

Online Learning Conditions during The COVID-19 Pandemic among University Students

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ABSTRACT

The Covid-19 pandemic has led to unexpected changes in all Institut Pengajian Tinggi Awam (IPTA) operations. During the lockdown, there was a sudden shift in the educational system from face-to-face instruction to online instruction. Studies have shown that progress in online learning and teaching is considerably more successful when all students have access to a conducive, healthy learning environment. Thus, the present study seeks to determine the level of online learning conditions among IPTA students in Malaysia during the pandemic. A total of 410 students aged 18 to 32 from 20 IPTAs were randomly selected to participate in the study by completing a series of survey forms. Several factors, including insufficient access to appropriate ICT devices, constant internet disruptions, and a lack of enthusiasm or motivation to study online, contributed to the study's findings, which indicated a need to improve online learning conditions among university students during the COVID-19 pandemic. Consequently, students who received appropriate information from their educators and perceived the enjoyment and usefulness of the learning sessions will have greater advantages in navigating the learning process during the COVID-19 pandemic than students who did not share these feelings or receive the same treatment.

Keywords: MCO, online learning condition, learning environment, public university

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1. INTRODUCTION

This study aimed to determine the level of online learning conditions during the COVID-19 pandemic among IPTA students. In line with technological development, e-learning technology has provided better-quality training, teaching, and learning (Masrom, 2007). Consequently, the field of education is seen as reasonably evolving, leading to a refined future in education by taking into consideration the new vision it brings regarding learning skills and knowledge trends (Hussin, 2018). Subsequently, the COVID-19 pandemic prompted the Ministry of Higher Education (MoHE) to implement nationwide online learning. This prompted institutions to revise course content, delivery, and assessment approaches while maintaining the initial course objectives to sustain education for students nationwide.

The Malaysian Qualifications Agency (MQA) also guided higher education institutions as they revised their content to suit the pandemic (Mohamad Nasri et al., 2020). However, this news received mixed reactions as issues such as Internet availability and demographic differences arose. Filius et al. (2019) and Bao (2020) argue that embarking on online education requires careful planning and substantial investment. Therefore, the shifting phase of educational progress has brought uncertainty and distress to students. Access to a high-quality online learning environment facilitates significant information transfer between teachers and students regarding knowledge and instructional materials (Stosic & Stosic, 2015). Having only distance-learning means will not suffice, and the conditions of online learning for students must be conducive to both encouraging and inhibiting quality learning.

2. LITERATURE REVIEW

The Malaysian government took actions such as implementing a nationwide Movement Control Order (MCO) from 18 March 2020 onwards to control the virus outbreak and mitigate the pandemic. The Ministry of Higher Education (MoHE) of Malaysia decided to pause all face-to-face lectures and urged all higher education institutions to transition to online learning to control the pandemic. As an alternative to the traditional face-to-face educational approach, most local universities have implemented online learning for their students. This prompted the institutions to revise their course content, delivery, and assessment approaches while maintaining the initial course objectives to sustain education for students nationwide.

Online learning via electronic devices with internet access became an alternative learning method due to the spread of this disease, which led to the closure of face-to-face classes. Online learning, or distance learning, is defined by Moore and Kearsley (1996) as a learning environment in which students, along with lecturers or teachers, are separated by distance and occasionally by time. Online education is a process in which students and teachers interact and communicate about course content through Internet-based learning technologies (Curran, 2008). Berge (2007) reported that technology is here to stay and has become an essential means of addressing educational and instructional needs and of developing society's level of knowledge.

Effective online learning requires a variety of approaches because technology use, content design, assessment, and practices differ from conventional approaches (Fayer, 2017). Online learning has been implemented in both synchronous and asynchronous environments. These learning methods have brought freedom in learning as they connect teachers anywhere they want (Singh & Thurman, 2019). Synchronous and asynchronous are the two modes of online learning that depend on the timing of interaction (Finkelstein, 2006; Abdullah, 2011). Synchronous online learning involves interaction between lecturers and students during class via video conferencing or chatrooms, whereas asynchronous online learning provides opportunities for lecturers and students to interact before and after online classes via email or discussion threads (Selvanathan et al., 2020). According to Stoetzel and Shedrow (2020), online learning is a method of instruction delivered through the Internet, so teachers and students do not need to be physically present or meet face-to-face during the learning process.

Online learning provides benefits for independent learning and for developing new skills as part of lifelong learning (Dhawan, 2020). Online learning is often referred to by multiple terms, such as web-based learning, online learning, or

instruction via computer assistance. Berteau (2009) believes that some experts hold that online learning is a form of teaching that integrates multiple technologies, while others argue that Internet applications facilitate the substitution of distance education as a means of effective and rapid communication. Some researchers agree that online learning provides flexibility in the learning process and students' motivation (Tesar, 2020). In addition, universities introduced online portals with available courses and embarked on efforts to enhance e-learning worldwide (Chen, 2010; Yengin et al., 2011; Shahzad et al., 2020).

A study by Woo and Kimmick (2020) showed that discussions about adopting online learning have been time-consuming and difficult, as has the attitude towards online learning. Murphy (2020) inferred that the online education system is new but will evolve to be as effective as traditional methods. In addition, Hussin (2018) states that online learning, self-direction, and flexible learning, regardless of time and place, are enabled through accessible online platforms and tools. Multiple obstacles have been raised regarding online learning. Ertmer (1999) recognised barriers comprising first- and second-order barriers. Hardware, access, and technical support are classified as first-order barriers, while second-order barriers often relate to pedagogy, beliefs, or personal preferences. Another scholar, Pelgrum (2001), identified two classifications for online learning. The first category refers to material barriers, which are related to the lack of Information and Communication Technologies (ICT) resources, and the second category refers to non-material barriers, which are related to teachers' knowledge and skills.

To combat the pandemic, online learning seems to be the most effective way to continue learning. However, the learning process was a struggle for some students due to poor online learning conditions and limited interaction. In Sabah, Malaysia, 52% of students do not have proper access to the Internet due to a lack of infrastructure ('52 Peratus', 2020). In addition, limited Internet access makes it difficult for students to communicate with their lecturers, interact with their friends, and access laboratories, thereby affecting their studies (Selvanathan et al., 2020). Many students and educators are inexperienced in utilising technology for online education during the pandemic (Doyumğaç et al., 2020). Therefore, inadequate information and communication technology competency hindered online education during the pandemic. This study is based on the Technology Acceptance Model (TAM) (Davis, 1989). This would allow the study to assess the extent of online learning among IPTA students during the pandemic.

3. METHODOLOGY

This study used a quantitative approach. The design of this research comprises a correlational study using a survey method, in which the online learning condition is treated as a variable. Responses from 427 IPTA students aged 18 to 25 were collected using a simple random sampling technique. The sample of participants was drawn from a population of 584,576 students (Statistik Pendidikan Tinggi, 2020) across 20 IPTA in Malaysia, as the required sample size, according to the Krejcie and Morgan (1970) table, is 384. The questionnaire was distributed online to the participants.

The survey instrument was based on the constructs validated by Davis (1989) and adapted to the context of this study. The survey included perceived usefulness, perceived ease of use, and behavioural intention, comprising 12 questions on a 5-point Likert Scale. A pretest study was conducted, and Cronbach's alpha was .931 for the online learning condition, indicating good reliability. After data cleaning and screening, 410 data points were usable. SPSS version 26 was used to analyse the data. The reliability of the actual test was also recorded. A descriptive analysis was then performed to determine the level of the variables.

4. FINDINGS AND DISCUSSION

Table 1: Level of Online learning Condition (n=410)

Level	Percent	Mean	SD
Online Learning Condition		2.256	.580
Low (1.00 - 2.33)	6.8		
Moderate (2.34 - 3.66)	56.6		
High (3.67 - 5.00)	31.0		

According to Table 1, the level of online learning conditions during the COVID-19 pandemic among IPTA students was low, as the mean was 2.256 (SD = .580). It can be deduced that, despite the introduction of online education in the Malaysian Education Blueprint of 2013-2025, Malaysian IPTA students' online learning conditions remain low, as they continue to face difficulties adapting to the shift. This is in accordance with the research of Filius et al. (2019) and Bao (2020), whose outcomes suggest that entering online education requires significant planning and proper investment. This would further enhance the online learning experience for students. This is in line with a study conducted by Efriana (2021), which may be due to the shortages faced by educators in terms of understanding the subject material to deliver it online, their inability to use technology as they were unprepared for online education, followed by the limitations faced by students in terms of inadequate device availability, low enthusiasm or motivation towards embarking education online, and shortage in terms of internet access, showing a need for improvement in this condition.

In addition, the TAM used determines the acceptance and adaptability of online learning conditions for IPTA students. The findings suggest that ease of use and usefulness significantly affect technology use behaviour, which in turn affects motivation for learning and communication effectiveness. Similar to the study by Salloum et al. (2019), which examined e-learning acceptance, perceived ease of use is affected by computer playfulness in e-learning. The study also showed that information quality, perceived enjoyment, and accessibility significantly affect perceived ease of use and perceived usefulness.

5. CONCLUSION

The COVID-19 pandemic has brought drastic and unexpected changes to educational progress. As a nation that prioritises students' educational development as a dire need for national improvement, it is important to continually understand the greater good this shift could bring. This shift should be well utilised so it can be incorporated into the education system once COVID-19 is no longer a concern. Both educators' and students' viewpoints should be considered to improve the educational standards of Malaysian students. In conclusion, this study shows a low level of online learning conditions among IPTA students during the COVID-19 pandemic. However, at the data collection stage, the implications of online learning were still emerging for many students nationwide. Subsequently, it is important to track the progress of online learning conditions and students' responses to them as soon as possible. At the same time, the Technology Acceptance Model 1 has greatly accommodated this research's need to obtain feedback by intervening to understand the level of online learning in terms of perceived usefulness and perceived ease of use, subsequent behavioural intentions, and actual usage of IPTA students. Moreover, ways to make online learning useful for students should be emphasised to help improve course productivity. In addition, online learning has been found to be easy for most students; therefore, better outcomes should be considered for incorporating it into the education system post-COVID-19 pandemic as well.

Future studies should explore other stressors that affect online learning conditions, such as mental health, technology

literacy, financial status, and family background. These stressors may also play an important role in students' learning conditions nationwide, thus underscoring the need for an in-depth study on this matter. In addition, an in-depth study to capture educators' perspectives should be conducted to understand their understanding of online learning conditions during the COVID-19 pandemic. This subsequently helps improve the educational progress of both parties. Moreover, studies to improve students' online learning conditions need to be undertaken, as the nation is still under movement control orders and education is still conducted online. Future research is encouraged to provide a comprehensive understanding of online learning conditions, as the current study is limited to descriptive analysis.

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