Overcoming Learning Obstacles and Improving Online Distance Learning (ODL) among Art and Design Education Students during Covid-19

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Abstract. This research aims to determine the challenges faced by Art and Design Education students, Faculty of Education, UiTM, Puncak Alam online distance learning experience in improving their learning strategies. Data collected from 135 students were evaluated to identify the challenges by using quantitative methods and evaluated through SPSS analysis. The research results show that students can improve their learning strategies when adopting new learning norms. The resulting score obtained is very important for determining the improvement of their learning strategy. It also provides insights, achievements, and motivations to guide the Art and Design Education students in learning with new norms during the Covid-19 pandemic.

Keywords: Online distance learning (ODL), learning strategies, Covid-19 pandemic, Art and Design Education

1 Introduction

COVID-19 has seriously impact educators, students and educational organizations globally causing schools and universities to be closed in efforts of regulating social distancing. The conventional face-to-face teaching and learning has been put on hold and substituted with online learning to ensure the continuity of education. Since then, schools and universities around the world employed online learning for unceasing education. Like many countries in the world, Malaysia has also implemented online learning during the imposed Movement Control Order (MCO) to prevent the persisting spread of Covid-19.

As infected cases escalated in the third quarter of 2020 within certain states, the Ministry of Higher Education (MOHE) had directed that all public and private universities in Malaysia to hold classes virtually [13]. Thus, begun the era of the 'new norm' in which online learning is considered the best option to resume teaching and learning.

UiTM has engaged in blended learning (BL) by incorporating conventional face-to-face teaching and online interactions prior to the Covid-19 pandemic. Through blended learning,

some courses are structured to have physical lectures which are supplemented with online tutorials. This way, students have the autonomy for learning in setting their educational goals, self-regulate their education, and critical in making decisions than just submitting to a prescribed curriculum outline. With the escalation in the spread of COVID-19 globally, learning materials are shared and accessed through virtual resources including virtual tutoring, video conferencing tools, and online learning applications. University students are encouraged to utilise every available paraphernalia of digital devices and applications to sustain the learning process. In view of these sudden and rapid changes, a significant cluster of university students are struggling to cope with the fully online learning method.

2 Problem Statement

Beginning April 12, 2020, Universiti Teknologi MARA (UiTM), a public university in Malaysia, commenced the online learning method for all courses throughout its nationwide campuses. With the onset of the Covid-19 pandemic, online learning strategies are rapidly executed in UiTM. Many students and educators are left astounded with the sudden overwhelming use of the virtual technologies in the absence of appropriate instruction, preparation, and support. Similar to Normaziana Hassan [8], the Ministry of Education in Malaysia has issued guidelines of online teaching that started on April 13, 2020, such as by using Google Classroom to ensure no students are left behind. Web-based classroom meetings and messaging applications have become useful cutting-edge tools and as means of communication within the education community. Essentially, UiTM in its best efforts would ensure that students obtain uninterrupted education with every technological means.

The implementation of online learning affects both the lecturers and students [5] and caused a lot of tension especially during its initial stage. This is because the practice of teaching and learning virtually requires some specific skills and knowledge especially with unfamiliar software and applications [6]. Due to the unexpected circumstances, students have to amend their learning methods. They are required to be technologically savvy, technically competent, and improve their learning style.

Online learning allows students to access course materials and engage with learning activities more conveniently compared to face-to-face activities in terms of time and space. Some students find online learning as time and energy saving as they could save time commuting to the physical setting, while others feel that virtual communication can be ineffectual during group discussions or in large groups. Nevertheless, students acknowledged that virtual learning provides flexibility with more personalized elements but would still require support from the educators in adjusting to the application of online distance learning. Due to the vague standard operational procedures in the sudden employment of fully ODL, both educators and students struggle with some domestic, economic, and health situations. Clear curriculum directions need to be properly tabled with regard to virtual learning instructions especially when evaluations are of utmost concern.

Students' academic performance are influenced by various issues that arise while studying online. Students who are not familiar with online learning with its technology and technical aspects would be physically and mentally challenged in adapting to this new norm. The new

experience of online learning has also affected the Art and Design Education (ADE) students from the Faculty of Education, UiTM, Puncak Alam campus. Therefore, this research is conducted to analyse the ability of the ADE student's competency with the modern technology apps available when learning the art subject virtually.

3   Literature Review

Malaysia has rigorously put years of efforts in being among the developed nations by 2020 [8]. With gradual development in information and computer technologies, Malaysia is a proactive nation as it embraces cutting-edge digital technologies. Virtual communication serves as the primary means for communication, education, and socio-economic activities in the global upsurge of the Covid-19 pandemic.

The ADE students can benefit from advances in digital tools and technology to develop and enhance specific artistic skills with various applications available through Web 2.0. Some of the popular applications and platforms available include YouTube, iTunes, Facebook, Myspace, Instagram, blogging, wiki, Tumbler, and Chirp. The Fourth Industrial Revolution (Industry 4.0) has created multiple opportunities for creative enterprises, new wave of employment, and market transformation. Technologies in big data, automated robotics, simulation; uniform systems integration; cybersecurity; cloud computing; additive manufacturing; and reality technology are among the nine foundations of technological advancement in Industry 4.0 [12]. Essentially, ADE students can adopt these different approaches to digitalize learning in adjusting curriculum concepts for comprehensive understanding of the content. Consequently, they will be able to introduce current technological development while demonstrating their creative and innovative skill in potential classrooms and teaching practices in the formation of efficacious learning [11].

3.1   The emerging of online learner

In establishing meaningful learning using technology in art education involve improving the quality of learning or literacy skills, quality of teaching, diversifying methods of learning to increase students' interests. Hence, the teaching and learning of Arts can be incorporated as an activating and dynamic platform to facilitate the meaningful experiences to students [5]. Using cutting-edge technologies could support different educational approaches, provide easy access to lifelong learning resources, offer ease in publishing curriculum materials for students and educators, while laying out access for writing projects, and supporting collaboration. Research by Zolkefli, Nordin and Mohd Kasri [14] on the model Technological, Pedagogical and Content Knowledge (TPACK) introduced by Mishra and Koehler [4] explicitly indicates that all parties directly involved in the world of education need to understand that there is no space for non-participation in the implementation of educational transformation. The importance of self-efficacy, cultural beliefs, knowledge and pedagogical beliefs have been substantiated as major components in influencing technology integration [3].

3.2   The framework

Online learning provides undeniable advantages, such as less restrictions, easy

accessibility, and the ability to recover information at any time. Although online learning provides various ease and accessibility in teaching and learning it still necessitates the use of an ideal model. Hence, this study employs the Integrative Learning Design Framework for Online Learning (ILDF) established by Dabbagh and Bannan-Ritland [1]. Using social learning concepts, remote education research and the availability of emerging online technology has inspired the researchers [1] to develop a methodology for designing, creating, and implementing online instruction. The ILDF incorporates a constructivist pedagogical model, instructional strategies for developing critical learner competencies, and learning technologies to effectively design, manage, and deliver instructions in online learning environment. The concept of the independent, place-bound, adult, self-motivated, disciplined self-starter, and goal-oriented learner, which largely characterized the classic distance education learner, is being challenged with socially mediated online learning activities that de-emphasize independent learning and emphasize social interaction and collaboration [2]. The ILDF for online learning versatility also allows developers to choose activities that are both formal and informal, while providing the best match for their circumstance as what have been identified at the level of development [1]. The three stages of online learning evolution are as follows:

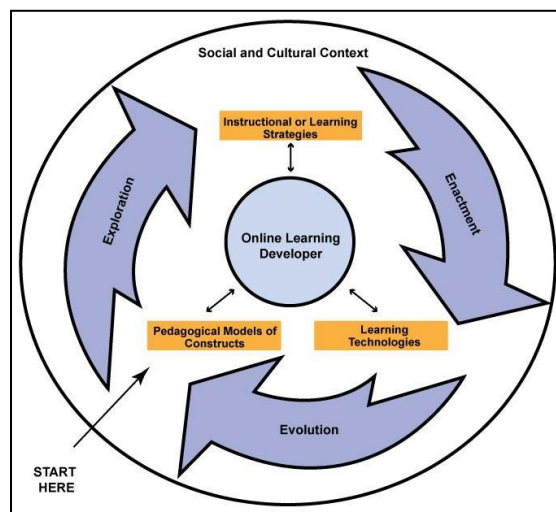i) Exploration, ii) Enactment and iii) Evaluation (see **Figure 1**).

Fig. 1: Integrative Learning Design Framework for Online Learning (ILDF)
(Dabbagh and Bannan-Ritland, 2005).

The design of the ILDF framework is based on two basic designs. The first design is a part of the online learning model that includes pedagogical model of constructs, instructional of learning strategies, and online learning technologies. The pedagogical model of constructs is a view on the learning process which consists of theoretical models or structures drawn from learning theories that can be implemented into specific learning strategies. The first step in comprehending the pedagogical model is to understand how individuals learn and how knowledge is constructed, stored, and then updated [1].

The instructional of learning strategies stage defines the strategies and procedures employed by educators to facilitate and engage learners in learning activities [1]. A learning

strategy that meets the constructivist pedagogical model is used as an example to better understand learning techniques online. The learning practices are introduced to promote constructivist educational models that emphasize real-world learning activities, problem-solving, teamwork, social skills, scaffolding, and self-directed learning.

Online learning technologies refer to the asynchronous and synchronous communication technologies including the web, hypermedia, and multimedia [1]. Asynchronous learning is the operation of non-simultaneous learning activities in which the ADE students can choose their best time that is most convenient for them to learn. Synchronous learning is the operation of collaborative learning activities in which the ADE students are obliged to participate at the same time. An overview of technology learning that may be used in online learning has been extended to help the ADE students to learn and comprehend technology in a simple way. Among the technologies to be used online include webcasting, audio streaming and website.

The second design is systematic process development that includes exploration, enactment and evaluation. These stages are the substance to the ILDF framework in ensuring effective online learning implementation.

The first stage of the framework is Exploration which is related to its main activity in making identification of information relevant to the learning situation, including learners [1]. Hence, the ADE students have a primary task in gathering and identifying information related to characteristics, environment, materials, and learning objectives.

Enactment is also vital in the ILDF framework. The Enactment stage involves mapping information obtained in the Exploration stage which includes aims, processes, learning materials with existing pedagogical models, particularly in determining online learning techniques that suit the students' needs [1]. At this point, ADE students should analyse the data and ensure that effective learning strategies have been implemented by exploring pedagogical models or learning theories.

Evaluation is the final stage in the framework that is developed to identify the effectiveness of online learning strategy. The Evaluation stage involves determining the purpose, the expected learning outcome, and method to evaluate online learning design, incorporate evaluation formative with a revision cycle that results in the effectiveness of the application for online learning [1]. In this case, the ADE students must be able to apply good decision-making skills by considering factors relevant to the learning context. Through evaluation, the ADE students should be able to know their learning effectiveness from the results of formative evaluation and the experts.

Thus, the ILDF framework for online learning comprises all the design mentioned to support learning activities and contributes to meaningful interactions among the ADE students. For effectual online learning among ADE students, they must be able to organize and build activities and interactions to create a meaningful learning process through the construction of online learning models that are relevant to their learning styles. Dabbagh [2] has summarized the following characteristics and skills as critical to the success for online learners

- Having strong academic self-concept.
- Exhibiting fluency in the use of online learning technologies.

• Possessing interpersonal and communication skills.
• Understanding and valuing interaction and collaborative learning.
• Possessing an internal locus of control.
• Exhibiting self-directed learning skills.
• Exhibiting a need for affiliation.

According to Dabbagh [2], an effective online student should be able to acquire the following facts:

1. Be skilled in the use of online learning technologies, particularly communication andcollaborative technologies.
2. Have a strong academic self-concept and good interpersonal and communication skills.
3. Have a basic understanding and appreciation of collaborative learning and developcompetencies in related skills.
4. Acquire self-directed learning skills through the deployment of time management andcognitive learning strategies.

4 Research method

This study employs a non-experimental quantitative research approach, in which experimental research is carried out to collect numerical data using a 5-point Likert scale in a limited framework of alternatives, close-ended questions, and the question types are crucial for collecting survey responses through online. A non-experimental design study is used when demographic aspects such as age and gender are present naturally.

Data is collected from the population, and basic statistics such as percentage is provided in this descriptive study. This research also investigates the obstacles that ADE students encounter when taking online Art programs and the solutions employed to make their learning experiences more effective. This is essential because the online learning environment differs from that of a traditional classroom, students in the online classroom should be preparedto deal with problems and challenges. In this study, the respondents are ADE students who are obligated for online distant learning due to the Covid-19 safety regulations. The ADE students involved are selected as they have had experience in learning online. Their various learning styles are another crucial factor that determines the success of online learning.

For extra knowledge, some students rely only on internet resources, reading lists, journals, discussion, and online activities. Hence, it would be interesting to identify the primaryobstacles faced by the ADE students in online art classes, as well as the techniques they usuallyemploy in the event of any issues that arise in or outside of the online classroom.

4.1 Findings

This study relied on quantitative data. To collect the data, a questionnaire was developed and distributed through Google Form, which was then converted into numerical data.A Likert scale survey was employed with the following responses: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree. With this part, the respondents' obstaclesin online

art courses are identified as seen in Table 1. It also includes the respondents' strategies in improving the effectiveness of online Art classes in Table 2. Finally, the Guttman scale was utilized where respondents were asked to tick YES or NO about the application platform they use for their online classes. The data is tabulated in Table 3.

Table 1. Respondents' obstacles during online learning

	Percent	Valid percent	Cumulative Percent
Internet connection problem	24.4	24.4	66.7
Less interaction with lecturer	28.9	28.9	65.9
Lecturers' online instructions are difficult to understand	25.2	25.2	66.7
Too many assignments submission	28.1	28.1	46.7
Remaining motivated to start the work of the course	24.4	24.4	73.3
Less interactions with classmates	21.5	21.5	57.8
Facing difficulties to conduct group work	25.9	25.9	56.3
Online learning is not interesting	19.3	19.3	56.3
It is difficult to manage group work among students	25.9	25.9	80
Facing technical problem during online learning	34.1	34.1	82.2

Table 1 reveals that the frequent disruption with students' internet connection is the most significant obstacle in distant online learning with 82.2% of the respondents strongly agree to experiencing the problem. Concerningly, students who are in rural areas or from low-income households, do not have access to the internet or have poor internet connection. The second prevalent obstacle faced by 80% of students is the difficulties to manage group work. This may be caused by the lack of group dynamics with some students not having adequate communication with their peers. Aside from that, some students may not participate in group work, be apathetic, or even fail to finish projects on time. The third most common issue among 73.3% of the ADE students is the lack of motivation for online studying. Due to the lack of understanding in completing tasks, students are reluctant to start an assignment. They used to be able to ask friends and lecturers for advice and opinions, but it is getting more difficult because they do not get the encouragement and supports needed to stay inspired and motivated. These are the three main issues that ADE students experience during online learning. Other issues confronting the ADE student are listed in Table 1. From the findings, it can be inferred that two-way communication is indispensable to achieve effective online learning. Because online learning is completely reliant on technology gadgets and the internet, students with poor internet connection may be deprived of effective learning. Hence, the goal of online learning is to make learning experience more communicative and stimulating than just providing instructional materials on the internet.

This study is also carried out to identify the ADE students' most preferred applications and readiness to use them in achieving the learning goals. Results are displayed in Table 2.

Table 2. Applications Platform Used In Online Art Classes.

	n	%	Rank
Google Classroom	135	100.0	1
Google Meet	133	98.5	2
WhatsApp	132	97.8	3
YouTube	119	88.1	4
Telegram	112	83.0	5
Cisco Webex	85	63.0	6
ZOOM	52	38.5	7
Edmodo	27	20.0	8
SHAREit	14	10.4	9

There are nine prominent application platforms utilized in online Art lessons, as shown in Table 1, and they were rated based on the percentage of replies. Google Classroom (100%) was the most popularly used application, followed by Google Meet (98.5 percent), WhatsApp (97.8%), YouTube (88.1%), Telegram (83%), Cisco Webex (63%), ZOOM (38.5%), Edmodo (20%), and SHAREit (10.4%). When the spread of Covid-19 pandemic escalated, the ADE students began using all of the applications for their online classes. They can easily adjust and regulate usage of the applications based on their present experience because of familiarity with the technology. Similar to Roslaili et al., [10], the UiTM students have been exposed to basic technology as UiTM has incorporated learning technologies for some subjects. While technology continues to evolve as a highly effective tool for teaching and learning the ADE students' ability to use these applications would foster effective communication among peers and lecturers. Essentially, the development of virtual technology can further improve the effectiveness of the ADE students' learning method.

Table 3. Online Quiz Platform Used in Online Art Classes

Apps			
Kahoot!	95	70.4	1
Quizizz	58	43.0	2
Quizzer	56	41.5	3
Quiz Maker	54	40.0	4
Quiz Works	34	25.2	5
TriviaMaker	17	12.6	6
ProProfs Quizzes	16	11.9	7
Gimkit	15	11.1	8

Table 3 exhibits the eight most popular online quiz platforms for online Art lessons, ranked by the percentage of responses. Kahoot! is the most popular game application employed followed by Quizizz (43.0%), Quizzer (41.5%), Quiz Maker (40.0%), Quiz Works (25.2%), TriviaMaker (12.6%), ProProfs Quizzes (11.9%), and Gimkit (11.1%) were all used by 70.4 percent of students. Other online quizzes used by ADE students include Google Form, and Puzzle. This is the quiz platform that attracts the most attention, particularly from students who are doing their practical training. These applications are the simplest to use, and they are most suited for usage in a game-based learning environment.

5 Recommendations

This research has certain limitations which could be considered in future research. This include expanding the research to students in other departments and faculties. The perception of self-motivation in online learning could be further investigated by utilizing multidimensional multi-item questionnaires. Future research should look into whether there is a link between the problems that students encounter and the effectiveness of their strategies in making online learning more successful. Findings from this study are likely to assist educational institutions in improving online teaching and learning.

6 Conclusion

Findings from this study has revealed that ADE students encounter pertinent obstacles in their distant online learning. Importantly, results also have suggested that the selection of an appropriate platform affects learning process. Dependable online learning platforms could eliminate lagging or screen freezing, which not only distract students during an online session but could also cause mental frustrations. Hence, it is of utmost importance for students to devise a plan in overcoming the unforeseeable and foreseeable obstacles. Encouragement and support from lecturers and peers are indispensable to ensure that students' self-motivation remains high especially when distant online learning can be an experience of solitude.

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