The Impact of COVID-19 on Academic Performance of Bachelor's Degree Students

Kesan COVID-19 terhadap Prestasi Akademik Pelajar Ijazah Sarjana Muda

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ABSTRACT

The outbreak of the COVID-19 pandemic that started in Wuhan City, China, in 2020 has left the academic sector in Malaysia a total chaos. The shift from face-to-face class to full implementation of online distance learning (ODL) has brought significant changes in students' academic performance. This research aims to determine the impact of COVID-19 lockdown on students' academic performance. The study was conducted in UiTM Perlis Branch, and 54 bachelor's degree students from four faculties were invited to participate in this research. Descriptive Statistics were presented as counts and percentages to summarize the collected data. To measure the effect of COVID-19 lockdown on students' academic performance, 5-likert scale was used. The findings revealed that the COVID-19 pandemic had varying degrees of impact on students' academic performance. From an online perspective, almost all students in various faculties and semesters experienced moderate difficulties while participating in online learning sessions, whereas nearly everyone experienced some difficulty in completing online practical lessons. The main challenge or issue for most students in online learning is internet connectivity and lack of concentration and focus in class. Online education could be improved by making it more interactive, allowing students and lecturers to interact, providing concise information, increasing internet speed, and providing students with recorded lectures. This study would mainly benefit students because they can devise ways to improve their learning. On the other hand, this study would also benefit the university because it can help them raise its name as an admirable university. When they learned the problems faced by students, they would find solutions to help their students with their studies. When students' academic performance is good, the level of education in the university could be outstanding.

Keywords: online distance learning (ODL), COVID-19, academic performance, online learning, lockdown

INTRODUCTION

The world is now shocked by a life-threatening virus called COVID-19. Coronavirus illness or COVID-19 is an irresistible, perilous and deadly malady caused by a recently found coronavirus. Based on a study by Balkhair (2020), the world has seen the development of a few illness episodes and scourges, and COVID-19 is the most recent expansion to this developing list of unwelcome infections. The World Health Organization (WHO) declared COVID-19, which started in Wuhan City, China, as a public health emergency of international concern on 30 January 2020 and as a

pandemic on 11 March 2020. The World Health Organization (WHO) revealed that most people infected by COVID-19 would experience mild to direct respiratory sickness and recoup without requiring special medicines. In other cases, older people and those with fundamental restorative issues, like cardiovascular infection, diabetes, constant respiratory illness, and cancer, are more likely to create serious illnesses. As a result, COVID-19 has become one of the most noticeably awful pandemics in human history, with a stunning number of more than 1.4 million infections in 177 countries and more than 85 000 deaths globally as of 9 April 2020 (Balkhair, 2020).

Malaysia is one of the countries that have been affected by the nearness of the ongoing worldwide pandemic of COVID-19. Starting March 18 2020, the Movement Control Order (MCO) 1 was implemented in the nation to mitigate the spread of COVID-19 through social distancing. When the MCO was announced by Tan Sri Dato' Haji Muhyiddin Yassin, Prime Minister of Malaysia at that time, all Malaysians were forbidden to go out except for some urgent issues. As a result, many sectors in Malaysia were affected, and some had to be closed.

One of the sectors that are affected by COVID-19 is the academic or education sector. The biggest obstacle for students, especially university students, is that they cannot continue their studies in face-to-face mode because of the strict standard operating procedure (SOP) imposed. Therefore, a new learning method, online distance learning (ODL), was introduced to them. With this new environment, some students might face difficulties while dealing with ODL. In addition, it might also give a significant change in their academic performance.

The difficulties of ODL were highlighted in some local newspapers. For example, Lee (2020) disclosed that a Sabah student named Veveonah Mosibin had to climb a tree for better internet access to sit for a college exam. Lim (2020) wrote that some students may need the inspiration and are less intrigued to go through with lessons conducted online due to their need of self-discipline or since they favor face-to-face learning. Besides, the president of University of Malaya Association of New Youth (UMANY), Yap Wen Qing, talked with the Malay Mail daily newspaper that some students stated that their battle over the e-learning mode was due to stress, as lecturers tend to provide more assignments through e-learning mode. A recent study on the impact of the COVID-19 pandemic on academic performance by Mahdy (2020) also shows that the MCO had affected the academic performance of most veterinary medical students by 96.7% with varying degrees.

Many factors can contribute to students' academic performance. The fact that students live in rural or urban areas also contributes to academic performance. Students living in urban or city areas might not have much problems than those living in rural areas. Students who live in this area are surrounded by many facilities to help them work on their assignments. They have bookstores, computer stores, and printing shops nearby. But for students who live in rural areas or the countryside, it will be hard for them because the possibilities of having these kinds of shops nearby is low. In addition, Wan Jaafar and Maat, (2020) revealed that rural students' mathematics achievement is moderately influenced by their motivation for mathematics.

Another factor is the internet connection. Slow internet connections or restricted access from homes in rural areas can contribute to students falling behind academically, according to a new report from Michigan State University's Quello Center (Bauer et al., 2020). Furthermore, Kuppusamy and Musa (2021) found that self-efficacy is most important attitude factor that influences students' performance. The findings give educators, schools, and institutions a better understanding of how to improve students' self-efficacy in the classroom by developing better teaching and learning methods.

Alawamleh et al. (2020) revealed that students prefer classroom classes over online classes due to a variety of issues they encounter when taking online classes, including lack of motivation, lack of understanding of the material, a decrease in communication between students and lecturers, and a sense of isolation brought on online classes. Furthermore, Tan (2021) found that during the MCO period, students' motivation and learning performance suffered due to using online learning methods. There is a lack of learning infrastructure as well as social support from lecturers and classmates.

Besides, Chung et al. (2020) studied on the online learning readiness among university students in Malaysia. It was found that a majority of students preferred pre-recorded lectures uploaded to Google Classroom and YouTube for online learning. The difficulty in understanding the subject content is the biggest challenge for diploma students, while internet connectivity is the biggest challenge for degree students. Governments, telecommunication companies, and universities should invest in developing internet infrastructure across the country in the coming years, as online learning will become the new norm. In order to ensure that lessons are delivered more effectively, universities should provide additional training to enhance academics' online teaching skills.

Azlan et al. (2020) found that pre-recorded lectures and watching videos of practical sessions and answering short questions were deemed beneficial by more than 60% of the students. On the other hand, students found it difficult to focus due to distractions, lack of engagement, and mental stress. The problem was exacerbated by technical issues such as poor internet connectivity and limited data plans.

Based on the descriptive analysis in Al-Kumaim et al. (2021) collected from 486 students from different universities in Malaysia, it was revealed that various challenges were faced when using IT platform applications for online learning. The following is a list of these challenges; 1) overwhelmed by work and information from instructors via online learning platforms, 2) technical issues relating to students' inability to afford online learning support, 3) stress and 4) anxiety-related personal health issues.

UiTM Perlis Branch, Malaysia is no exception to these problems. There has been no study conducted regarding the problems related to online distance learning in the university. Therefore, this study aims to analyze the impact of COVID-19 on students' academic performance.

METHODOLOGY

Data Collection

The population in this study is bachelor's degree students of UiTM Perlis Branch. A single-stage cluster sampling technique was used to select the samples of students. There are seven faculties in this campus which are Faculty of Business and Management (FBM), Faculty of Sports Science and Recreation (FSR), Faculty of Plantation and Agrotechnology (FPA), Faculty of Applied Sciences (FSG), Faculty of Computer and Mathematical Sciences (FSKM), Faculty of Accountancy (FP) and Faculty of Architecture, Planning and Surveying (FSPU). To determine the target respondents, a lucky draw process was conducted. FP was not included in the process as it only offers diploma programs. The steps in the lucky draw process were to print out numbers in the range of one to six and to choose only four numbers randomly. The faculties chosen were FBM, FSR, FSG and FSKM. All the bachelor's degree students in the chosen faculties were asked to answer the questionnaires.

Questionnaire Design

 The questionnaires were distributed online via Google Form handed out through messages in the data collection procedure. After that, respondents were informed about the objective of the study and the information gathering process. They were guaranteed about the confidentiality of the data, and no motivating force was given to them for participating in this study. Respondents needed to answer the questions according to the instructions provided. The questionnaire was modified from Mahdy (2020) which is consisted of two parts which were part A and part B. In part A, respondents needed to fill in their gender, age, residential area, faculty, semester, and internet connection information. In part B, there were a few questions about online study, the impact of COVID-19 on their academic performance, and their comments or opinions on improving online studies during the pandemic.

FINDINGS AND DISCUSSIONS

Demographic Characteristics of Respondents

Of the participants from 16 bachelor's degree programs who were invited to complete the online survey of "The Impact of COVID-19 towards Students' Academic Performance in UiTM Perlis Branch", only students from 13 bachelor's degree programs could participate. This might be because the participants were not aware of the existence of the survey since the recruitment period was during their semester break until a few weeks of their new semester. Beginning with 62 participants, data were removed for 6 participants because they had answered the questions incorrectly and for another 2 participants because they preferred not to disclose certain crucial information for the research. This makes the total number of students who completed the survey were 54 participants.

Table 1: Sociodemographic characteristics of students

Variables		Frequency	Percentage (%)
Gender	Male	13	24.1
	Female	41	75.9
Age	19-21	10	18.1
	22-24	42	77.78
	25-27	2	3.70
Residential Area	Rural Area	29	53.7
	Urban	25	46.3
Faculty	FBM	7	13
	FSR	6	11.1
	FSG	16	29.6
	FSKM	25	46.3
Semester	Semester 2	2	3.7
	Semester 3	13	24.1
	Semester 4	14	25.9
	Semester 5	20	37
	Semester 6 and above	5	9.3
Internet Connection	Good	16	29.6
	Moderate	38	70.4
	Bad	0	0

Table 1 shows the sociodemographic of the students. Of the 54 students, 13 (24.1%) are male, and 41 (75.9%) are female. About 18.1% of the participants aged 19 - 21 years, 77.78% were 22 – 24 years, and 3.70% were 25 - 27 years. The majority of the students were in semester 5 (37.0%, n = 20), and most of them were from the Faculty of Applied Sciences, FSG (29.6%, n = 16). More than half of the participants (53.7%, n = 29) were residents in rural areas, while others in the city (46.3%, n = 25). About 70.4% of the participants had a moderate or tolerable internet connection, 29.6% had a good internet connection, and none of them had a bad internet connection in their places.

The Effect of COVID-19 Pandemic on Students' Academic Performance

Table 2 shows the effect of COVID-19 on students' study and their difficulties during the pandemic, whether in online learning sessions or practical lessons. Most of the students believed that COVID-19 did affect their study to varying degrees. Many of the students in FBM (42.9%), FSR (50%), and FSG (43.8%) were considerably affected, while most the students in FSKM (36.0%) were moderately affected. By focusing on the semester, every semester (n = 20) was considerably affected by this pandemic, followed by some of them (n = 18) were moderately affected, few (n = 9) were greatly affected, and the least participants (n = 7) responded to slightly affected. From an online perspective, almost all participants in different faculties (n = 21) and semesters (n = 21) felt moderate difficulties while having online learning sessions (**Table 3**). In contrast, when having online practical lessons,

nearly everybody felt somewhat difficult getting through it (**Table 4**).

Table 2: Effect of COVID-19 pandemic on students' study

Variables	Greatly affected	Considerably affected	Moderately affected	Slightly affected	Not affected
Faculty					
FBM	0 (0%)	3 (42.9%)	2 (28.6%)	2 (28.6%)	0 (0%)
FSR	0 (0%)	3 (50%)	1 (16.7%)	2 (33.3%)	0 (0%)
FSG	2 (12.5%)	7 (43.8%)	6 (37.5%)	1 (6.3%)	0 (0%)
FSKM	7 (28.0%)	7 (28.0%)	9 (36.0%)	2 (8.0%)	0 (0%)
Semester					
Semester 2	1 (50.0%)	0 (0%)	1 (50%)	0 (0%)	0 (0%)
Semester 3	1 (7.7%)	5 (38.5)	6 (46.2%)	1 (7.7%)	0 (0%)
Semester 4	4 (28.6%)	3 (21.4%)	5 (35.7%)	2 (14.3%)	0 (0%)
Semester 5	3 (15.0%)	9 (45.0%)	6 (30.0%)	2 (10.0%)	0 (0%)
Semester 6 and above	0 (0%)	3 (60.0%)	0 (0%)	2 (40.0%)	0 (0%)

Table 3: Difficulties of online learning during the COVID-19 pandemic

Variables	Difficult	Somewhat difficult	Moderate	Somewhat easy	Easy
Faculty					
FBM	0 (0%)	1 (14.3%)	3 (42.9%)	3 (42.9%)	0 (0%)
FSR	0 (0%)	2 (33.3%)	3 (50.0%)	1 (16.7%)	0 (0%)
FSG	2 (12.5%)	5 (31.3%)	6 (37.5%)	2 (12.5%)	1 (6.3%)
FSKM	5 (20.0%)	10 (40.0%)	9 (36.0%)	1 (4.0%)	0 (0%)
Semester					
Semester 2	1 (50.0%)	0 (0%)	1 (50%)	0 (0%)	0 (0%)
Semester 3	0 (0%)	4 (30.8%)	6 (46.2%)	2 (15.4%)	1 (7.7%)
Semester 4	3 (21.4%)	2 (14.3%)	7 (50.0%)	2 (14.3%)	0 (0%)
Semester 5	3 (15.0%)	9 (45.0%)	7 (35.0%)	1 (5.0%)	0 (0%)
Semester 6 and above	0 (0%)	3 (60.0%)	0 (0%)	2 (40.0%)	0 (0%)

Table 4: Difficulties of practical lessons during the COVID-19 pandemic

Variables	Difficult	Somewhat difficult	Moderate	Somewhat easy	Easy
Faculty					
FBM	0 (0%)	4 (57.1%)	3 (42.9%)	0 (0%)	0 (0%)
FSR	0 (0%)	3 (50.0%)	3 (50.0%)	0 (0%)	0 (0%)
FSG	4 (25.0%)	6 (37.5%)	4 (25.0%)	2 (12.5%)	0 (0%)
FSKM	4 (16.0%)	10 (40.0%)	10 (40.0%)	1 (4.0%)	0 (0%)
Semester					
Semester 2	1 (50.0%)	0 (0%)	1 (50%)	0 (0%)	0 (0%)
Semester 3	2 (15.4%)	4 (30.8%)	6 (46.2%)	1 (7.7%)	0 (0%)
Semester 4	2 (14.3%)	6 (42.9%)	6 (42.9%)	0 (0%)	0 (0%)
Semester 5	3 (15.0%)	10 (50.0%)	7 (35.0%)	0 (0%)	0 (0%)
Semester 6 and above	0 (0%)	3 (60.0%)	0 (0%)	2 (40.0%)	0 (0%)

Online Education During COVID-19 Pandemic Lockdown

The data from Figure 1 shows that students used several electronic devices in online learning during the COVID-19 pandemic lockdown. The most used device was the smartphone, followed by laptop and printer, while the least used device was PC and followed by the tablet.
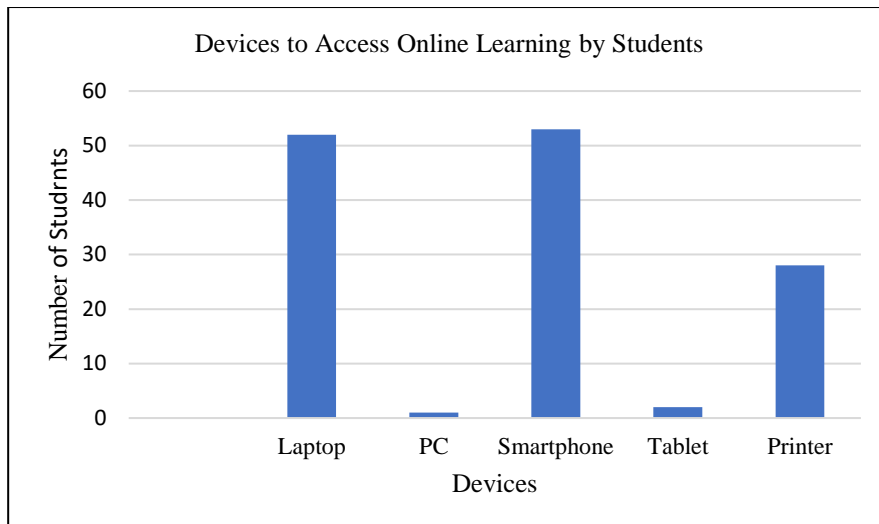
Devices to Access Online Learning by Students

(bar chart: Number of Students by Devices)

Laptop ≈ 52, PC ≈ 1, Smartphone ≈ 53, Tablet ≈ 2, Printer ≈ 28

Figure 1: Devices to access online learning by students

Varying online learning tools had been used throughout the semester to access online classes and materials provided by lecturers, as shown in Figure 2. The distribution of these online learning tools is as follows; Google Meet had the highest preference, followed by WhatsApp and Telegram. Zoom, Webex, and Microsoft Teams were moderately used. While Google Classroom, Skype, and WeChat were not popular tools to be used among them.
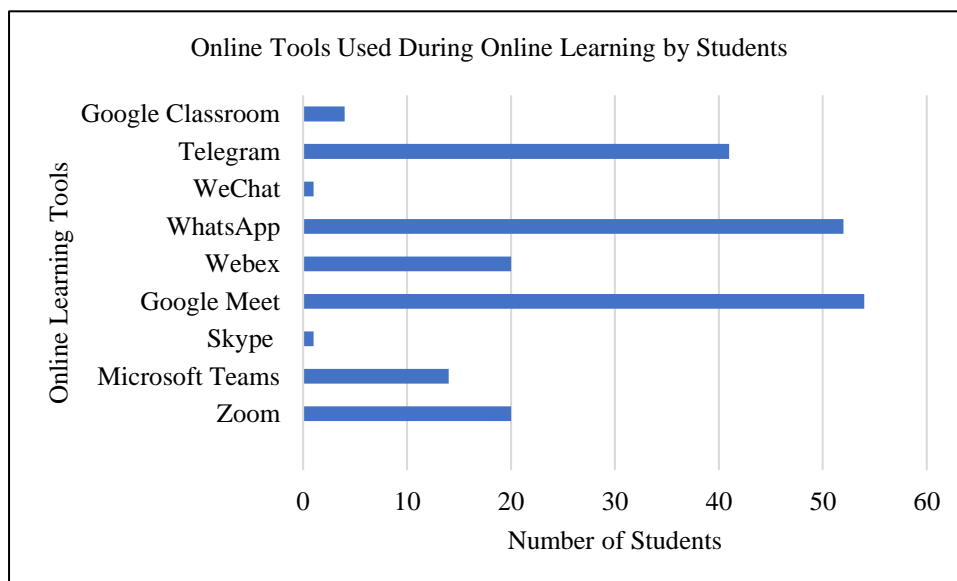
Online Tools Used During Online Learning by Students

(horizontal bar chart: Number of Students by Online Learning Tools)

Google Classroom ≈ 4, Telegram ≈ 41, WeChat ≈ 1, WhatsApp ≈ 52, Webex ≈ 20, Google Meet ≈ 54, Skype ≈ 1, Microsoft Teams ≈ 14, Zoom ≈ 20

Figure 2: Online tools used during online learning by students.

Common Problems Associated with Online Learning During COVID-19 Lockdown

The students' responses regarding the common problems related to online learning can be summarized as follows:

- Poor internet connection
- Less concentration and focus during class
- Uncomfortable environment
- Burden of family responsibilities
- Understanding of the subjects or specific topics
- Less interactive due to lack of contact between students and lecturer

- Lack of motivation to study and miscommunication between lecturers, students, and the university itself
- Miscommunication between group members in a group project due to inability to have face-to-face conversation
- Work and information overload received from instructors through online learning platforms
- Issues with learning devices, such as laptops hanging problem

Recommendations to Improve Online Learning During COVID-19 Lockdown

The students' responses regarding the recommendations to improve online learning can be summarized as follows:

- Make a recording of the lecture for students who are unable to connect to the internet
- Improve the internet speed
- The university should create single online learning with easy access to study materials
- Because students are more focused in earlier session, the class should last an hour. Students should take a 10 to 20-minute break between classes if they want to complete a two-hour class.
- Improve the interaction between students and lecturers
- Improve the teaching method to encourage students to concentrate and entice them to study online
- Allow students more time to submit assessments, considering their internet problems and technical difficulties
- Students are given advance notice of their assignments and tests and complete instruction to manage their time better
- Give time for the students to write down notes during the learning session
- Provide electronic devices for students and lecturers to access the internet, such as computers and tablets
- Provide solutions for students if there are any problems with the subjects

CONCLUSION AND RECOMMENDATIONS

The current study found that COVID-19 pandemic lockdown had varying degrees of impact on most students' academic performance. The internet connection speed and less concentration and focus during class are the most significant challenges students face when pursuing online education. Online education could be improved by making it more interactive between students and lecturers, provide clear information, improve internet speed, give extra time in submitting assessments, and provide recorded lectures for students to learn during flexible time. While investigating the impact of COVID-19 on students' academic performance at UiTM Perlis Branch, there are several knowledge gaps and limitations. In future research, it is suggested that more time is spent on collecting data and that more variables are added in order to use regression analysis to investigate the factors that affect students' academic performance.

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