

## **Model of Conceptual Framework for Studio Based Open and Distance Learning (ODL): A Case Study on Students' Emotions in the Faculty of Art and Design, Universiti Teknologi MARA, Perak Branch, Campus Seri Iskandar**

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*Abstract: UiTM's Faculty of Art and Design uses "studio-based learning." Art and design students must participate in studio conversations about their work. Malaysia too went through the MCO due to COVID-19 and this had influenced the way the education industry was run – Open and Distance Learning was applied to almost all courses. This study will examine the Technology Acceptance Model (TAM) and Pekrun Emotions and Learning Theory to assess how art and design students felt about COVID-19-related Open and Distance Learning (ODL) studio-based courses. This study will also identify students' emotions. The Technology Acceptance Model (TAM) was used to assess ODL studio-based students' tech attitudes. The Pekrun Emotion and Learning Theory was used to assess Art and Design students' technological attitudes. This study employed theoretical research to combine structured observation, questionnaires, and semi-structured interviews. The findings suggest that in studio based Open and Distance Learning (ODL)*

*classes, the Art and Design students' emotions should be considered prior, using technology acceptance, and after, using perceived usefulness and perceived ease of use when developing online studio learning. Technology adoption precedes technology utility and simplicity of use, according to the research. The research improves teaching and learning, especially studio learning. To better respond to students' feelings in the future, the online class should establish a healthier teaching and learning environment.*

*Keywords: Online Learning, Studio Based, Students Emotion*

## **INTRODUCTION**

Between the years 2020-2022, Malaysia was plagued with the COVID-19 virus, which had infected practically every country. The government was forced to enforce the Movement Control Order (MCO) limitation to slow the spread of the virus. The Movement Control Order (MCO) implementation in Malaysia had affected many sectors, especially the education system. Due to the virus' spreading ability, colleges and universities sent their students home, following The Ministry of Higher Education's guidelines to protect students. Therefore, online learning shifted to keep up with semester-long learning. Open and Distance Learning (ODL) replaced traditional classrooms and studio-based Art and Design programs. This innovative technique for learning was offered to students. The unanticipated break from the norm made catching up difficult for students. Each student had different constraints when using these methods. Slow internet, a lack of tangible instruments for the studio-based lesson, a lack of a suitable place to remain between sessions, and the need for students to share devices with siblings were some of the obstacles faced. The students could not concentrate in class and feared falling behind. Due to online distance learning's limited skill set, some pupils felt apprehensive. This research will immediately affect online course materials. If the curriculum is handled well, the online platform will become more reliable and be more than just a supplement to school.

Malaysia is one of the countries affected by the COVID-19 virus, which has now infected nearly every nation on earth. The government was obligated to apply the Movement Control Order (MCO) restriction to slow the spread of the COVID-19 virus due to the rapid growth in the number of

patients and the high death rate during the virus' initial waves. This action was taken to combat the outbreak. The implementation of the Movement Control Order (MCO) in Malaysia has had repercussions on a vast array of existing sectors. The education system in Malaysia is evidently one of the areas that has suffered the most. Due to the potential for the virus to spread, all colleges and universities were ordered to send their students home. Universiti Teknologi MARA (UiTM) adhered to the direction of the Ministry of Higher Education to ensure that each student on campus traveled home safely. However, during that period, it was vital to keep up with the learning during the semester, which shifted to online learning. Open and Distance Learning (ODL), a novel mode of education that replaces traditional face-to-face physical classrooms and studio-based programmes with teaching given via an online platform, is now available to Art and Design majors (Fleischmann, 2020; Gogu & Kumar, 2021). Students were introduced to this new manner of schooling as a new approach to learning. As a result of the unanticipated deviation from the usual, the catching-up procedure presented a few obstacles for pupils. This is since each student has their own unique restrictions when it comes to Open and Distance Learning (ODL). These constraints include a sluggish internet connection, a lack of physical tools for the studio-based lesson, a lack of a suitable place to stay during classes, and, in certain circumstances, the necessity for students to share gadgets with their siblings (Elfirdoussi et al., 2020). The pupils were unable to concentrate in class and believed they were slipping behind during the semester as a result of recent events. Due to the limited skill set they could master and acquire through online distance learning; students also felt uneasy. This research will have an immediate impact on the course content that is included in the syllabus for online platforms. Moreover, if the curriculum is treated appropriately, the online platform will become more dependable, and it will become more than a supplementary mode of education in the future. Considering this, all the challenges the students encountered while using the Open and Distance Learning (ODL) technique will be rectified, and a more conducive learning atmosphere will be created during online class sessions to better accommodate the students' emotions. The objective of this study is to determine how art and design students felt about the Open and Distance Learning (ODL) approach in studio subjects during the Movement Control Order (MCO).

## **OPEN AND DISTANCE LEARNING (ODL)**

Open and Distance Learning (ODL) is an acronym that was derived from the Universiti Teknologi MARA, UiTM Guidelines. ODL refers to open teaching and learning sessions that take place at a distance. The teaching and learning process conducted by the lecturer takes place in its own space and time, separate from that of the students. This aligns with the beliefs of YB Tan Sri Amar Dr. Sulaiman Bin Hj. Daud, who served as the Minister of Education in Malaysia in 1993. Dr. Sulaiman Bin Hj. Daud maintains that access to education should not be contingent on factors such as age, gender, social status, or race. A reform in terms of teaching and learning cannot be achieved if the teaching and learning process is still maintained face-to-face and in the traditional manner at the university level. As a consequence of this, the implementation of Open and Distance Learning (ODL) was appropriate when the government implemented the Movement Control Order (MCO) during the spread of the COVID-19 epidemic. As a result of this, Universiti Teknologi MARA implemented preventative measures in order to ensure that its students continued to receive instruction and participate in educational activities despite the COVID-19 epidemic. The Open and Distance Learning Program is provided by the Academic Affairs Division of MARA University of Technology (ODL). Students are afforded the opportunity to acquire knowledge in a variety of ways and through a variety of access points thanks to this. The term “flexible” refers to the ability to carry out the process of teaching and learning in a variety of settings; “access” refers to the freedom of students to make use of space and time; and “various modes” refers to the integration of technological tools into the teaching and learning process (Norazrina Ag-Ahmad, 2020). The method and process of teaching and learning in Open and Distance Learning (ODL) do not target or emphasise the issue of students’ attendance to class; rather, they emphasise the involvement and emotions of the students when the teaching process is taking place. This is in contrast to the method and process of teaching and learning in traditional classrooms, which target or emphasise the issue of students’ attendance to class. As a consequence of this, the lecturer’s observation of the students’ involvement and emotions is extremely important and needs to be documented in order to achieve the quality of Open and Distance Learning (ODL) when the teaching and learning process between lecturers and students is put into practice.

## **STUDENTS' ATTITUDES TOWARDS ONLINE LEARNING SESSIONS**

Students are affected by internet-based education and learning. It can also have an effect on one's mental, physical, emotional, and social wellbeing. There are studies that suggest it is related to screen exposure - exposure to the screen for four or five hours will indirectly make it difficult for us to sleep and will subsequently experience emotional disturbances, according to psychologists (Blume et al., 2019). Students must be engaged to gain maximum learning because online learning involves intense concentration. Environmental elements are also crucial in dealing with students' emotions while they are learning online. During class, students are exposed to various external variables that interfere with focus, such as parents who are unconcerned about the ambiance of their students' online classes and frequently ask students to help with household chores while the class is in session. Students are unable to fully concentrate in class since they must move from one location to another while doing their assignments. As they feel embarrassed towards the other classmates, the students' emotions will be volatile in this situation. As a result, when students are in class, they will have lower self-esteem than they did before, and also worry about their academic achievement and future employment possibilities (Sundarassen et al., 2020).

## **METHODOLOGY**

When it comes to ensuring that the goal of the research can be attained, the method that is chosen to conduct the research is of the utmost importance. The current study employed a theoretical research approach because it gave the researchers the opportunity to investigate the Technology Acceptance Model (TAM) (Silva, 2015) and the Pekrun Emotions and Learning Theory (Ramlie et al., 2020; Ali & Ramlie 2021) in studio-based Open and Distance Learning (ODL) in order to recognise Art and Design students' emotions during Covid-19. Structured observation, questionnaires, and semi-structured interviews were the three methods of data collection incorporated into the research in order to gain an understanding of the feelings experienced by the Art and Design students. In order to ensure that this research was successful

in accomplishing its goals, a total of 362 students from the faculty of art and design participated in it. This investigation was carried out within the photography and creative imaging, fashion, the graphic design, the ceramics, and the fine art departments.

## STRUCTURE OBSERVATION

The purpose of conducting structure observation in this study was to capture the natural surroundings of Open and Distance Learning (ODL) studio-based art and design students as well as their feelings while they were participating in the online studio during the Covid-19 pandemic. As a consequence of this, the researcher assumed the role of an observer in the online studio class in order to collect primary data on levels of satisfaction, attitudes, and behaviours. The most essential aspect of this endeavour was to compile a list of both positive and negative feelings regarding art and design while participating in open and distance learning (ODL) studio-based learning. Following the completion of the observation, the researcher entered the data into Table 1.

Department (Diploma)	Student Percentage	Satisfaction Percentage	Attitude Percentage	Behaviour Percentage	Positive Emotion Percentage	Negative Emotion Percentage
Fashion	39.8%	39.8%	39.8%	39.8%	10.2%	29.6%
Ceramic	4%	4%	4%	4%	0.5%	3.5%
Fine Art	7.5%	7.5%	7.5%	7.5%	1.3%	6.2%
Graphic and Media Digital	23.8%	23.8%	23.8%	23.8%	15.7%	8.1%
Photography and Creative Imaging	24.9%	24.9%	24.9%	24.9%	7.2%	17.7%

**Table 1. The percentage of 362 students enrolled in Art and Design courses who took part in structured observation as part of studio-based Open and Distance Learning (ODL) classes.**

The results are presented in Table 1 as follows: During Open and Distance Learning (ODL) studio-based classes, structured observation was completed on 39.8% of students enrolled in fashion, 4% of students enrolled in ceramics, 7.5% of students enrolled in fine art, 23.8% of students enrolled in graphic and media digital, and 24.9% of students enrolled in photography

and creative imaging. During the Open and Distance Learning (ODL) studio-based class, researchers used a method called “structured observation” to focus on the positive and negative emotions that Art and Design students experience. Table 2 displays the findings of the researchers regarding both positive and negative feelings.

<b>Department (Diploma)</b>	<b>Positive Emotion Percentage</b>	<b>Negative Emotion Percentage</b>
Fashion	10.2%	29.6%
Ceramic	0.5%	3.5%
Fine Art	1.3%	6.2%
Graphic and Media Digital	15.7%	8.1%
Photography and Creative Imaging	7.2%	17.7%

**Table 2. The structured observation result of positive and negative emotion of Art and Design students during Open and Distance Learning (ODL) studio-based classes.**

According to the findings presented in Table 2, 29.6% of fashion students experienced unfavourable feelings because they were unable to participate in hands-on learning experiences or use workshop and studio facilities like sewing and embroidery machines. On the other hand, 10.2% of fashion students had favourable feelings while taking Open and Distance Learning (ODL) classes. Only 0.5% of ceramic students experienced positive emotions during Open and Distance Learning (ODL) classes, whereas 3.5% of ceramic students had negative emotions as a result of the constraints in using the facilities that are available in the studio. These facilities include ceramic firing facilities, glaze studios, and raw material facilities such as clay. Fine art students faced challenges in completing existing works that require facilities such as wood workshops, iron workshops, and printmaking facilities. In addition, 6.2% of fine art students experienced negative emotions, and 1.3% experienced positive emotions during Open and Distance Learning (ODL) classes. 17.7% of students studying photography and creative imaging experienced difficult feelings as a result of the constraints imposed by photography equipment, such as the absence of studio lighting. As a consequence of that, there is an absence of creativity in the work that the students produced, and only 7.2% of them had positive emotions while they

were participating in Open and Distance Learning (ODL) classes. However, during Open and Distance Learning (ODL) classes, 15.7% of graphic and media digital students had positive emotions because they did not depend on the facilities of the workshop and studio to complete the work, while only 8.1% had negative emotions.

## QUESTIONNAIRE

As can be seen in Table 3, there were 362 people who responded to the preliminary questionnaire that was distributed. Students in Art and Design were given the questionnaire to fill out in order to collect preliminary feedback from them regarding their attitudes toward Open and Distance Learning (ODL) studio-based courses. While participating in open and distance learning (ODL), only 15.8% of students experienced positive emotions, while 84.2% experienced negative emotions because the limitation of the use of studio and workshop facilities in completing the work. During the studio-based portion of the Open and Distance Learning (ODL), 216 out of 362 respondents experienced negative emotions, while 40.3% experienced positive emotions. As a result, 67.2% of people think that Open and Distance Learning (ODL) Studio Based should be improved in the future, whereas 32.8% of people think that this shouldn't happen. It has been established, on the basis of the results of the questionnaire, that Art and Design students' emotions during Open and Distance Learning (ODL) in a studio environment ought to be improved in the near future.

Questionnaire	Positive	Negative
How do you feel during the Studio Based Open and Distance learning (ODL) classes?	15.8%	84.2%
Were you satisfied with your emotions during Studio Based Open and Distance Learning (ODL) classes?	40.3%	59.7%
Do you think that Studio Based Open and Distance learning (ODL) classes for Art and Design students should be enhanced in future?	67.2%	32.8%

**Table 3. The percentage of 362 Art and Design students who answered a questionnaire about their feelings while participating in Open and Distance Learning (ODL) studio-based learning.**



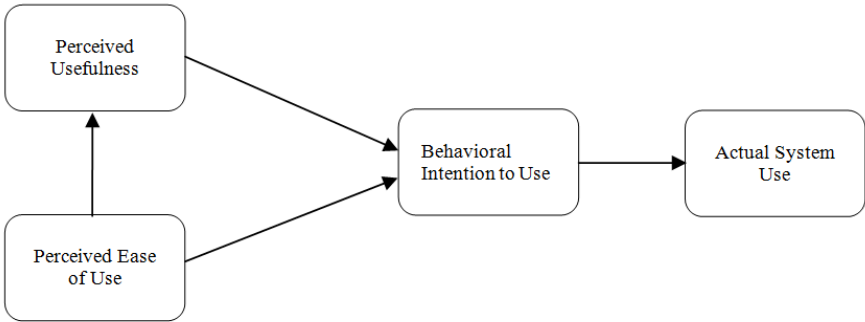
## **SEMI-STRUCTURED INTERVIEWS**

Interviews are a very important method, as stated by Sulaiman Shamsuri (2006), for gaining an understanding of the perspective that an individual has on a given circumstance. For the purpose of this research, semi-structured interviews were used, and a total of 20 questions were posed to a select group of art and design students hailing from five distinct academic disciplines: fashion, ceramics, fine art, graphic and media arts, and photography and creative imaging. This method is used to identify the students' feelings during the Open and Distance Learning (ODL) studio-based class that they were taking. The semi-structured interviews lasted anywhere from fifteen to thirty minutes for each student. Structured and unstructured interviews are both a part of the semi-structured interview process. Both types of interviews are conducted. The researcher compiled a list of questions that will be asked of each and every student in the Art and Design programme. Additional questions were asked by the researcher during the interview session in order to elicit additional information regarding the feelings experienced by the student while participating in the Studio-Based Open and Distance Learning (ODL) classes.

## **RESULTS AND DISCUSSION: TECHNOLOGY ACCEPTANCE MODEL (TAM) AND PEKRUN EMOTIONS AND LEARNING THEORY**

This research aims to investigate the Technology Acceptance Model (TAM) and the Pekrun Emotions and Learning Theory in order to determine the feelings that art and design students have towards studio-based Open and Distance Learning (ODL) courses that were offered during COVID-19. Additionally, the findings of this investigation will be used to identify the emotions that these students had. Within the Open and Distance Learning (ODL) Studio, the Technology Acceptance Model (TAM) serves as the foundation for determining how students feel about their use of various technological tools. Pekrun's Emotion and Learning Theories were consulted in order to determine the students of Art and Design's emotional states. The Technology Acceptance Model entails the following: (TAM), it is a description of the factors that influence user behaviour with regard to the utilization of technology and the technology acceptance model hypothesis. In other words, it describes the variables that drive user behaviour, or is a

description of the factors that drive user behaviour. A person’s conviction that they will profit in some manner from using a particular piece of technology is one of the factors that can encourage them to utilize it. The second issue that must be taken into account is the user’s ability to benefit from the technology. Before deciding whether or not to use this kind of technology, the user should carefully think about the two points above (Silva, 2015).



**Table 3. The percentage of 362 Art and Design students who answered a questionnaire about their feelings while participating in Open and Distance Learning (ODL) studio-based learning.**

Pekrun’s theory of the relationship between acceptance and learning predicts that the different emotional states that a person goes through before and after learning are directly related to one another. However, the findings of the study suggest that these relationships do not hold true. Pekrun’s theory of emotions and learning, which postulates a link between the two ideas, lends credence to this assumption and provides support for it. Pekrun was kind enough to provide his feedback on the investigation’s findings, which we are very grateful for.

<b>Object Focus</b>	<b>Positive</b>		<b>Negative</b>	
	<i>Activating</i>	<i>Deactivating</i>	<i>Activating</i>	<i>Deactivating</i>
<b>Activity Focus</b>	- <i>Enjoyment</i>	- <i>Relaxation</i>	- <i>Anger</i> - <i>Frustration</i>	- <i>Boredom</i>
<b>Outcome Focus</b>	- <i>Joy</i> - <i>Hope</i> - <i>Pride</i> - <i>Gratitude</i>	- <i>Contentment</i> - <i>Relief</i>	- <i>Anxiety</i> - <i>Shame</i> - <i>Anger</i>	- <i>Sadness</i> - <i>Disappointment</i> - <i>Hopelessness</i>

**Fig. 2 The Theory of Pekrun Emotions and Learning**

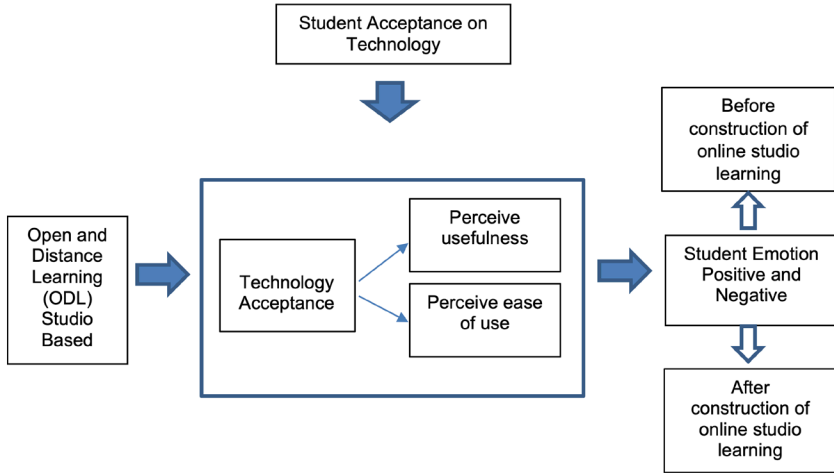
When a person deliberately activates their positive emotions prior to beginning a learning session, those positive emotions are indirectly triggered throughout the learning process, which results in the emergence of additional happy emotions after the learning session has come to a close. If, on the other hand, individuals are miserable before they learn something, they will continue to be miserable after having acquired that knowledge. This has been demonstrated by education-related research that was conducted in the past (Ramlie et al, 2020; Ali & Ramlie, 2021).

## **MODEL OF THE CONCEPTUAL FRAMEWORK**

According to William (2008), a conceptual framework or conceptual model is a visual, written product that depicts graphically or narratively and relates to each other's information. Combining theoretical understanding with practical application enables the development of a conceptual framework that is informed by the goals of the researcher's research. The best way to describe a conceptual framework is graphically, using arrows to show how different aspects are related to one another. Because of this, the researcher proposes this conceptual framework as a guideline for more positive reactions and feelings among Art and Design students during studio-based Open and Distance Learning (ODL) learning in the hopes of enhancing future online studio learning. The Technology Acceptance Model will be used throughout the construction of the conceptual framework for this research project. This will allow for a greater understanding of the way the implementation of technology, notably the online platform, affects

pupils. This is because the online platform employed has an indirect effect on students' perceptions of the platform's usability and usefulness prior to enrolling in an online class. Students who can take online studio classes and have completed online exams prior to the start of a virtual session should feel good about themselves. In the context of this study, the researcher will analyse the feelings of students both before and after their participation in online classes involving studio subjects using an online platform used in lecture sessions during the movement control command period. This rating will be based on a variety of enjoyment-related factors.

The cognitive load level assessment instrument can be subdivided into two distinct groups. The mood and motivation measuring instruments can be administered by either self-questionnaires or specialised hardware, according to how the cognitive load level assessment instrument can be subdivided. In order to determine how students feel about their education, the researcher resorted to the use of a questionnaire in the course of this investigation. The Achievement Emotions Questionnaire (AEQ), which corresponds to Pekrun's Control Value Theory, served as the basis for the development of this questionnaire. The levels of students' happiness, optimism, pride, anger, anxiety, humiliation, hopelessness, and boredom will be measured using this value control theory before and after they sign up for online programmes. This will be done so that the theory can be validated. Acceptance of the online platform itself is one of the criteria that influences whether students' positive or negative emotions are triggered prior to the start of class. This is determined by the theoretical Technology Acceptance Model. In spite of this, negative feelings will be recorded if platform or internet access problems cause students to feel something other than happy or sad while the online class is in session, or if the opposite is true.



**Fig. 3 Open and Distance Learning (ODL) Studio Based Conceptual Framework proposed**

## **CONTRIBUTIONS, LIMITATIONS AND RECOMMENDATION OF THE STUDY**

The research makes a significant contribution to the process of teaching and learning, particularly for students who are engaged in studio-based learning or who are studying Art and Design programs. In spite of the fact that open and distance learning (ODL) is of paramount significance in the modern, interconnected world, the teaching and learning procedures associated with the studio subject are severely constrained. This is due to the fact that students participating in Open and Distance Learning (ODL) are restricted in their ability to use the Art and Design workshop and studio equipment to its full capacity. This includes the iron workshop, wood workshop, ceramic workshop, sewing workshop, and lighting studio. Students have a difficult time managing the various pieces of equipment in the studio and the workshop because of this. In addition to this, classroom activities such as workshops and equipment demonstrations that take place online have a smaller impact on students. During the course of studio-based open and distance learning (ODL), this circumstance contributes in a roundabout way to the feelings experienced by the art and design students. This research

has made an effort to address the issue by putting forward a model that is centred on the conceptual framework for Open and Distance Learning (ODL) and has a studio-based setting.

## **CONCLUSION**

In a broad sense, the primary objectives of this study are to investigate the feelings that art and design students have towards studio online learning while participating in COVID-19. The happiness that students of art and design experience as a result of participating in studio-based online learning can be interpreted as a positive step towards the improvement of studio-based subjects. As a result, the following stage of development, which will take place in the not-too-distant future, will consist of conducting an investigation into the practicability of teaching a studio-based subject in an online setting. In order to achieve the objectives of this investigation, the conceptual framework that has been developed will be utilised. The researcher will then move on to the next stage of the process, which entails determining the mental responses that the students had to the online learning session. The findings of this study will hopefully lead to enhancements being made to online studio classes in the near or distant future.

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## REFERENCES

- Ali, A. Z., & Ramlie, M. K. (2021). Examining the user experience of learning with a hologram tutor in the form of a 3D cartoon character. *Education and Information Technologies*, 26(5), 6123–6141. <https://doi.org/10.1007/s10639-021-10609-w>
- Blume, C., Garbazza, C., & Spitschan, M. (2019). Effects of light on human circadian rhythms, sleep and mood. *Somnologie*, 23(3), 147–156. <https://doi.org/10.1007/s11818-019-00215-x>
- Coman, C., Țîru, L. G., Meseșan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online teaching and learning in higher education during the Coronavirus Pandemic: Students' Perspective. *Sustainability*, 12(24), 10367. <https://doi.org/10.3390/su122410367>
- Elfirdoussi, S., Lachgar, M., Kabaili, H., Rochdi, A., Goujdami, D., & El Firdoussi, L. (2020). Assessing distance learning in higher education during the COVID-19 pandemic. *Education Research International*, 2020, 1–13. <https://doi.org/10.1155/2020/8890633>
- Fleischmann, K. (2020). The online pandemic in Design Courses: Design Higher Education in digital isolation. *The Impact of COVID19 on the International Education System*, 1–16. [https://doi.org/10.51432/978-1-8381524-0-6\\_1](https://doi.org/10.51432/978-1-8381524-0-6_1)
- Gogu, C. V., & Kumar, J. (2021). Social connectedness in online versus face-to-face design education: A comparative study in India. *Design for Tomorrow—Volume 2*, 222, 407–416. [https://doi.org/10.1007/978-981-16-0119-4\\_33](https://doi.org/10.1007/978-981-16-0119-4_33)
- Kay, J. (2008). Lifelong learner modeling for lifelong personalized pervasive learning. *IEEE Transactions on Learning Technologies*, 1(4), 215–228. <https://doi.org/10.1109/tlt.2009.9>

- Norazrina Ag-Ahmad. (2020). Open and Distance Learning ODL): Preferences, Issues and Challenges amidst Covid-19 Pandemic. *Journal of Creative Practices in Language Learning and Teaching (CPLT)*
- Ramlie, M. K., Ali, A. Z., & Rokeman, M. I. (2020). Design approach of Hologram tutor: A conceptual framework. *International Journal of Information and Education Technology*, 10(1), 37–41. <https://doi.org/10.18178/ijiet.2020.10.1.1336>
- Silva, P. (2015). Davis' Technology Acceptance Model (TAM) (1989). *Information Seeking Behavior and Technology Adoption*, 205–219. <https://doi.org/10.4018/978-1-4666-8156-9.ch013>
- Sulaiman Shamsuri. (2006). Research Methods for Social Sciens. Malaysia: *DSS Publishing Entreprise*
- Sundarasan, S., Chinna, K., Kamaludin, K., Nurunnabi, M., Baloch, G. M., Khoshaim, H. B., Hossain, S. F., & Sukayt, A. (2020). Psychological impact of covid-19 and lockdown among university students in Malaysia: Implications and policy recommendations. *International Journal of Environmental Research and Public Health*, 17(17), 6206. <https://doi.org/10.3390/ijerph17176206>
- Williams, J. (2005). Teaching writing in second and foreign language classrooms. *New York: McGraw-Hill*