Teaching and Learning (T&L) Among University Students During the Movement Control Order (MCO)

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ABSTRACT

Both academic institutions and schools were required to conduct online learning during the Movement Control Order (MCO) period. This study aims to identify Universiti Teknologi Mara (UiTM) Terengganu's branch students' perceptions of teaching and learning (T&L) during MCO. The preferred technology framework for T&L during the MCO period is also identified in this report. Furthermore, this study identifies the factors that influenced the choice of said application. The respondents were 256 UiTM Terengganu students from eight specialisations. Data were gathered through the use of online questionnaires administered through Google Forms. According to the findings, students had a generally positive attitude toward the online learning process but were less satisfied with its effectiveness. In terms of application selection, the university's teaching and learning platform, the U-Future system, comes in first, followed by Google Classroom, Telegram, and WhatsApp. This study also discussed the strategies for improving the effectiveness of technology utilisation to optimise e-learning.

Keywords: *Movement Control Order (MCO), Teaching and Learning (T&L), Technology Application.*

INTRODUCTION

Following the Covid-19 virus outbreak in 2020, Malaysia implemented a nationwide movement control order (MCO). The order, which went into effect on 18 March 2020, barred Malaysians from freely engaging in outdoor activities as they had previously. Furthermore, a slew of Standard Operating Procedures (SOP) has been put in place to prevent the virus from spreading. Human-to-human interaction was restricted due to the dangers posed by the virus. This involves proximity, skin contact, and a large group meeting in a small space. Among those concerned were those involved in the teaching and learning process (T&L). Online T&L replaced face-to-face T&L. Following the spread of the Covid-19 pandemic, the use of online networking technologies has become a global phenomenon. While the use of technology in the T&L process is not recent, its use became more widespread following the outbreak. Face-to-face T&L in all educational institutions was disrupted as a result of the spread of Covid-19. The Malaysian Ministry of Education (MOE) has directed T&L sessions to be held online to prevent the spread of viruses among students and to ensure that no student falls behind in their studies (Juhary, 2020).

The Ministry of Higher Education (MoHE) has taken similar steps, declaring that all T&L activities in universities would be performed online from 18th March to 31st December 2020. As a result, Universiti Teknologi MARA (UiTM) was forced to close and students are now required to study from home. Thus, technology-based T&L is completely used to assist in the delivery of lectures and information to students. The learning management system (LMS) is one of the primary mechanisms for lecturers to supervise electronic learning (e-learning) or multimedia learning (m-learning) (Rubin et al., 2013; Chee et al., 2010). This digital learning enables its users to plan, execute, and evaluate learning activities either directly or indirectly (Aziah & Marzuki, 2005). To be sure, the use of online media in education helps students achieve excellence by facilitating interactions between students and lecturers in the classroom. However, ineffective use of media and technological applications impedes a smooth learning process (Manhun, 2012). Fadhilah and Hussain (2016), in their studies of 385 students, discovered that students at Universiti Utara Malaysia (UUM) rarely use LMS technology. Lecturers, on the other hand, made extensive use of LMS technology to upload notes and documents, which reduced their workload in terms of printing and distributing information to students. As a consequence, students do not recognise the value of LMS in strengthening their learning performance.

Collaborative learning is a type of group work that is required and is always included in continuous assessment scores. The goal of group projects is to help students develop important skills so that they can work well with their co-workers once they start working. Collaborative learning has the potential to boost students' productivity and performance. Group assignments are completed in person prior to the implementation of the MCO. Group discussions are conducted better face-to-face, according to research by Dr Hasnah Hussiin of Universiti Malaysia Pahang (UMP), so information can be processed and responded to directly, preventing confusion (UMP News, 2020). Owing to the Covid-19 outbreak, however, students are no longer permitted to engage with one another face-to-face. As a result, online group discussions have become the norm these days, with discussions taking place via applications such as WhatsApp, Telegram, Google Meet, and WebEx, among others. At times, the use of this platform causes students to misinterpret the information provided. Interaction via WhatsApp, for example, may cause students to have different interpretations of the same message.

This study is expected to describe the preparation and problems when the teaching and learning approach (T&L) based on communication technology is implemented during the period of MCO. Things to know are: (1) How are the students' acceptance of collaborative learning using the medium of technology during the MCO period?; (2) What are the technology applications that students choose for T&L use during the MCO period?; and (3) What are the factors that influence the selection of applications by the students during the MCO period? Consequently, this study aims to determine the perceptions of Universiti Teknologi Mara (UiTM) Terengganu branch students toward collaborative learning using technology during the MCO period. This research also defined the preferred application for learning purposes during the MCO. Aside from that, this study established the factors that influenced the selection of the said applications.

LITERATURE REVIEW

Many local researchers have been drawn to studies on the use of technology as a teaching and learning medium, which have yielded a variety of outcomes. The use of appropriate technology greatly aids students in comprehending the teaching and learning process, resulting in excellence comparable to classroom face-to-face learning. Aside from the Public Higher Education Institutions (IPTA), over 500 private higher education institutions are facing a similar situation in which students must master the technology applications chosen by their instructors (Fahmeeda & Long, 2015; Ng et al., 2015; Sakina Sofia, 2013). Tze et al. (2014) conducted a more systematic analysis on the use of technology applications in T&L, discovering that the use of social media such as Facebook facilitates students' engagement and involvement in class, as well as fosters good contact between students and lecturers. However, with the rapid development of technology and the potential for the creation of more

promising applications, Facebook could become obsolete in the future. Furthermore, Supyan et al. (2012) found that students possess computer skills and are prepared to face e-learning in education in their study of 91 students from two public universities.

Although students are attempting to adapt to the use of technology, not all have been successful. Since the advent of online teaching and learning, the number of students who choose to defer or quit their studies has risen dramatically. Apart from that, since the outbreak of the Covid-19 pandemic, anxiety has become one of the most common mental health issues among Malaysians, and students are no exception (Mohd Izwan, 2020). Anxiety disorder is a mental condition in which a person experiences extreme anxiety that interferes with their everyday life. This anxiety in students is exacerbated by their fears of being left behind by their friends while studying online at home on their own. A survey of 982 students conducted during the MCO period discovered that 20.4%, 6.6%, and 2.8% of students suffer from anxiety about online learning at the minimum to moderate, moderately severe, and extremely severe levels, respectively (Sundarasen et al, 2020). The same results were obtained in a study by Baloran et al. (2020), in which the majority of the students in his study experienced anxiety as a result of the pandemic. Furthermore, Irawan et al. (2020) reported that students are stressed as a result of online workload. This is since students must quickly master the use of newly learned online media. Things escalate when they are unable to return to their respective institution, forcing them to be confined at home with no physical activity and no contact with their friends, resulting in psychological effects such as anxiety and fear.

After well almost nine months, both schoolchildren and students at higher education institutions are still barred from attending classes. Students are concerned about whether full online learning can be as effective as face-to-face learning. Several studies have been conducted to assess students' readiness to participate in e-learning in higher education. According to a study conducted by Zoraini Wati et al. (2009), only 64% of Open University Malaysia (OUM) students who attended open and distance learning in 31 learning centres across Malaysia are prepared to engage in e-learning. Furthermore, Issham et al. (2016) discovered that a high percentage of students have a moderate level of readiness to engage in e-learning in a survey of 551 students from 11 public universities. Despite their desire to learn using e-learning, the majority of students found it incompatible. Another driving factor, according to them, is students' moderate knowledge of the advantages and disadvantages of using technology in learning.

Based on the literature analysis, studies by past researchers focused more on online teaching and learning among university students but none focused on a specific period as during the MCO. Therefore, this study is to fill the study gap (gap). This study aims to analyze students' perceptions of teaching and learning (T&L) among university students during the Movement Control Order (MCO).

METHODOLOGY

This is a quantitative study that was carried out at the UiTM Terengganu Branch Dungun Campus. This study employs non-probability sampling, also known as purposive sampling. Purposive sampling is a sampling method that allows the researcher to determine and select the number of samples for a study, (Etikan et. al, 2016). This study defines the population as students who take economics subjects from September 2020 until March 2021 semester, which comprises 450 students. Out of the total, 256 students were used as the study sample. Online questionnaires (google form) were used to collect data for this study. This study adapted a questionnaire from Khalid et. al. (2015) and the questions were modified according to the context of the study. The questionnaire is divided into four sections: Section A: Respondent Profile; Section B: Students' assessments of technology-based learning during the MCO; Section C: Selections of teaching and learning medium during the MCO; and Section D: Driving factors in the selection of said applications in learning during the MCO. Descriptive analysis was used to analyse study data.

DATA ANALYSIS AND DISCUSSIONS

Profile of Respondents

Table 1 summarises the study's findings concerning the demographics of the respondents. This study includes 256 participants, including 211 (82.4%) male students and 45 (17.6%) female students. Malays constitute 99.2% of the respondents. In terms of semester of study, the majority of respondents (58.6%) are in semester 3, followed by semester 1 (29.3%), semester 5 (8.6%), semester 4 (1.6%), semester 2 (1.2%), and 0.4% in semesters 6 and 7.

Table 1: Profile of Respondents

	Percentage (%)
Gender:	
Male	82.4
Female	17.6
Ethnicity:	
Malay	99.2
Others	0.8
Semesters of Study:	
Semester 1	29.3
Semester 2	1.2
Semester 3	58.6
Semester 4	1.6
Semester 5	8.6
Semester 6	0.4
Semester 7 and above	0.4

Students Assessment of Group Learning Using Technology throughout the MCO.

Table 2 displays students' evaluations of group learning using technology across the MCO. This section contains eight questions. The majority of the students (42.6%) are "neutral", 30.5% "agree", and 6.7% "strongly agree" with the statement "*Learning using communication technology improves my learning throughout the MCO.*" However, 15.7% of the respondents "disagree", and the remaining 4.5% "strongly disagree". This demonstrates that students believe that the use of technology improves their learning outcomes during the MCO. For the statement *"I felt that I am a member of the learning group that I have joined throughout the MCO",* the majority of students (41.7%) are "neutral", followed by 39.9% who "agree", and 14.3% who "strongly agree". The remaining 2.2% and 1.8% of respondents "strongly disagree" and "disagree" with the statement respectively. This finding demonstrated that students felt like a part of the learning group in which they participated during the MCO. On the statement *"I actively exchange ideas with my learning group mates throughout the MCO,* the majority of the respondents (40.8%) "agree" with the statement, while the remainder 38.1% are "neutral", 12.6% "strongly agree", 7.6% "disagree", and 2% strongly disagree with the statement. This finding clearly showed that students actively exchange ideas with their group mates throughout the online learning session during the MCO. For the statement *"through discussion with my learning group mates, I was able to develop new skills throughout the MCO",* the majority of the respondents (41.3%) "agree" with the statement, while the remainder 34.5% are "neutral", 14.3% "strongly agree", 8.5% disagree, 1.3% "strongly disagree" with the statement. This research demonstrated that the online discussion process with group mates assisted them in developing new skills throughout the MCO.

Table 2: Students Assessment of Group Learning Using Technology throughout the MCO.

No	Statement	Frequency / Percentage				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Learning using communication technology improves my learning throughout the MCO	4.5%	15.7%	42.6%	30.5%	6.7%
2.	I felt that I am a member of the learning group that I joined throughout the MCO	2.2%	1.8%	41.7%	39.9%	14.3%
3.	I actively exchange ideas with my learning group mates throughout the MCO.	0.9%	7.6%	38.1%	40.8%	12.6%
4.	Through discussion with friends in my learning group, I was able to develop new skills throughout the MCO	1.3%	8.5%	34.5%	41.3%	14.3%
5.	Through collaboration with friends in my learning group, I was able to improve my problem-solving skills throughout the MCO	1.8%	4.9%	34.1%	46.6%	12.6%
6.	The collaborative learning process between members in my learning group are active throughout the MCO	1.8%	5.8%	39.5%	42.2%	10.8%
7.	Collaborative group learning is time consuming throughout the MCO	3.1%	6.6%	40.8%	20.6%	13.5%
8.	Overall, I am satisfied with the learning experience in my group throughout the MCO	4.0%	7.6%	39.5%	39.0%	9.9%

The majority of the respondents (46.6%) agree with the statement "*through collaboration with friends in my learning group, I was able to improve my problem-solving skills,*" while the remaining 34.1% are "neutral", 12.6% "strongly agree", 4.9% "disagree", and 1.8% "strongly disagree". This finding indicated that the majority of students acquired problem-solving skills through an online collaborative process with their group mates throughout the MCO. For the following statement, "*the collaborative learning process between my learning group mates is active throughout the MCO,*" the majority of respondents (42.2%) "agree", while the remaining 39.5% are "neutral", 10.8% "strongly agree", 5.8% "disagree", and 1.8% "strongly disagree". This demonstrated that the majority of students are more actively engaged in online discussions with their peers during the MCO. For the statement "*Collaborative group learning are time-consuming throughout the MCO,*" the majority (40.8%) are "neutral", 20.6% "agree", 13.5% "strongly agree", 16.6% "disagree", and 3.1% "strongly disagree" with the statement. This finding indicated that students believe online discussion during the MCO is time-consuming. This section concluded with the statement "*I am generally satisfied with the learning experience in my group throughout the MCO*" which finds that majority of the respondents (39.5) % are "neutral" with the statement, while 39.0% "agree", 9.9% "strongly agree", 7.6% "disagree", and 4.0% "strongly disagree". This demonstrated that respondents were pleased with their online group learning during the MCO.

Figure 1 shows that 76% of respondents believe virtual teaching is less pleasant and less effective than face-to-face classes. Meanwhile, Figure 2 shows that more than 84% of respondents disagree that virtual teaching and learning are appropriate for all university courses of study. Furthermore, Figure 3 depicts the finding for the posed questions, which is "*factors that inhibit students' participation during online T%L.*" Their inability to afford an unlimited internet subscription, poor internet connectivity and the use of outdated smartphone devices are among the major impediments that cause them to disagree with the implementation of online learning. The majority of respondents (56.3%) stated that they have problems with a poor internet connection, while 24.5% stated other reasons, 13.9% cannot afford to subscribe to unlimited internet, and 5.6% are using outdated smartphone devices.
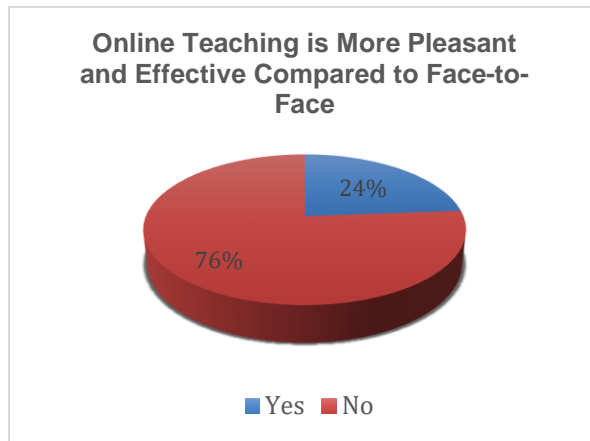
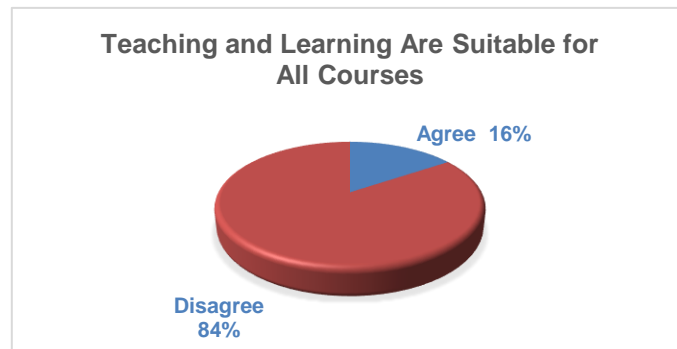**Figure 1: In comparison with face-to-face, online learning is pleasant and effective.**

Figure 2: Teaching and Learning are Appropriate for All Courses
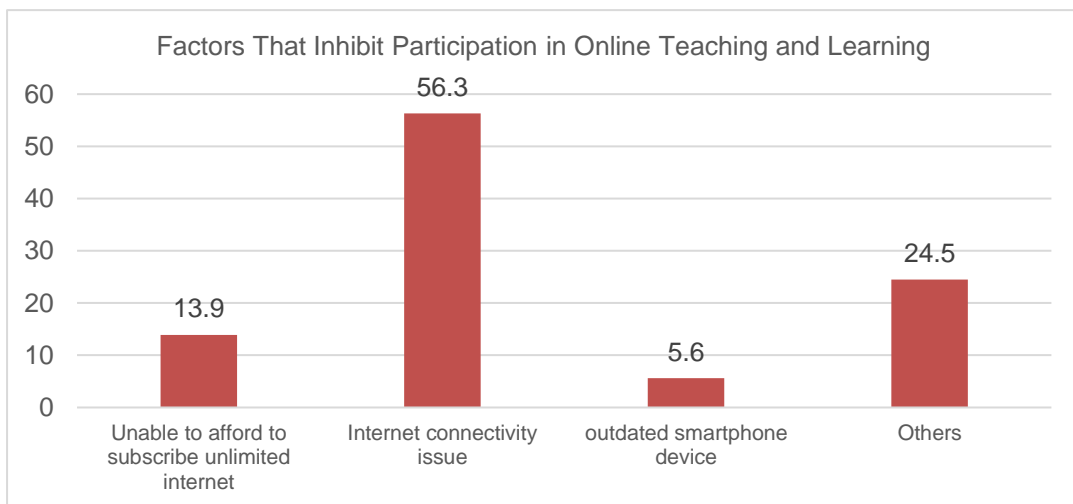

Figure 3: Factors That Inhibit Participation in Online Teaching and Learning.

The Choice of the Teaching and Learning Medium During the MCO Period

Figure 4 depicts the study findings regarding students' preferred applications for T&L during the MCO period. Students' preferred applications include the university teaching and learning portal (UFUTURE), Google Classroom, Zoom, Telegram, and WhatsApp. Other applications such as E-mail, Facebook, WebEx, YouTube, Kaizala, Microsoft Team, Padlet, My lab, and others are rarely used by students. According to the findings of this study, 94.6% of respondents use the university teaching and learning portal (UFUTURE), 82.6% use Google Classroom, and 81.9% use WhatsApp as their primary online learning medium.
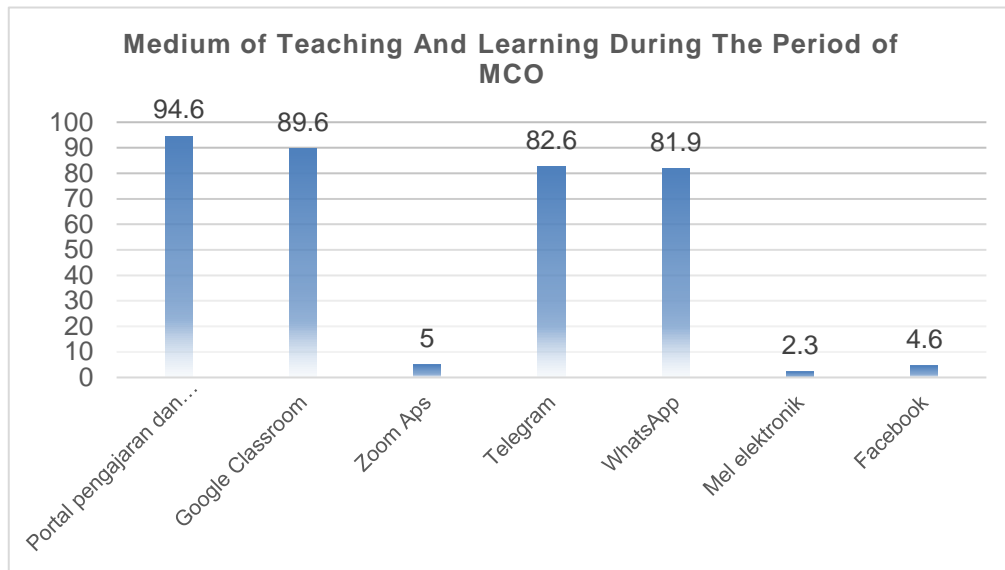

Figure 4: During the MCO Period, the Medium of Teaching and Learning

Table 3 summarises the findings regarding the factor that influenced the use of technology in learning across the MCO. The majority (44.8%) of respondents agreed that the device/software they use allows them to communicate socially. Furthermore, 39.9% and 8.9% of respondents are "neutral" and "strongly agree" with the statement, respectively. The remaining 5.4% and 1.3% say they "disagree" and "strongly disagree. A majority of 44.4% of respondents are neutral about the statement "I'm able to communicate my feelings and emotions using the device/software", while 28.7% "agree", 16.1% "disagree", 7.2% "disagree", and 3.6% "strongly disagree".

Table 3: Factors that Affect Technology Selection in Learning throughout the MCO Period

No.	Statement	Frequency / Percentage				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	The device/ software gives me space to communicate socially	1.3%	5.4%	39.9%	44.8%	8.5%
2.	I am able to communicate my feelings and emotion using the device/software	3.6%	16.1%	44.4%	28.7%	7.2%
3.	The device/software provides me space to share materials/information confidentiality/personally	1.3%	9.9%	41.7%	36.3%	10.8%
4.	I am pleased to communicate with friends using this device/software	2.7%	7.6%	37.2%	41.7%	10.8%

5.	My friends use motivating language when communicating through this device/software	1.8%	6.3%	47.1%	37.7%	7.2%
6.	The device/software are reliable (e.g., it ensures that the message is relayed to the specified individual)	1.3%	4.9%	35.0%	51.6%	7.2%
7.	The device/software allows me to foster good relationship with my friends.	2.2%	5.8%	36.3%	45.3%	10.3%
8.	The device/software allows a sense of compassion between me and my friends	3.1%	5.8%	34.1%	46.6%	0.3%
9.	The length of the message relayed through the device/software does not deter me from communicating with friends	1.3%	7.2%	37.7%	45.3%	8.5%

Following the statement "The device/software allows me to share materials/information confidentially/personally", 41.7% responded "neutral", 36.3% "agree", 10.8% "strongly agree", 9.9% "disagree", and 1.3% "strongly disagree". A 41.7% majority agreed with the statement "I am pleased to be able to communicate with friends using this device/software," while 37.2% are "neutral", 10.8% "strongly agree", 7.8% "disagree", and 2.7% "strongly disagree". For the statement "My friends use motivating language when communicating through this device/software", 47.1% majority are "neutral", while 37.7% of the respondent agree, 7.2% strongly agree, 6.3% disagree and the remaining 1.8% strongly disagree. Meanwhile for the statement "The device/software are reliable (e.g., it ensures that the message is relayed to the specified individual)", 51.6% of the respondent agreed with the statement, 35.0% are neutral, 7.2% strongly agree, while the remainder 4.9% and 1.3% disagree and strongly disagree, respectively.

Next, for the findings on the statement "The device/software allows me to foster a good relationship with my friends", 45.3% of the respondents "agree", 36.3% are "neutral", 10.3% "strongly agree", 5.8% "disagree", while the remaining 2.2% "strongly disagree". Additionally, for the statement "The device/software allows a sense of compassion between me and my friends", 46.6% of the respondents "agree" with the statement, 34.1% are "neutral", 5.8% "disagree", 3.1% "disagree" and 0.3% "strongly agree". The section concluded with the statement "The length of the message relayed through the device/software does not deter me from communicating with friends" which shows that 45.3% of the respondents "agree" with the statement, while 37.7% are "neutral", 8.5% "strongly agree", 7.2% "disagree", and the remaining 1.3% "strongly disagree".

RECOMMENDATION

Due to financial constraints, many students from low-income families (B40) may have difficulty accessing technological applications. Students from the B40 family should be given more assistance, such as internet access, a laptop, and other course-related equipment, to give them an equal opportunity to study well and efficiently, and thus be better prepared for online learning. It is also worth noting that not all UiTM courses are compatible with online learning. Courses such as arts and skill-based courses must be taught face-to-face, which allows for more improvement research. Effective learning, on the other hand, should be based on empathy and interpersonal aspects, rather than solely on the sophistication of the technology at hand. One way or another, lecturers and UiTM students alike must devise strategies to continually adapt to the new normal, which necessitates online T&L implementations. These are the necessary challenges and sacrifices that both parties must make to ensure our nation's future prosperity.

Improved learning for online T&L should be prioritised by lecturers. First, the lecturer should conduct a formative assessment prior to teaching the unit to determine how well students understand the subject. As you progress through the unit, keep an eye on student work and see which areas they are comfortable in and which are more challenging for them. The lecturer should wrap up the unit with a summative evaluation to see how much students have gained. We can identify and address areas of difficulty before they pose major issues during online T&L by assessing their learning in a variety of ways and throughout the lesson. Second, the lecturer should provide opportunities for hands-on practice during online T&L. Most students retain more information if they learn by doing rather than listening to an online lecture. Allow students to apply what they have learned by giving them hands-on practice activities in groups.

Instead of simply explaining a math concept, assign students to work on a group project that allows them to apply the concept in a real-world setting. Thirdly, the lecture should pique the students' interest by drawing on prior knowledge. Keeping students' attention would be difficult if they are not interested in a lesson, and it would become a major issue for online T&L. Before you start teaching, pique their interest and activate their prior knowledge to increase their attention span. Begin each unit with an anticipation guide in which you ask students to consider the unit's contents.

CONCLUSION

To summarise, the study's findings show that students have triumphed over online T&L, as many students have no problem with online learning as the use of technology applications is required throughout the MCO. However, because there are still issues with the technology application used, most students expect the T&L process to be face-to-face. This is because the new system is increasingly unreliable and interrupted during peak hours and in bad weather. According to the study's results, most students are willing to consider online learning but believe it as being less successful due to some limitations. Students face a variety of constraints, including restricted internet connectivity, insecure application structures, and the inability to afford unrestricted internet access. Most students at UiTM preferred the university's teaching and learning platform (UFUTURE) but they frequently encountered problems while using the systems. As a result, the systems must be upgraded to ensure the system's smooth operation. Furthermore, a compromise between students and lecturers is critical in ensuring the maximum efficacy of online learning, following student complaints about lecturers who refuse to try to understand the problems students face when using technological applications. It is suggested that the research should be extended to include a larger students population in the future.

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