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The Usability of Virtual Meeting Platforms in Art and Design Studies

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Abstract

The use of Virtual Meeting Platforms (VMP) has given opportunities for continued instruction and learning throughout the COVID-19 Movement Control period, especially among educators in Malaysia's higher education institutions. Regardless, there is great debate regarding whether or not it will benefit students pursuing art and design degrees. As a result, the following questions have been posed. How much does VMP affect art and design students? What is the consensus among art and design students about VMP? As a result, this case study aims to investigate students' views on the usability of Virtual Meeting Platforms (VMP) at the College of Creative Arts, Universiti Teknologi MARA, Malacca Branch. A survey with two sections, the Likert scale, and an open-ended questionnaire, was completed by 277 students. The results demonstrate that respondents agree on their perceptions of efficiency, satisfaction, learnability, stress, and camera shyness. Furthermore, respondents thought VMP was useful and relevant in the context of art and design studies. It is envisaged that the findings of this study would be used by academic administrators to improve teaching and learning at the College of Creative Arts, Universiti Teknologi MARA, Malacca Branch.

Keywords: Studio-Based Learning, Usability, Virtual Meeting Platforms, Art and Design Studies

Introduction

The Movement Control Order (MCO), which went into effect in early March 2020 to prevent the spread of COVID 19 in Malaysia, has had a significant impact on our lives. The Prevention and Control of Infectious Diseases Act 1988 requires that many daily activities be regulated, and persons are recommended to closely follow the standard operating procedure. According to this act, only individuals who work in critical areas are permitted to come to work, while others must work from home. Higher education institutions are one of the most

affected industries by MCO. The outbreak of Covid 19 has impacted the education sector globally, according to Choong (2020), with rescheduling of lectures, tutorials, lab research, enrolling of new students, and cancellation of student exchange programmes and academic conferences. Similarly, many Malaysian higher education institutions had to reconsider and reorganise their current teaching and learning methods. According to experts (Lim et al., 2021), the Covid 19 epidemic has resulted in the emergence of two separate groups of lecturers. The first group has past experience with online tools, whereas the second group is having to adjust to the new normal, which can be difficult at times.

Universiti Teknologi MARA (UiTM), one of Malaysia's leading public universities, has opted to activate Open and Distance Learning (ODL) to support the continued education of about 180,000 students across the country. Former Deputy Chancellor of Academic and International Affairs of UiTM, Professor Kamal (2020), stated in an interview with Selamat Pagi Malaysia that ODL is not a new concept, but has been in use for many years. ODL is unique in that it provides a synchronous (which occurs at the same time) and asynchronous (which does not occur at the same time) learning experience for students who live in remote areas, allowing them to enrol in a programme and access learning materials through a variety of methods, including phone calls, newsletters, mail, pre-recorded video and audio. Regardless, ODL would benefit only a few programmes. These are technical and vocational programmes that rely on face-to-face interaction and outdoor studies. To mitigate the effects of MCO, a model known as Blended Learning (BL) was developed, which combines physical and non-physical learning styles. Studio-based Learning (SBL) is a prevalent concept in art and design education that focuses on problem-based learning in a shared learning area (Brocato, 2009; Monsoon and Poros, 2003). Field visits, shared well-resourced physical space, expert lectures and panel discussions, pinup sessions, desk critique sessions, formal juries, consultation during classwork time, and a propose-critique-iterate posture are among its common pedagogies. Many lecturers and students were confused when MCO went into force in March 2020 since they didn't know how the ODL method would completely replace SBL (Lim et al., 2021).

Despite numerous doubts, ODL has provided an option for art and design students and instructors to use a Virtual Meeting Platform (VMP). In terms of technology, the VMP is a synchronous learning tool made up of video apps and software that allows users to exchange data files, whiteboards, and information via video and voice via the internet (Reushle and Loch, 2008). There are a variety of VMPs accessible to download right now, including Zoom, Webex, and Google Meet. In the case of the Covid 19 epidemic, Sameer (2020) claims that VMP may be the ideal alternative for inducing good communication between instructors and students, especially when face-to-face participation is not possible. However, art and design students continue to struggle since their courses rely heavily on hands-on activities and face-to-face interaction. VMP, on the other hand, appears to be a good solution for providing lectures and class notes. This issue will eventually have an impact on the students' performance. They will not be able to upgrade their skills because they won't be able to communicate with their lecturer's face to face. On that basis, we argue that VMP usability should be assessed at Faculty of Art and Design, UiTM Malacca Branch. Therefore, the main objective of this paper is to examine the VMP's usability for art and design students and to investigate how art and design students feel about VMP being implemented for students pursuing degrees in art and design.

Literature Review

For the past three decades, consumers have always acknowledged the usage of VMP. For example, Skype, which debuted in 2003, is one of the most popular VMPs. This specific online video software employs instant chat and video via the internet, delivering a free service to subscribers, according to video conferencing history (Business Matter, 2015). Unfortunately, several firms have prohibited Skype owing to high bandwidth requirements and a variety of inappropriate applications. When broadband became more widely available and inexpensive in 2004, more businesses began to use video conferencing.

Scholars believe that the growth of VMP usage is related to regulations enacted by governments throughout the world to limit social interaction, such as physical meetings, mobility, and public life in general. Furthermore, users began to see the value of VMP in assisting daily tasks linked to school, communities, friends, and families (Hacker et al., 2020). Although VMP appears to be the right tool for dealing with the problem, there are still concerns about its use in education. According to some experts, employing VMP is an extremely rigorous and stressful experience for both students and instructors (Burns et al., 2000). Joyner et al (2014) note in a research paper on the relevance of student-instructor relationships in graduate-level online courses that the presence of lecturers in a virtual classroom may either be promoted or blocked by the use of technology. In truth, technology is not always a benefit to educators; it may often be a hindrance (Joyner et al., 2014).

For example, if the lecture is repetitive or uninspired, students can quickly withdraw from the learning process by turning off the camera during a virtual conference session. Because it is impossible for lecturers to monitor each individual in the virtual classroom, this incidence is more likely to occur in a bigger group of students. As a result, instructors must completely participate in the course and ensure that the sense of academic quality is not harmed, otherwise their students would likely disengage from the content (Armstrong, 2011).

Another issue that impacts VMP is interference. Interference will reduce the efficiency and reliability of delivered messages, according to the Transactional communication model, depending on the medium used (Businesstopia, 2018). If a student turns off the camera during an online lecture, the lecturer will be unable to identify the students' spontaneous reactions, as previously indicated. A quick nod gesture, for example, indicates that the kids are interested, whereas yawning indicates that they are bored. This simple body language can be characterised as a type of visual cue or non-verbal communication that is performed in front of others and is interpreted consciously or unconsciously. Bambaero and Shokrpour (2017) found that integrating non-verbal communication in teaching had a substantial impact on students' academic performance. The researchers also recommended that educators routinely practise nonverbal communication skills in order to have a beneficial and lasting impact on students' mental health.

Scholars argue that improved technology alone will not be sufficient, and that a sense of 'human touch' will be required (Al Fadhli, 2009; Khalili, 2020). Five elements are thought to have a substantial influence on what is categorised as remote learning adoption, including computer competency, technology factors, social presence, and instructor traits (Al Fadhli, 2009). The VMP appears to be only acceptable for theory-based topics, while it is impractical for studio-based subjects that rely on experience learning. The qualities of the user interface, as well as identifying particular difficulties, should be addressed while evaluating VMP's usability (Ivory and Hearst, 2001). Therefore, they constructed a new Usability model in this study, which incorporates Perceived Efficiency, Perceived Satisfaction, Perceived Learnability, Perceived Stress, and Perceived Camera Shyness being used in this study (see Figure 1).

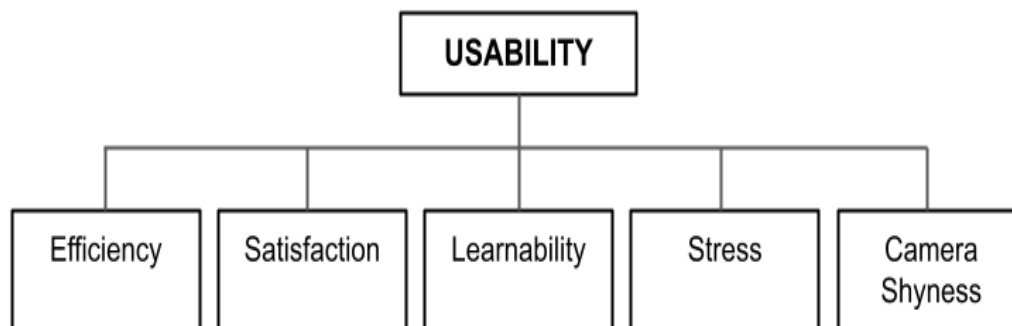


Figure 1. Usability

Methodology

The Google Form app was used to construct a questionnaire instrument that has two parts: 1. Likert Scale and 2. Open-ended questions. The Likert scale questionnaire examines students' perceptions of VMP's usability in art and design classes using 5-point response scales (1=Strongly Disagree, 2= Disagree, 3=Neutral, 4= Agree, 5=Strongly Agree). Raosoft's (2004) online sample size calculator was used to calculate the sample size. A 50 percent response distribution, a 5% margin of error, and a 95 percent confidence interval were used in the calculation. As recommended, two hundred and seventy-seven students (n=277) from the College of Creative Arts, UiTM Melaka Branch, were chosen. Graphic Design, Photography, Industrial Design, and Fine Arts are among the majors pursued by these students.

Cronbach's Alpha was used to check that the questions were internally consistent. Internal consistency, according to Tavakol and Dennick (2011), refers to the degree to which all of the items on a scale measure various facet of the same property. Cronbach's alpha value in this scenario varies from 0 to 1, with a value of 0.7 or above deemed adequately reliable and acceptable. The questionnaire instrument's reliability and validity were investigated in a pilot study. The findings revealed that the queries were valid. 0.8476 was the overall alpha score. A total of 300 questionnaires were sent to students at the College of Creative Arts at random. Between November 10, 2020, and November 17, 2020, online surveys were conducted and data was collected. The survey's results were analysed using central tendency, which describes the scale using means (M) and standard deviations (SD).

The Open-ended questionnaire requires respondents to type their answers into a comment box provided in the form. In this section, convenience sampling and open coding methods were utilised to collect data in order to identify some flaws with ODL's studio-based learning courses.

Results and Discussions

Demography

The survey received a total of 277 (n=277) responses, with 65 percent of female students and 35 percent of male students responding. In terms of programme level, 70% of them are studying at the Diploma level, while 30% are studying at the Degree level. According to survey data, the majority of respondents (64 percent) live in urban areas, while the remaining 36% live in rural areas.

VMP'S Usability

All questions (items) in the Perceived Efficiency section have a modest Mean score ranging from 3.61 to 3.65 (see table 1). This also suggests that students are still adjusting to the new standard in art and design studies. Meanwhile, all questions (items) in the Perceived Satisfaction section have a low Mean score ranging from 2.45 to 2.85. This indicates that the students were dissatisfied with VMP's usability, particularly with regard to technical components that appeared to be complicated or difficult to handle. Furthermore, the majority of students found VMP-delivered presentations to be repetitive. This could be due to the linearity of the story and the absence of visual features.

All questions (items) have a moderate Mean score ranging from 3.84 to 3.88 in terms of Perceived Learnability. The majority of students believed that VMP had the benefit of strengthening their IT abilities while also providing motivation through the virtual presence of their instructors and peers. Whereas, All questions (items) in the Perceived Stress section have a low Mean score ranging from 2.38 to 2.51. This finding implies that when using the VMP during ODL, the majority of students were suffering emotional distress. This is most likely due to the monitor's (desktop or laptop) size, which restricts viewing of the slideshow's contents. In the Perceived Camera Shyness section, all questions (items) have a moderate Mean score ranging from 3.44 to 4.02. Most students are hesitant to turn on the camera during online lectures unless they appear tidy and proper.

Table 1

VMP's Usability

Items	<i>M</i>	<i>SD</i>
A. Perceived Efficiency		
Q1. I find the "present now" feature in VMP useful.	3.65	0.96
Q2.VMP allows me to interact with my lecturer better.	3.44	1.11
Q3.VMP allows me to interact with my classroom colleagues.	3.61	0.99
B. Perceived Satisfaction		
Q4. I do not find the tools or features of VMP difficult to use.	2.45	1.86
Q5. I do not find lectures delivered using VMP boring.	2.85	1.52
C. Perceived Learnability		
Q6.VMP improves my IT skills.	3.88	0.79
Q7.The presence of my lecturer gives me the motivation to learn and to do my assignment.	3.88	0.99
Q8. The presence of my classroom colleagues gives me the motivation to learn and do my assignment.	3.84	0.82
D. Perceived Stress		

Q9. I do not feel stressed when using VMP during online lectures.	2.38	1.85
Q10. I don't feel stressed every time there is a delay due to slow bandwidth or poor connection	2.51	1.76

E. Perceived Camera Shyness

Q11. I feel shy to turn on my camera and audio during online video conferencing	3.44	1.11
Q12. I always make sure I look neat and tidy during a virtual face-to-face session with my lecturer.	4.02	0.69

The results of the Open-ended questionnaire based on the research question "What is the general consensus among art and design students about VMP?" are shown in this section. Students' written comments on the use of VMP for studio-based learning courses reveal mixed feelings. A total of 25 Open Coding codes (responses) and two themes, Advantageous and Disadvantageous, have been found based on the Open Coding and Axial Coding data analysis (see Figure 2).

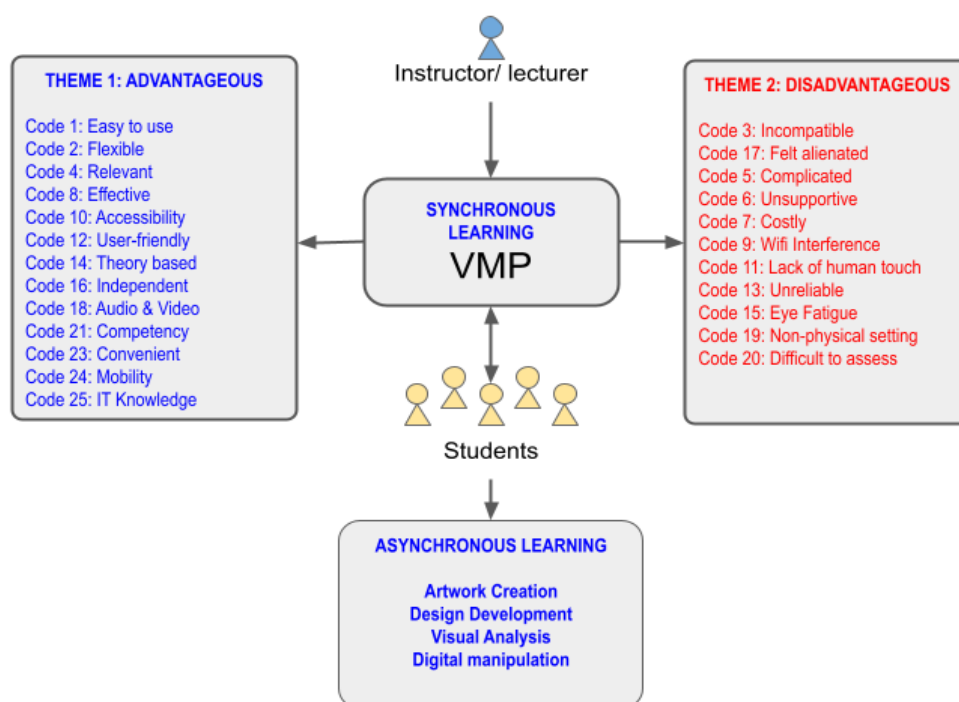


Figure 2. Open Coding and Axial Coding

Majority of art and design students thought VMP was simple to use, relevant, effective, and convenient. VMP, according to one of the responders, encourages students to improve their IT skills and allows them to experiment with the tools for other objectives. This reinforces the idea that VMP has a lot of potential in terms of assisting students in developing and equipping themselves with the skills they need in today's world.

Another interesting finding was that the majority of respondents had similar opinions about accessibility. In this way, students have the option of participating in virtual learning at their leisure. However, there are some restrictions; for example, in order to avoid Wi-Fi interference, students must be within an approved signal range. Interference can also be caused by a lack of internet bandwidth capacity. For example, a 10 megabits per second (Mbps) bandwidth may be insufficient, resulting in a download time delay. The students claimed that in order to solve this problem, they would need to increase to a bandwidth of 100 Mbps or greater. However, this commitment (to increase bandwidth) comes with an additional expense. Some students expressed worry that students from low-income families or those classified as B40 (according to Malaysian economic categorization) might not be able to afford the subscription cost.

In terms of usability, most respondents thought VMP supported synchronous learning, which allows students to connect with their lecturers and colleagues at the same time. Synchronous learning is also seen as the optimum approach during MCO due to its ability to reduce the likelihood of COVID 19 infection. Despite this benefit, VMP lacks a feature that allows lecturers to keep an eye on their students while delivering slideshows, which is critical for maintaining social presence and eye contact. As a result, lecturers were unable to judge how their students were handling the material. This will undoubtedly deter students from fully comprehending the material. Another drawback of VMP is that students are unable to judge or estimate the proportion and scale of the artwork or instruments presented to them. This is due to the monitor screen (laptop or PC) having a limited viewing angle. Because of this issue, some students are frustrated because they are unable to follow directions.

Conclusion

The implementation of MCO could end up being a blessing in disguise. One of the advantages is that it will enable UiTM to expedite its education revolution in line with I.R. 4.0. However, many programmes, particularly art and design studies that require the presence of a lecturer and a physical place, would not benefit from ODL due to technical limitations. Students of art and design will need to adjust to the new normal, while lecturers will need to improve their technical skills in areas like computer networks, big data, video conferencing, website design, and electronic presentations, among others.

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