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Online Learning Satisfaction Among Tertiary Learners in Malaysia and Thailand: Recommendations for Post COVID-19

Manjet Kaur Mehar Singh[1*], Karansupamas Eng-chuan[2], Nurain Adliyana binti Noordin[3]

[1]School of Languages, Literacies & Translation, Universiti Sains Malaysia, Malaysia.
Email: manjeet@usm.my
[2]Mahidol University, Thailand.
Email: fujianmanster@gmail.com
[3]School of Languages, Literacies and Translation, Universiti Sains Malaysia, Malaysia.
Email: ainadnoordin@gmail.com

CORRESPONDING AUTHOR (*):
Manjet Kaur Mehar Singh
(manjeet@usm.my)

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ABSTRACT

The COVID-19 pandemic, which began in early 2020, has exponentially changed how education is delivered to higher education students in Malaysia and Thailand. The current teaching and learning routine, which relied heavily on face-to-face interaction between educators and learners, as well as blended education to some level, was disrupted when the world was attacked by the COVID-19 pandemic. The pandemic's disruptions forced higher education (HE) to continue their teaching and learning activities through an emergency remote learning/online learning system. The new teaching and learning mechanism has influenced how tertiary students learn. This quantitative study was conducted among a group of tertiary level undergraduates to determine their satisfaction with online learning. According to the data, the majority of undergraduate students prefer hybrid or blended education over online education. This implies that post-COVID teaching mode adjustments are required. Future changes, such as a focus on blended form teaching, must be considered.

Contribution/Originality: This study one of very few studies which have investigated online learning satisfaction among Malaysian and Thailand tertiary learners. At the same time, the study has contributed to the existing literature with recommendations to promote online learning experience and satisfaction among tertiary learners.

1. Introduction

With growing concerns about the spread of COVID-19 and the medical effectiveness in containing it, an emergency lockdown was established in every part of the world. In Malaysia, the first lockdown occurred on March 18, 2020, and in Thailand on March 26, 2020. As a result, every tertiary institution throughout the world is implementing mandatory shutdowns. To put it simply, universities all over the globe are either closing or on the verge of closing and shifting their focus to online and remote learning (Ali, 2020).

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From there, higher education in both Malaysia and Thailand is adopting emergency remote online learning to ensure health safety while also maintaining continuity in education programmes. According to Kumar et al. (2021), the entities most affected by the implementation of remote online learning are educators and learners, as a result of the format shift in learning methodology. The reason for this is that the rapid adoption of remote online learning has revealed massive vulnerabilities emerging in education systems all over the world. Further improvement can be made in ensuring the complete efficiency and effectiveness of online learning for its stakeholders (Ali, 2020). Higher education institutions are inevitably moving toward more online learning or the use of e-learning.

Prior to the pandemic and the complete implementation of remote online learning for every student worldwide, a few of the higher education institutions were already gradually integrating digital assistance into their teaching and learning processes. According to Scully, Lehane, and Scully (2020), the usage of digital technology in education to support the teaching and learning process has been increasing for years. However, it is still in the trial stage, and there are several gaps that require further refinement and modification. Despite this, the educator had the option of incorporating digital assistance and online learning into their teaching process. Students were still given the choice of selecting their preferred learning method. It is reasonable to conclude that back then, the majority of students preferred the traditional chalk and board with a physical class of teaching-learning process since it was the first approach that they were exposed to and provided more direct engagement. Most teachers, and even educators, favour the conventional methods since their pedagogical training anticipates that the teaching process will take place in a face-to-face environment, thus that is the only mode they are exposed to and trained for (Marshall, Shannon & Love, 2020). Furthermore, as most institutions continue to rely only on the conventional process of teaching and learning, student and teacher assessments are simply designed with that approach in mind.

Nevertheless, owing to the sudden implementation of remote online learning as a consequence of the COVID-19 pandemic, educators must instantly transition their teaching process without sufficient training and resources. Educators must also completely redesign students' assessments and the delivery of teaching material in a short period of time to ensure that the continuous process of teaching and learning is not disrupted. They, like students, are deemed mandatory for remote online learning as it is the sole solution with the current global situation. With the abrupt transition and scarcity of digital resources, both learners and educators struggle to adapt both mentally and physically. As a result, students with inadequate adaptability to the new online remote learning setting struggle, particularly with concentration and motivation (Biwer et al, 2021). Hence, the intention of this paper is to analyse the level of satisfaction and perception of higher education learners with the dramatic changes in the mode of learning during the COVID-19 pandemic.

1.1. Background of the Study

When it comes to evaluating students' levels of satisfaction and perception, one of the best methods to do so is through their feedback and experiences, especially considering the sudden shifts in the learning methodology during the COVID-19 pandemic. Moreover, there are several internal and external factors to consider that add to their level of satisfaction and personal perception with remote online learning.

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The effectiveness of remote and online learning is one of the most significant aspects to examine when it comes to student satisfaction and perception. With sudden shifts in teaching and learning methods, surroundings, environment, and setting, the effectiveness of virtual learning would never be the same as that of a physical class with the integration of technology and learning (Ferri, Grifoni, & Guzzo, 2020). Even if certain alterations or modifications are being made to ensure the effectiveness of the learning process, the quality and value of delivering and receiving from both educators and learners remain ambiguous. Students' comfort with online learning is closely related to their affective domains, which include their emotions, feelings, and attitudes as a result of the sudden changes in learning and teaching style (Syaui, Munadi, & Triyono, 2020). Moreover, the main distinction between traditional teaching-learning methods and online learning is the incorporation of digital technology. It is undeniable that, because everything is virtual, the integration of the learning process with technology is undeniable. From there, one should consider the student's level of satisfaction and perception, given that the transition to such a learning approach is abrupt, with no adequate training or material.

1.2. Issue of Investigation

With the complete integration of technology and reliance on digital assistance in remote and online learning, both educators and students are also having difficulty adapting to changes that were previously intended to be temporary. However, after some time, that temporary adjustment appears to be the only long-term solution and may be deemed permanent in the future. Despite this, students and their academic resilience are among the stakeholders who are heavily affected by the sudden changes in education methods (Eva, Parameitha, Farah, & Nurfitriana, 2021).

By taking a few factors into account that have a direct impact on their level of satisfaction and personal perceptions of remote online learning, the possibilities for implementing changes for greater improvement may be realised, benefiting both of the involved stakeholders. The mandatory online learning transition compels students to learn how to use online learning and the management system, before attending the online class, in the shortest amount of time feasible with little to no training and preparation. In summary, there is insufficient time spent considering the advantages and disadvantages, and no adequate strategies are being developed. Hence, the quality of online teaching and learning may be directly compromised. The students' most significant challenge during online learning was a poor Internet connection (Hayashi, Garcia, Maddwin, & Hewagamage, 2020). Students' efficacy and efficiency in online learning will be hampered by a low internet connection strength, since they rely entirely on their phone network for learning, online tutorials, and staying connected with their professors. When it comes to students' affective domains, the sudden transition and the unstable internet connection have already had an impact. It becomes much more difficult when their assessments must be completely revised to accommodate the online learning environment. For instance, lecturers must convert final examinations into coursework or online tests, completely altering the grading system.

Furthermore, certain universities and colleges in Malaysia and Thailand continue to lack infrastructure and resources, particularly for enabling online learning. When it comes to online learning during a pandemic, one of the most undesirable circumstances is when higher education learners are unable to continue their online learning owing to

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inadequate management system facilities supporting their online learning process. In Malaysia, particularly, there is still an infrastructural gap in internet penetration between West and East Malaysia, which has a detrimental impact on the efficiency and efficacy of online learning. Due to internet limitations, students have difficulty interacting with their lecturers and peers, which reduces their engagement and group discussion in developing active learning during an online class.

In Thailand, Mahidol University employed blended teaching based on the nature of the programmes and in accordance with procedures to prevent and regulate the spread of COVID-19 (Mahaisavariya, 2020). This is because previous studies that were conducted in Thailand to evaluate students' views and perceptions of online learning stated that students can learn online. However, the majority of students prefer face-to-face classrooms, as they believe them to be more comfortable than online classrooms (Imsa-ard, 2020). This implementation enables for the continuation of lessons without the need to close the universities or colleges (Sia & Adamu, 2020).

1.3. Research Question

i. What is the level of satisfaction among Malaysian and Thai tertiary learners toward remote online learning?

1.4. Research Objective

i. To evaluate the satisfaction level of Malaysian and Thai tertiary learners toward remote online learning.

1.5. Significance of the Study

The findings of this study will provide insight, particularly to the higher education institutions and relevant parties, into Malaysian and Thai undergraduates' level of satisfaction and perception of online remote learning during the COVID-19 pandemic. It may make the outcomes of this study known to the higher education institutions and relevant parties, while also being able to make adjustments in enhancing the students' condition with remote learning. This study will be useful for future researchers who seek to know about students' satisfaction and perception of online learning during the COVID-19 pandemic.

Furthermore, higher education institutions and the relevant parties in Malaysia and Thailand can benefit from the study by reconsidering the effectiveness of the methods or additional components used in teaching and learning. As a result, it is envisaged that this study would be able to alter and enhance the method with any additional component for online remote learning in realigning with students' satisfaction and perception throughout the COVID-19 pandemic. Moreover, the study's findings offer significant implications and insightful suggestions for students who are experiencing online learning in providing optimal assistance with the teaching and learning process, particularly from Malaysia and Thailand Higher Education.

2. Methodology

This section outlines the research design, data gathering methods, instrumentation, and processes utilized in this study.

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2.1. Research Design

The current study employed a quantitative method of descriptive survey approach. This survey study serves as a framework for matters relating to data sampling, analysis, and measurement. Descriptive research is used to describe the characteristics of the population of the phenomenon being investigated. As a result, the aim of this research is to ascertain the satisfaction and perception of remote online learning among undergraduates in higher education institutions.

This study used a quantitative research method to identify current students' concerns and online educational conditions, in order to formulate the most comprehensive educational policy for the current educational situation.

2.2. Instruments

Questionnaire was applied in this study. The items in the questionnaire comprise of rating scale questions and multiple-choice questions that the respondent was required to answer in order to answer the research questions. Since the quantitative research method was employed to gather data for this study, the online questionnaire was used to elicit responses from the respondents using the online application. This survey included 520 university students from both public and private universities in Thailand. These students are freshmen, sophomores, juniors, and seniors. The respondents were selected on intentionally due to the COVID-19 pandemic. As a result, the purposive sampling technique was utilized to generate the sample for this study. The data was gathered by intentionally sending the online questionnaire to the respondents.

2.3. Data Collection Procedure

The study started with the distribution of the online questionnaire to undergraduate students in Malaysia and Thailand. After the respondents have completed the questionnaires, they were collected and collated for the researcher to analyse in support of the research project. The questionnaire is used to assess higher education learners' satisfaction and perception of online remote learning. Essentially, the purpose of the questionnaire is to learn about undergraduates' satisfaction and perception of online learning, as well as to gain insight into their own personal perspectives.

The data collection process began with contacting students at both public and private institutions in Thailand, who were available and convenient for online interaction. They had to access the online questionnaires whenever it was convenient for them to answer the questions. When the questionnaires were fully completed, they were returned to the researcher. Following that, all questionnaires were compiled and the responses were analysed.

2.4. Data Analysis

The questionnaire data was evaluated using simple statistical analysis. The statistical instrument of percentage was applied to derive the findings from the statistical data analysis.

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3. Findings

The aim of this research is to determine online learning satisfaction among tertiary learners in Malaysia and Thailand during COVID-19 and to provide learning recommendations for after the pandemic is over. The questionnaires were completed by 520 university students from Malaysia and Thailand, who were studying online. According to Table 1, the respondents' ages range from 19 to under 30 years of age. The majority of the respondents are between the ages of 19 and 21, accounting for 69.4%, and between the ages of 22 and 24, accounting for 25.20%. The majority of students are second-year students, accounting for 48.70%, followed by first-year students accounting for 35.40%. Out of the 520 respondents, 68.1% are female, while 29.8% are male.

Table 1: Demographic information of the respondents (n = 520)

General Information	Number	Percentage
Gender		
Male	155	68.10
Female	354	29.80
Others	11	2.10
Age		
19 - 21 years	361	69.40
22 - 24 years	131	25.20
25 - 27 years	16	3.10
28 – 30 years	12	2.30
Undergraduate Level		
Year 1	165	35.40
Year 2	227	48.70
Year 3	26	5.60
Year 4	45	9.70
Year 5	3	0.60

4. Discussion

In terms of whether face-to-face learning is more effective than online learning, the majority of respondents, as in Table 2 agreed that face-to-face learning is more successful than online learning since they can meet and communicate directly with the speaker. Aside from that, 63% of the respondents regarded online mode to be more beneficial than face-to-face mode for learning during COVID-19. Following that, a sizable percentage of respondents (88%) preferred blended learning, which included face-to-face and online learning, as being more effective. As a result, in order to continue effective teaching and learning, it is vital to integrate the learning methods.

Table 2: Online Learning Satisfaction

Item	Strongly agree	Agree	Disagree	Strongly disagree
Face-to-face mode is more effective that online mode for learning.	32.3	57.11	8.07	2.50
Online mode is more effective than face-to-face mode for learning during COVID-19.	28.65	33.84	27.3	10.19

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Synchronous (live session) mode is more effective for online learning.	30.38	50.96	14.42	4.23
Asynchronous (not live session) mode is more effective for online learning	27.19	46.15	20.57	5.57
Integration of synchronous and asynchronous mode is more effective for online learning	34.42	52.50	10.19	2.88
Training on the use of online platforms and other applications helps for effective online learning.	38.27	50.38	9.04	2.01
Online discussions are more comfortable compared to face-to-face discussions.	30.00	42.50	17.69	9.81
Online discussions allow sufficient time to think and respond.	29.04	50.00	15.38	5.58
Online learning eases the ability to communicate with lecturers throughout the semester.	30.00	45.38	16.35	8.27
Lecturers play the same role in online learning as in face-to-face learning.	31.35	49.04	13.27	6.35
Use of technology improves creativity of lecturers in online learning.	36.35	50.77	9.42	3.46
My needs as a student are met in the online learning environment.	28.65	43.85	18.46	9.04
Online learning is enjoyable for me.	29.04	43.27	17.88	9.81
Online learning can replace face-to-face learning.	25.58	39.62	18.08	16.73
The sense of belonging to the online learning community helps me interact with other students.	26.35	44.81	18.85	10.00
Online learning environment promotes sufficient sharing and caring among students.	30.96	42.50	16.73	9.81
Online learning is safe, and promotes group work.	30.58	47.31	13.85	8.27
I received timely feedback on assessments.	26.35	52.12	14.23	7.31
I participate in learning.	28.27	45.96	16.73	9.04

Table 2 shows that in terms of synchronous mode (live session) is more effective for online learning, more than 80% strongly agreed or agreed. The majority of students thought that live learning allows them to meet face-to-face and directly obtain solutions if they do not understand the lesson. On the contrary, the majority believed that asynchronous mode (rather than live session) is more effective for online learning. The majority of respondents agreed that video lessons are suitable for individuals who do not have time to attend classes and may use them for review. Nevertheless, 85% of respondents agreed or strongly agreed that a successful online learning process should include both synchronous and asynchronous modes.

In terms of whether live lessons (in real time) or video lessons (at your leisure), data in Table 2 indicate that both are more effective for online learning, most of the respondents thought that live learning is more insightful for online learning, while video lessons may be useful when there is a lack of understanding of the lesson. Yet, the students with the fewest comments were of the opinion that whether any of the mode of learning is beneficial or not is dependent on the students themselves.

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A majority of respondents agreed and strongly agreed that training on the usage of online platforms and other applications does assist in effective online learning, as studying online requires an understanding of platforms and apps. Some felt that the numerous applications used do make it easier to attend lessons, while a few commented that it was a hassle. Respondents also thought that online discussions were more comfortable than face-to-face conversations, as they allow them sufficient time to think and respond, while making it easier to communicate with lecturers throughout the semester. With this, students are able to attend classes instantly, regardless of where they are, provided that they have access to an Internet connection or phone. Yet, some students "Strongly disagreed" with the notion that online learning is a barrier for those students who do not have access to an Internet connection or phone. For these students, they would need to find an alternative means of internet access, like a food and beverage outlet that provides internet connection, in which will also raise the financial burden on them.

In addition, respondents felt that professors play the same role in online learning as they do in face-to-face learning. The speakers are sufficiently competent, regardless of whether the students are learning online or in person. Nonetheless, some students have strongly opposing viewpoints about face-to-face learning, whether students can easily understand, if queries or concerns are clearly addressed.

Some respondents believe that the usage of technology improves the creativity of lecturers in online learning. It has also made online learning more creative, since the incorporation of technology in online learning provides students with a new dimension of learning no matter where they are located. On the other hand, students who "Strongly disagreed" indicated that it was difficult and that they had to learn to utilise technology in order to attend. Some respondents also stated that the online learning environment meets their needs as a student.

When asked if their needs as a student are addressed in the online learning environment, respondents' replies differ substantially. Table 2 shows that the majority of respondents (more than 43%) responded "Agree," while 149 of them (more than 28%) said "Strongly agree." Following that are 96 of the respondents (18.46%) who "Disagree," and 47 of the respondents (9.04%) who "strongly disagree."

Table 2 shows that most students (43.85%) agreed, while a small number of them (9.04%) "Strongly disagreed", regarding a suitable environment for online learning. You can study from anywhere, regardless of where you are, like at coffee shops, restaurants, bedrooms, bathrooms, or any other location. Additionally, some students "Strongly disagreed" with the notion that the learning method in the online classroom system lacks discipline, while causing students to be fragmented from their peers.

Approximately 70% of the students thought that online learning is engaging and fun for them (Refer to Table 2). Online learning enables students to prepare for life in the modern world, while being more competent with systems and technology, and constantly being a challenge to their abilities. Many students "Strongly disagreed" with the notion that studying online is a difficult and demanding effort, while some feel that familiarising with the learning system is more essential, whether learning through Zoom or the classroom.

In terms of the benefits of online learning over face-to-face learning, Table 2 shows that about 60% agree with the assertion. This means that students from all over the world

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could study online more easily and conveniently. Additionally, they “Strongly disagreed” with the notion that if the traditional learning environment is eliminated, this will cause students to have less face-to-face interactions, while the connection between them will fade. Moreover, about 60% of students believed that online learning may indeed replace face-to-face learning to accommodate the current circumstances around the world. Online learning should replace classroom learning to enable students to still gain an education, instead of a complete shutdown of the higher institutions. In addition, these students “Strongly disagreed” with the idea that when the situation returned to normal, they should return to conventional teaching in the classrooms, rather than still employing online learning, or discontinuing conventional teaching in favour of online learning.

When asked if they thought a sense of belonging to an online learning community helps them interact with other students, Table 2 shows that the majority of them agreed, with 233 respondents (more than 44%) who answered "Agree", and 137 respondents (26.35%) who answered "Strongly agree". Students are able to connect and interact while studying online, just as they would in a classroom. Additionally, the students “Strongly disagreed” with the viewpoint that some individuals are not keen in expressing themselves, as they are unable to communicate in private, while the entire discourse of every online learner is heard by everyone in the group.

On whether an online learning environment promotes enough sharing and caring among students, the responses differ substantially. Table 2 shows that more than 42% of the respondents answered "Agree", with 161 respondents (30%) saying they "Strongly agree". Information or knowledge can be easily shared through online learning, such as lecture notes. Nevertheless, students who ""Strongly disagreed"" indicated that it was difficult to locate documentation, then print the materials, in order to prepare for online lectures.

Table 2 also shows that more than 47% "Agreed" and more than 30% "Strongly agreed" that the online learning environment is a safe place where one can confidently complete group work with other students. The LINE system allows for group collaboration, where students are able to easily find information and distribute to each other quickly and conveniently. Due to this, these students ""Strongly disagreed"" that there is a lack of exchanging ideas or opinions.

In regards to receiving timely feedback on assessment, Table 2 shows that more than half of the respondents agreed with the question, with 271 respondents answering "Agree", which is more than 52%, and 137 respondents answering "Strongly agree" with 26.35%. The majority of students (52.12%) agreed and the least “Strongly disagreed” (7.31%). Students should be evaluated adequately when learning online, and the students strongly disagreed with the notion that they should be given a fair assessment. People who do not attend school should be underestimated in comparison to those who do, as it is similar to taking a class where you are merely signed in.

Most students "Agreed" (45.96%) and few "Strongly disagreed" (9.04%), with the majority of students assuming that they are already involved and engaged in learning, such as making a report or giving homework in each course as indicated in Table 2. Some students "Strongly disagreed" with the opinion that learning requires cooperation between students and teachers, while must also enquire about the students' comprehension as well.

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The majority of students (46.54%) agreed and the least of them (6.73%) disagreed that the enrolment course should be useful for their daily lives, while the students "Strongly disagreed" that some subjects should not even be offered because they are far away and have nothing to do with life as indicated in Table 2.

In terms of student satisfaction with remote learning replacing face-to-face learning, Table 2 shows that the majority responded as satisfied (61%), 21% were dissatisfied, and 17.9% were neither satisfied nor dissatisfied. The majority believed that remote learning would be significantly beneficial in the COVID-19 situation, in order for the teaching to continue. For the dissatisfied study, there was an opinion that there should be a more organised method of teaching. But neither of them believes are of the opinion that we should wait for the situation to improve before resuming teaching in the system.

When asked "how much do they think they learned" compared to previous semesters as a result of the COVID-19 pandemic, Table 2 shows that more than 42% of respondents chose "Learned much better" More than 22% of 117 respondents chose "Learned as well." The lowest percentage is 3.30%, with just 17 respondents who chose "Definitely did not learn as much," and the highest percentage is 15.60%, with 81 respondents who chose "Somewhat did not learn as well" with the statement. When there is no teaching in the classroom, students spend more time reading. For students who study more diligently, there is an opinion that "if you do not understand, you should do further research on your own to understand better". For students who study moderately, there is an opinion that "I just want to learn to pass", hence they concentrate progressively when studying in class. Nevertheless, for students who do not study well, there is an opinion that "even when I study in the classroom, I still do not understand. So, it is much more difficult to understand when learning online".

When questioned about the effectiveness of using direct one-on-one contact with the instructor as a means of learning remotely due to the COVID-19 pandemic, Table 3 indicates that 310 respondents (59.61%), which were more than half of them replied "Effective." Then, 133 respondents with more than 25% responded "Extremely effective," whereas just 19 of them (3.65%) answered "Extremely not effective" with the statement. The majority of students (59.61%) stated that their interaction with the teacher was effective in understanding the lesson. Opinionated students evaluated gaining knowledge directly from the instructor as "Extremely effective" (25.57%). Students with ineffective opinions (11.15%) claimed it was not as convenient as one-on-one tutoring, while students with "Extremely ineffective" opinions (3.65%) said some students were reluctant to contact or ask questions.

Table 3: Rate of Effectiveness of methods used to learn remotely due to the COVID-19 pandemic

	Extremely not effective	**Not effective**	**Effective**	**Extremely effective**
Contact with lecturers	3.65	11.15	59.61	25.57
Zoom	4.23	11.34	52.30	32.11
Pre-recorded Lectures	3.65	12.69	46.73	36.92
Digital reading materials, digital textbooks, and textbook websites	3.26	11.15	50.57	35.00
Discussion Boards	3.07	15.00	53.07	28.84

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The majority of students, as indicated on Table 3, said that online learning through Zoom and others was found to be effective (52.30%), since this was one of the methods to study well online. Opinionated students who felt "Extremely effective" (32.11%) stated that the system is good, but students whose opinions were not effective (11.34%) stated that contact is also a barrier in terms of signal transmission from teacher to learner. Those students who thought that it was "Extremely ineffective" (4.23%) claimed that it was too cumbersome and inconvenient, and that certain equipment was out of date, making learning difficult.

4.1. Pre-recorded Lectures

Table 3 shows that pre-recording lectures was deemed to be "Effective" (46.73%) by the majority of students, since it made them feel more comfortable when studying. Opinionated students felt it to be "Extremely effective" (36.92%) and stated that 'wherever you are, you can go to school' and 'you can open it wherever and whenever you want'. Students whose opinions were "Ineffective" (12.69%) said that certain speakers were not as engaged in teaching as they should be, while students whose opinions were "Extremely ineffective" (3.65%) believed that when they had questions or concerns with the speaker, they could not find an answer at that moment.

4.2. Digital Reading Materials, Digital Textbooks, And Textbook Websites

The majority of students believe that the textbooks can be obtained in textbooks and websites online, and that it is effective (50.57%) to be able to locate it on their own, without waiting for secondary distribution. Students with strong opinions felt extremely effective (35.00%), since documents can be loaded independently, as they are already in the university's online system. On the other hand, students who felt ineffective (11.15%) thought it was difficult to find documents, whilst students who felt extremely ineffective (3.26%) thought that documents in some subjects, if there are a lot of details, would burden the students with more expense to print the document themselves, rather than the university being the service provider (refer to Table 3).

4.3. Discussion Boards

Table 3 shows that the majority of students thought discussion boards were effective (53.07%) because they were a method for students to express themselves. There was increased interaction between students and speakers, according to students with extremely effective opinions (28.84%). Nevertheless, students who were ineffective (15.00%) stated that partisan threads are limited to specific groups, while students who felt extremely ineffective (3.07%) said that they are not keen on sharing personal opinions, replying to other students as they should, answering questions, or making inquiries, as they are cautious about expressing themselves in public. Students should embrace and engage with facilities offered by the university, whether it is lecture materials and other teaching and learning support. At the same time, the university should reduce some of the expenses that students pay to the university for student documents throughout each semester.

5. Recommendations

Along with online teaching and learning, more and more online delivery modes, such as Cisco Webex or Zoom, are discovered and applied in the online classroom to

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increase efficiency and effectiveness. These online tools are believed to facilitate accessible communication between lecturers and students by providing learning opportunities and establishing a new online private space for teaching and learning (Aljawareh, 2020). However, it is still necessary to consider those students who are dealing with low Internet connection, because regardless of how amazing the digital platforms appear to be, if the Internet connection is unreliable, the platforms will not operate seamlessly in achieving the desired results. Despite this, it should be noted that the use of technological tools does enhance student online learning experiences and has a positive impact on the education industry, even though it requires a greater understanding on how to utilise it properly (Sia & Adamu, 2020).

When it comes to other social network platforms, particularly WhatsApp, it does aid in creating an online conducive private space for learners to engage and have a sense of belonging among their peers and lecturers. This is when WhatsApp or other social-media platforms step in to fill the gaps left by students' absence from university and limited social interactions. On the other hand, individual responsiveness and accountability must still be addressed when creating a space for a group discussion or any other group-related task. Ultimately, it is possible to conclude that in order to fully implement the approach of online teaching and learning in higher education, there is still a need for continuous evaluation and proper re-strategizing, beginning with lecturers and ending with student feedback, as well as appropriate necessary skills with the use of technological tools.

The instructor is the individual, who imparts the knowledge and details of the subjects taught. The instructor must have knowledge and expertise in each discipline or subject. The instructor will serve as a guide for students to recognise their potential throughout their studies and self-development. If the instructor lacks knowledge and ability, the students will struggle. The student is the one who receives the content and course process of the teacher's knowledge. As a result, students must be prepared in all aspects, while having knowledge and access to basic technological systems, as well as the capability to seek information on their own.

The integrity of the content that is being taught is essential for increasing teaching effectiveness and satisfying the university's objectives. Each course should have a distinct plan, and there is unmistakable content integrity. The content is concise and easy to understand, and it is constantly updated, while allowing students to search for links at all times. The media utilised in online learning is important for both teaching and learning. Teaching materials must be comprehensive and clear, in order for students to understand the content completely and accurately. Using videos, still images, and moving visuals may capture students' attention. The font size in academic articles must be apparent, other than colour and image clarity, as well as the accuracy of academic information, etc.

Communication (communication systems) is crucial in online teaching and learning. To make online teaching and learning successful, it must use effective two-way communication methods, which is the teaching and learning systems that will be effective through Zoom, Webex, Google Classroom, Microsoft Teams, and One Drive, through which teachers and students can communicate providing answers to questions, and determine the total number of students present. As these are prevalent applications, they facilitate communication with convenience and agility, as well as clarity of image and sound.

Monitoring and Evaluation (Evaluate) can help teachers to monitor and evaluate their own teaching, by reviewing the results prior to preparing for each course and after

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teaching. Teachers are able to understand and observe the behaviour of the learners, while reflecting the students' opinions and understanding of the effectiveness of the study, including measuring the learners' knowledge, etc.

According to the findings of the study, the following obstacles to the implementation of the study were discovered. These obstacles should be studies and avenue of solutions identified for quality teaching and learning. Firstly, teachers tend to use PowerPoint throughout the course of the lecture during teaching hours. Teachers must also have access to documents and information apart from depending on Powerpoint based content for effective and quality teaching. Next, students are less adept at using technology, unable to adapt to online teaching, and possess inadequate knowledge of computer programmes. Gradually, overtime these obstacles were overcome and the hybrid and blended model of teaching and learning has taken over. In this context, relevant stakeholders have to consider proper online teaching management, whereby university personnel to advise and support technology for both faculty and students. In the context of lack of readiness of the learners, a scarcity of learning tools, and a lack of internet signal for certain students who reside in remote areas, which causes a lack of communication is an educational agenda that Ministry of Education should step on to ensure technology inclusivity among students in internet coverage and non-internet coverage areas.

The university should have personnel to monitor student performance in teaching and learning, which is another way for providing student assistance. Future studies should compare students' success in online learning to inquire and obtain feedback from speakers or instructors on whether or not the objectives were met. In addition, there should be data and statistics on students attending the lectures to determine whether or not students are active in online learning, as compared to studying directly at the university. The findings of this study should be broadened and examined further, or applied to experiment with teaching and learning at universities, in order to determine the cause, rationale, and suggestions for improvement in the future research study.

6. Conclusion

As a result of this study's findings, it can be concluded that most undergraduate students prefer hybrid/blended education over remote/online education. This demonstrates that, while recognising that online learning was no longer an option, students are willing to adapt to the present pandemic situation by combining online learning with the conventional face-to-face learning approach in the physical classroom. Nevertheless, the undergraduates expressed less satisfaction with remote/online learning, since there is no sufficient training and time given to both educators and learners in preparation for a more effective remote/online learning experience. Despite this, further improvement may be done in the future to increase students' level of satisfaction and perception toward online learning post COVID-19 pandemic.

Ethics Approval and Consent to Participate

The researchers used the research ethics that conform to individual rights to take part in a research. All procedures performed in this study involving human participants were conducted in accordance with the ethical standards whereby informed consent of participants is obtained before involvement in the research.

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Conflict of Interests

The authors reported no conflicts of interest for this work and declare that there is no potential conflict of interest with respect to the research, authorship, or publication of this article.

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