b. To evaluate the cultural heritage concept as a sustainable aspect of conservation and preservation; and
c. To discuss issues in cultural heritage and challenges in the current situation.

As assessments need to be conducted at the end of each semester to accurately evaluate CLOs as well as evaluate the efficacy of the proposed FOLMs. Hence, online quizzes, social media presentations, and collaborative writing assignments were conducted using Web 2.0 tools; such as Padlet, Facebook, YouTube, Google Docs, and the e-Campus learning management system (LMS) (Figure 1).

### 3.1 Description of Approach

![Diagram of Evaluation Framework]

**Figure 1:** The evaluation framework for the FOLMs used in the Introduction to Cultural Heritage (SCM2223) course.

Figure 1 shows the evaluation framework for the FOLMs that were used in the SCM2223 course. Teaching and evaluating using FOLMs are essential to stimulate student engagement and commitment. It also functions as a method with which to directly monitor the quality of student work as all the assignments are conducted using the world wide web. Therefore, this present study encouraged students to self-learn to prepare more compelling content for teaching and learning. It also expanded student creativity that produces good quality assignments.

Of the CLOs of the SCM2223 course, CLO1 used quizzes on the e-Campus learning management system (LMS) to assess student understanding of tangible and intangible cultural heritage concepts. This quiz used the following types of questions: multiple choice (MCQs), fill-in-the-blank, short answers, drag and drop, and answer matching. Each question included photos, illustrations, and
various options to ensure a fun evaluation process. CLO2 evaluated the concept of cultural heritage as a sustainable aspect of conservation and preservation through presentations using Padlet, YouTube, and Facebook. This evaluation technique encouraged students to explore their skills and creativity to produce entertaining and informative video presentations. These video presentations were first uploaded on YouTube before the link was shared to Padlet for lecturer evaluation and Facebook for audience comments and feedback. This technique was found to encourage positive competition among the students as they got likes, comments, and feedback from their peers and audiences on social media. Lastly, CLO3 required students to discuss the issues in cultural heritage and challenges in the current situation through assignments conducted via collaborative writing in Google Docs. This method was essential in narrowing the online learning gap as students can use the platform to write collaboratively as well as review and correct each other’s writing in real-time. This, therefore, motivated students to fully commit to group activities.

3.2 Data Collection and Analysis

The sample consisted of second-year students from the Department of Heritage Studies, Faculty of Creative Technology and Heritage, Universiti Malaysia Kelantan (UMK) who had enrolled in the Introduction to Cultural Heritage (SCM2223) course in the 2020/2021 cohort for the February semester. The 211 students were separated into four groups: L1, L2, L3, and L4. Both qualitative and quantitative approaches were used in this present study. For the qualitative approach, students appraised educator performance using an evaluation instrument provided by the Centre for Excellence and Academic Development (CEAD) of the UMK. The collected data was then analysed and triangulated with past research. For the quantitative approach, stratified random sampling was used to select UMK students enrolled in the SCM2223 course to participate in a survey. Survey questionnaires that had been developed specifically for this study were distributed via online channels to all 211 students at the end of each semester. FOLMs were used throughout the semester and students were continuously assessed and evaluated over a five-month period. A total of 149 students completed the questionnaires, which comprised three main sections. The first collected the demographic data of the respondent while the second investigated respondent awareness of FOLM concepts and the third assessed respondent perceptions towards the efficacy of FOLMs according to the three CLOs; CLO1, CLO2, CLO3; of the SCM2223 course, which were already in the course syllabus. Almost all the questions of every section required respondents to indicate their preference using a 5-point Likert scale that ranged from Strongly Disagree = 1 to Strongly Agree = 5 responses. Statistical Package for Social Sciences (SPSS) was used to clean and analyse the collected data. Descriptive statistics were used to determine group means, percentages, and frequencies. Student perceptions and the CLOs of the SCM2223 course were tabulated to create an overall score for each dimension. Additionally, Cronbach’s reliability tests were also performed to evaluate the efficacy of the proposed FOLMs via the CLOs.
4.0 Result and Discussion

4.1 Demographic Profiles

<table>
<thead>
<tr>
<th>Elective Course</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Heritage</td>
<td>44</td>
<td>29.5</td>
<td>29.7</td>
<td>29.7</td>
</tr>
<tr>
<td>Heritage Literature</td>
<td>58</td>
<td>38.9</td>
<td>39.2</td>
<td>68.9</td>
</tr>
<tr>
<td>Performing Arts</td>
<td>12</td>
<td>8.1</td>
<td>8.1</td>
<td>77.0</td>
</tr>
<tr>
<td>Heritage Conservation</td>
<td>34</td>
<td>22.8</td>
<td>23.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td>99.3</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing System</td>
<td>1</td>
<td>.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>149</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A sample survey of 149 out of 211 students who enrolled in the SCM2223 course was separated into groups L1, L2, L3 and L4 and collected to assess student perception towards the use of FOLMs by the Department of Heritage Studies, Faculty of Creative Technology and Heritage, Universiti Malaysia Kelantan. Of the four electives under the Department of Heritage Studies; namely Cultural Heritage, Heritage Literature, Heritage Conservation, and the Performing Arts (Table 1); the majority of respondents were from the Heritage Literature elective (38.9%). This was followed by students from Cultural Heritage (29.5%), Heritage Conservation (22.8%), and the Performing Arts (8.1%). There were fewer respondents from the Performing Arts elective as fewer students had enrolled in this elective during the September semester. Respondents were also asked to rate their general preference of using the FOLMs in the SCM2223 course (Table 2).

<table>
<thead>
<tr>
<th>Fun - Learning Preference Rate</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>7</td>
<td>4.7</td>
<td>4.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>1.3</td>
<td>1.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Neutral</td>
<td>21</td>
<td>14.1</td>
<td>14.1</td>
<td>20.1</td>
</tr>
<tr>
<td>Agree</td>
<td>74</td>
<td>49.7</td>
<td>49.7</td>
<td>69.8</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>45</td>
<td>30.2</td>
<td>30.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>149</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 2, 49.7% of the students agreed with using FOLMs in the SCM2223 course while 30.2% strongly agreed. As such, a total of 79.9% of the students preferred using FOLMs.
4.2 Mean Scores of CLO1 Evaluation of the FOLMs

Table 3: Reliability statistics based on Cronbach's alpha.
(Source: Author, 2021)

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>Cronbach's Alpha Based on Standardised Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.973</td>
<td>.973</td>
<td>5</td>
</tr>
</tbody>
</table>

Three CLOs were formulated for the SCM2223 course. Five questions were created to determine student perception of the CLO1 ("Students will be able to explain the concept of tangible and intangible cultural heritage"). Cronbach's alpha (α) is used to measure the internal consistency of a test or scale and express it as a number between 0 and 1. As seen in Table 3, the α = 0.97, indicating that the test was reliable and valid (Tavakol & Dennick, 2011). A five-point Likert scale was used to determine if respondents agreed or disagreed with statements measuring their satisfaction or dissatisfaction towards the preference of using FOLMs regarding a few items questioned under the CLO1 (Table 4).

Table 4: Mean scores of CLO1 evaluation of the FOLMs.
(Source: Author, 2021)

<table>
<thead>
<tr>
<th>CLO1 evaluation by SCM2223 students</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;I know the concepts of tangible and intangible heritage due to the FOLMs.&quot;</td>
<td>3.3767</td>
<td>.97656</td>
<td>146</td>
</tr>
<tr>
<td>&quot;I understand the concepts of tangible and intangible heritage due to the FOLMs&quot;</td>
<td>3.3904</td>
<td>.98522</td>
<td>146</td>
</tr>
<tr>
<td>&quot;I am interested in answering online quizzes due to the FOLMs &quot;</td>
<td>3.3904</td>
<td>.95681</td>
<td>146</td>
</tr>
<tr>
<td>&quot;I can remember the concepts of tangible and intangible heritage due to the FOLMs &quot;</td>
<td>3.3288</td>
<td>.99036</td>
<td>146</td>
</tr>
<tr>
<td>&quot;I can restate the concept of tangible and intangible heritage in a quiz due to the FOLMs&quot;</td>
<td>3.3425</td>
<td>.97158</td>
<td>146</td>
</tr>
<tr>
<td>Total Mean</td>
<td>3.3657</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 summarises the mean scores of the CLO1 evaluation of the FOLMs by the Heritage students enrolled in the SCM2223 course. The mean, or average, of a dataset is found by adding all numbers in the data set then dividing it by the number of values in the set. As the mean represents typical values, it serves as a yardstick for all observations. This study measured the level of acceptance and student preference of using FOLMs on a scale of 1 to 5; where 1 = Strongly Disagree and 5 = Strongly Agree; using the items listed in CLO1. The mean score of items in CLO1 ranged between 3.34 to 3.39, with an overall mean of 3.53. Of these five items, "I understand the concepts of tangible and intangible heritage due to the FOLMs" and "I am interested in answering online quizzes due to the FOLMs" both had the highest mean scores (3.39 each). This was followed by "I know the concepts of tangible and intangible heritage due to the FOLMs" (3.37), "I can restate the concept of tangible and intangible heritage in a quiz due to the FOLMs" (3.34), and "I can remember the concepts of tangible and intangible heritage due to the FOLMs" (3.32). The highest mean scores obtained indicate that students understood and were interested in learning using FOLMs. This was corroborated by Fadde & Vu (2014) who found that blended learning provides a comprehensive understanding of the course content as well as interactions between learners, teachers, and fellow learners. The findings of this present study were also supported by other similar studies; namely Ahmad et al.
in that FOLMs provide enjoyable learning experiences and intensify the spirit and interest of students through fun and meaningful learning. However, the lowest mean score obtained by this present study indicate that FOLMs have yet to significantly impact the ability of students to memorise concepts taught in class.

4.3 Mean Scores of CLO2 Evaluation of the FOLMs

Table 5: Reliability statistics based on Cronbach’s alpha.

(Source: Author, 2021)

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>Standardised Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.972</td>
<td>.972</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 5 summarises the mean scores of the CLO2 evaluation of the FOLMs by the Heritage students enrolled in the SCM2223 course. The survey consisted of five items and the α of the survey was 0.97. The mean scores of the items under CLO2 ranged between 3.22 to 3.36, with an overall mean of 3.28 (Table 6.).

Table 6: Mean scores of CLO2 evaluation of the FOLMs.

(Source: Author, 2021)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I know the concept of cultural heritage as a sustainable aspect of conservation and preservation through online FLM”</td>
<td>3.2838</td>
<td>.99002</td>
<td>148</td>
</tr>
<tr>
<td>“I understand the concept of cultural heritage as a sustainable aspect of conservation and preservation through online FLM”</td>
<td>3.3378</td>
<td>.98667</td>
<td>148</td>
</tr>
<tr>
<td>“I am interested in the concept of cultural heritage as a sustainable aspect of conservation and preservation through online FLM”</td>
<td>3.3649</td>
<td>.97694</td>
<td>148</td>
</tr>
<tr>
<td>“I remember the concept of cultural heritage as a sustainable aspect of conservation and preservation through online FLM”</td>
<td>3.2230</td>
<td>.96059</td>
<td>148</td>
</tr>
<tr>
<td>“I can explain the concept of cultural heritage as a sustainable aspect of conservation and preservation through online FLM”</td>
<td>3.2027</td>
<td>.96157</td>
<td>148</td>
</tr>
<tr>
<td>TOTAL MEAN</td>
<td>3.2824</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 6, of the five items, “I am interested in the concept of cultural heritage as a sustainable aspect of conservation and preservation due to the FOLMs” had the highest mean score (3.36). This was followed by “I understand the concept of cultural heritage as a sustainable aspect of conservation and preservation due to the FOLMs” (3.33). This indicated that the FOLMs applied in CLO2 had a positive impact on student interest in learning and their level of understanding. This finding was corroborated by Ayad (2011) who discovered improvements in user excitement using satisfaction evaluation methods. This was followed by “I know the concept of cultural heritage as a sustainable aspect of conservation and preservation due to the FOLMs” (3.28), “I remember the concept of cultural heritage as a sustainable aspect of conservation and preservation due to the FOLMs” (3.22), and “I can explain the concept of cultural heritage as a sustainable aspect of conservation and preservation due to the FOLMs” (3.20).
### 4.4 Mean Scores of CLO3 Evaluation of the FOLMs

**Table 7**: Reliability Statistics based on Cronbach’s Alpha
(Source: Author, 2021)

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>Based on Standardised Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.976</td>
<td>.976</td>
<td>5</td>
</tr>
</tbody>
</table>

In the final CLO, respondents were asked to use a five-point Likert scale to rate their agreement or disagreement with statements that measured their satisfaction or dissatisfaction with the preference rating for FOLMs in CLO1. As such, a satisfaction survey was sent to 211 respondents, of which 149 responded. As seen in Table 7, the satisfaction survey consisted of five items and the α of the survey was 0.97, indicating its reliability and validity.

**Table 8**: Mean scores of CLO3 evaluation of the FOLMs.
(Source: Author, 2021)

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I know the cultural heritage issues and challenges in current situation”</td>
<td>3.3151</td>
<td>1.01542</td>
<td>146</td>
</tr>
<tr>
<td>“I understand the cultural heritage issues and challenges in current situation through online FLM”</td>
<td>3.2534</td>
<td>.98128</td>
<td>146</td>
</tr>
<tr>
<td>“I am interested the cultural heritage issues and challenges in current situation through online FLM”</td>
<td>3.3014</td>
<td>.97817</td>
<td>146</td>
</tr>
<tr>
<td>“I can process the cultural heritage issues and challenges in current situation through online FLM”</td>
<td>3.1712</td>
<td>.93484</td>
<td>146</td>
</tr>
<tr>
<td>“I can analyse and apply the cultural heritage issues and challenges in current situation through online FLM”</td>
<td>3.1781</td>
<td>.92985</td>
<td>146</td>
</tr>
<tr>
<td><strong>TOTAL MEAN</strong></td>
<td>3.2438</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8 summarises the mean scores of the CLO3 evaluation of the FOLMs by the Heritage students enrolled in the SCM2223 course. The mean scores ranged between 3.17 to 3.31, with an overall mean of 3.24. Of the five items, “I know the cultural heritage issues and challenges in current situation” had the highest mean score (3.31). This was followed by “I am interested the cultural heritage issues and challenges in current situation due to the FOLMs” (3.30), “I understand the cultural heritage issues and challenges in current situation due to the FOLMs” (3.25), “I can analyse and apply the cultural heritage issues and challenges in current situation due to the FOLMs” (3.178), and “I can process the cultural heritage issues and challenges in current situation due to the FOLMs” (3.171). Once again, the highest mean score indicated that FOLMs helped students understand the heritage concepts and encouraged them to engage in the subjects more through their interest in learning the subjects. Although a few of the other items scored the lowest in each CLO1, CLO2, and CLO3, their mean differences were highly marginal.

It is noteworthy that of all the three CLOs, statements on “knowing”, “interest” and “understanding” had the highest mean value indicating a positive correlation between the use of FOLMs to enhancing student understanding of the course content. This statement supports that FOLMs boost student spirit, interest, participation, and motivation to learn while simultaneously rejecting negative associations with increased workload, online dependency, and feelings of isolation.

In general, the good CLO results reported by the CEAD prove the efficacy of using FOLMs to teach and learn the SCM2223 course (Figure 1).
As seen in Figure 1, an analysis of the student evaluations of CLO1, CLO2, and CLO3 resulted in 2.1, 2.5, and 2.9, respectively. CLO3, which was assessed using collaborative writing on Google Docs, had the highest percentage; 2.9 out of 4.0. As CLO3 is considered the highest level of comprehension assessment, this indicates that students understand the basic concept of Cultural Heritage. Students were also able to apply heritage concepts on Cultural Heritage-related issues. The positive results of the CEAD survey show that this method was the most successful.

Apart from that, the CEAD evaluates the teaching and learning of each of the university’s courses to monitor student satisfaction as well as lecturer performance at the end of each semester. Therefore, students will have to rate the course evaluation criteria at the end of each semester of the SCM2223 course. According to the CEAD report, student satisfaction towards the teaching and learning of the SCM2223 course was impressive; 4.7 out of 5.0. Moreover, the overall student rating of the teaching and learning rating of the SCM2223 course was also good; 4.6 out of 5.0 (CEAD, 2020). This crucial evidence
shows that FOLMs are successful and can be applied to other related courses.

5.0 CONCLUSION

The utilisation of FOLMs in the Introduction to Cultural Heritage (SCM2223) course directly enhance students understanding, comprehension and acceptance towards FOLMs. This indicates that both lecturers and students are ready to embark on full-time FOLMs as both parties can cope and accept the methods well without the feeling of being coerced during the pandemic. The data also showed that FOLMs increased student interest in learning and, more importantly, encouraged student cognitive behaviour towards the course content as well as improved overall satisfaction with online teaching methods.

References


113


