

Students Perceptive towards Online Learning during Covid-19 Pandemic: A Case Study in MiCoST

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Abstract—The spread of the COVID-19 pandemic has sent shockwaves across the globe as it brings many changes in life including the world of education. This pandemic has had a significant impact on the country's educational landscape. Due to the risk of COVID-19, it is crucial to replace face-to-face classes with online classes. Online learning has become something that is no stranger to us since the COVID-19 pandemic hit Malaysia. However, it has raised huge challenges for the higher education sector. Therefore, this study aimed to explore student's perspectives on the implementation of online learning during the COVID-19 pandemic. A study design using a questionnaire form via Google Form was conducted on 100 college students at Melaka International College of Science and Technology (MiCoST). The method consists of conducting a literature review, constructing a questionnaire, and distributing a survey. The findings further revealed that the COVID-19 pandemic had the greatest impact on the quality of the learning experience. The findings of the study highlight several challenges of online learning raised by most students. The challenges are insufficient and unstable Internet connection, an uncondusive learning environment, inadequate opportunity to discuss with lecturers, lack of communication with classmates, lack of devices, practical courses in online learning are difficult, and require a lot of time and intensive work. By conducting this study, it will help to understand any issues related to online learning and provide effective solutions.

Index Terms— COVID-19 pandemic, online learning, face-to-face (F2F) learning, education challenges.

I. INTRODUCTION

In January 2020, the world was shaken by the declaration of COVID-19 as a new coronavirus disease outbreak by the World Health Organization (WHO) as this disease rapidly spread outside China, infecting and claiming millions of lives. Countries including Malaysia have taken up decisive actions to mitigate the spread of the virus of COVID-19 [1]. COVID-19 pandemic has changed the world and prompted countries to enforce lockdown, including education systems [2]. This pandemic has suddenly transformed the landscape of learning and teaching around the world. It has been reported that there are currently more than 1.2 billion children in 186 countries affected by school closures due to this pandemic [3]. Even after the lockdowns end, online classes will remain a major feature of teaching and learning in the future. To ensure the continuity of education despite the lockdown, higher education institutions have sought to use technology and offer online classes and learning experiences as a substitute for in-class time [2]. COVID-19 unexpectedly and suddenly forced institutions and education to take part in such change [4]. Students around the world have been taken by surprise, transforming education process entirely. The pandemic of COVID-19 caused several

schools and colleges to remain temporarily closed. Face-to-face education has ended by numerous schools, colleges, and universities. Many countries worldwide have implemented different methods and approaches to continue the education process [5]. Government and educational agencies are trying to find alternatives ways to manage this tough situation.

In Malaysia, the closure of schools and institutions of higher learning in line with the Movement Control Order (MCO) has presented new challenges to educators and students when online learning methods are implemented to replace face-to-face learning. It is because social gatherings in educational institutions are considered an opportunity for the virus to spread. Everything needs to be done virtually and remotely. With this current situation, it is still unclear when students can return to campus to carry out the learning process face to face. Therefore, online learning is the best option available to ensure that pandemic do not spread, as it guarantees social distancing.

There are many platforms to conduct online learning, but to implement them is not as easy as we thought because there are constraints or challenges of online learning that need to be face [6]. As online learning has become a necessity for education around the globe during COVID 19-pandemic, therefore this research aim to explore student's challenges on online learning during the Covid-19 pandemic. To achieve our aim, this paper is organized as the following; Section II discusses the related work on online learning, Section III presents the methodology, Section IV discusses the result and analysis, Section IV presents the discussion, and finally Section V conclude and summarize future directions of this work.

II. RELATED WORK

A. What is Online Learning?

Technology have made distance education easier. Most of the terms such as online learning, open learning, web-based learning, e-learning, computer-mediated learning, blended learning, and m-learning have in common the ability to use a computer connected to a network which offers the possibility to learn from anywhere, anytime, in any rhythm with any medium [15]. Online learning defined as learning experiences in synchronous or asynchronous environments using various electronic devices such as computers, laptops, smartphones, etc. with the present of Internet [6]. While [7] defined online learning as accessing learning experiences through the use of certain technology. The various software or applications can be

used such as Google Classroom, Google Meet, Zoom, and Microsoft Teams to take online courses. In these environments, students can be anywhere to learn and interact with their lecturers and other students [8]. [8] stated online learning could be a platform that makes the process of education more student-centered, creative, and flexible. The use of online learning and of digital media for teaching and learning has grown rapidly in just a few years [9].

B. Differences between online learning and face-to-face (F2F) learning

Both environments have different advantages and problems. Students have many years of training in how to behave in a class. The social rules, class procedures, and expectations for online learning are less clear [16]. Successful students in F2F learning must actively listen and participate in class, take good notes, study and complete assessment. While successful online students must be motivated, disciplined, self-directed, and good at time management. Besides, discussion in the online environment may offer more opportunity for students to think about, research and even draft their discussion posts and responses. In this situation, extroverted and introverted students stand on equal footing which may result in more even, open, and honest discussions [17].

In F2F classes, students can be getting information and feedback about their learning and performance whenever they attend class. In contrast with online classes which students depend more on the facilitation, assignment clarification, and feedback provided by their lecturers. Furthermore, in online learning, majority of communication between student-to-lecturer and student-to-student involves non-verbal asynchronous correspondence mostly in the form of email, instant messages, video and audio messages, discussion forums, and reflections. Different from F2F classes which involves more in-person dialogue and conversations. When every aspect of learning in a class takes place in the online environment, it is very easy to fill lots of multi-dimensional content and learning exercises throughout the class [17].

C. Advantages of Online Learning

Online learning is cost-effective and easily accessible especially when delivering curriculum to students in rural and remote areas [10]. Online learning offers versatility in participation, accessibility and convenience. Besides, the ease of online learning enables direct communication between lecturers and students in the class [9]. [11] added students can participate in chat rooms in real time or asynchronously by posting to newsletters or forums. Hence, students are given the easier route of communication with either the lecturer or other students in the class. Shy students appear to be more interested in online learning than face-to-face learning [12].

D. Challenges of Online Learning

While online learning is having many benefits, problems and challenges need to be brought to light. According to [13], students who do not have reliable internet access and/or technology are struggle to participate in this online learning. It also reported that one of the biggest issues children in Malaysia have with online learning is poor Internet access or the lack of devices in a household [14]. During online classes, a poor link can lead to disturbances that can influences the performance or

efficiency of delivery of the course [5]. This issues become worst especially for students with minimal Internet access in rural areas, or those who are unable to afford costly subscription of network plans [15]. Study showed online learning is known as an individualizing process and it has limit some interactions between students and others [15]. Students also complaint they felt isolated from their lecturers, from the content of the subject, and from their classmates. The lack of face-to-face interaction with the lecturer, response time and absence of traditional classroom socialization were among some other issues during online learning.

Even though are number of technologies available for online learning, however sometimes they create a lot of difficulties. The difficulties such as downloading errors, issues with installation, login problems, problems with audio and video, and etc. [6]. [6] also stated personal attention is also a huge issue during the online learning process. Two-way interaction between students and lecturers sometimes get difficult to be implement. Besides, the financial limitations is one of issues raised during online learning. It also reported that students not even being able to buy a communication device or a laptop [18]. [19] stated that students experienced lack of motivation, difficult to concentrate on their studies and Internet issues regards to difficulties faced due to the change from face-to-face learning to online learning. Online learning has increased the pressures and workload faced by lecturers who struggled to balance their responsibilities on teaching, study, and work [20].

III. METHODOLOGY

This study uses a quantitative research study which was conducted online due to the MCO, which resulted everyone, have to stay at home; instead of distributing physical copies to the students inside the campus. This survey was designed primarily to explore student's perspective on online learning during the Covid-19 pandemic. The survey also intent to identify the challenges that students faced during their online classes. Three phases involved in this study as depicted in Fig. 1.

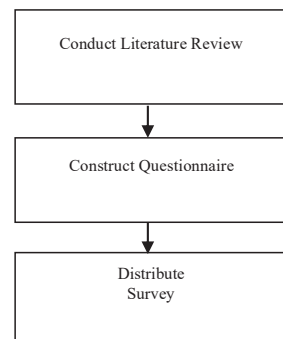


Fig. 1. Phases of conducting survey

Fig. 1 depicts the phases of conducting this survey which are 1) Conduct literature review, 2) Construct questionnaire, and 3) Distribute survey. The description of each phases will described below.

A. Conduct Literature Review

In order to construct questionnaire, this study was conducted by reviewing the existing research on online learning and the issue of COVID-19 pandemic [5], [13], [18], and [22]. It including references from journals, newspapers, proceedings, and also books. Articles considered for this review were published from year 2016 to 2021.

B. Construct Questionnaire

The questionnaire designed using the Google Form and the primary language was English. The questionnaire was divided into three section. Section 1 contains demographic information of the students such as email, gender, age, semester, and faculty. Section 2 was to identify respondent’s experiences on online learning during COVID-19 pandemic. In this section, respondents were asked to rate 13 questions according to the following scales: 1-strongly disagree, 2- disagree, 3-neutral, 4-agree and 5-strongly agree. The last section of the questionnaire was to determine respondent’s opinion on online learning. Two questions were distribute; do you think online learning is a good solution during a pandemic period? and how do you think communication can be improved between students and their lecturers through online classes?

C. Distribute Survey

The survey was distributed through WhatsApp group and Facebook. The target respondents were male and female students from age 18 years old and above. The students from 1st semester until 8th semester. A total of 100 students involved from three faculties. The faculties are Faculty of Business Management, Faculty of Information Technology and Multimedia, and Faculty of Health Science.

IV. RESULT AND ANALYSIS

The findings of the survey are presented and discussed under three sections as below.

Section A. Demographic Information

Demographic information consists of respondents’ gender, age, semester, and faculty. The result of respondents’ gender as shown in the Fig. 2.

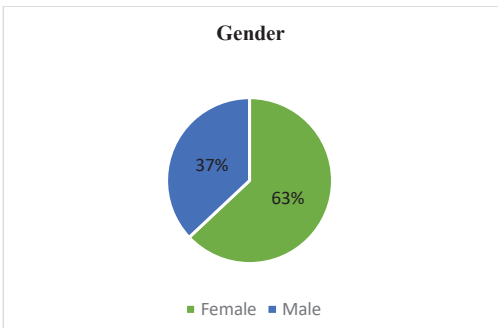


Fig. 2. Respondents gender

Fig. 2 shows the respondents gender. A total of 100 students participated in this study. 63% were female while 37% were male students.

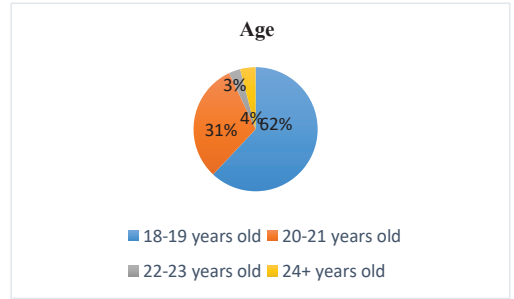


Fig. 3 Respondents age

Fig. 3 shows the age of the respondents. The results of the survey indicates 62% of the respondents were 18-19 years old, 31% were 20-21 years old. 3% of the respondents were 22-23 years old and the other 4% were 24+ years old.

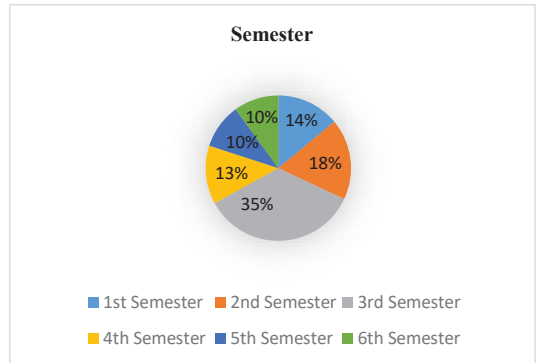


Fig. 4. Respondents semester

Fig. 4 shows the semester of the respondents. From the survey, 14% are in semester 1, 18% are in semester 2, and 35% of the respondents are in semester 3. Meanwhile, 13% of the respondents in semester 4, followed by 10% are respectively in semester 5 and 6.

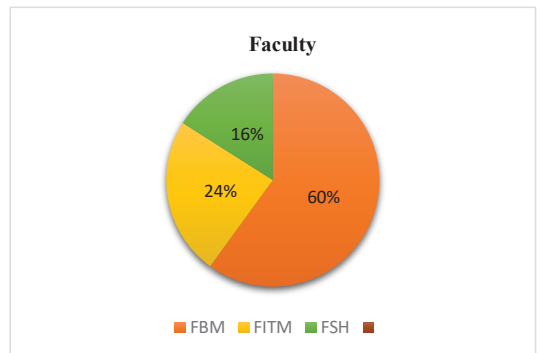


Fig. 5. Respondents faculty

Fig. 5 shows the faculty of respondents. It indicates 60% from Faculty of Business Management, 25% from Faculty of Information Technology and Multimedia, and 16% from Faculty of Health Science

Section B. Respondents Experiences on Online Learning

This section contained 13 questions and was composed based on the previous research. It distributed to the respondents in order to get their experiences on online learning as shown in Table I.

TABLE I
RESPONDENTS EXPERIENCES ON ONLINE LEARNING
(1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree)

Questions/Scales	1	2	3	4	5
Online learning is flexible.	4	13	46	27	10
Theoretical courses should be offered online.	6	8	45	29	12
Practical courses in online learning are difficult for students.	3	6	26	33	32
Insufficient and unstable Internet connection.	6	9	25	29	31
Lack of devices during online learning.	12	21	17	27	23
Unconducive learning environment.	9	6	29	27	29
Lack of self- motivation and have less interest to follow through with lessons conducted online.	10	13	38	16	23
Lack of self-discipline.	16	19	35	11	19
Unclear and inconsistent learning structure.	6	17	49	14	14
Online learning require a lot of time and intensive work.	3	9	35	28	25
Inadequate opportunity to communicate with classmates and group members.	5	7	19	33	36
Inadequate opportunity to discuss with lecturers.	3	10	32	29	26
Lack of technological skills.	7	14	40	22	17

From the results presented in Table 1, it revealed mostly of the respondents agreed the online learning is flexible which out of 100 respondents, 10% were “Strongly agree”, 27% were “Agree”, 46% were “Neutral”, 13% were “Disagree”, and 4% were “Strongly disagree”. Besides, respondents agreed theoretical courses should be offered online. 12% answered with “Strongly agree”, 29% answered with “Agree”, 45% answered with “Neutral”, 8% answered with “Disagree”, and lastly 6% answered with “Strongly disagree”. Next, majority of the respondents also agreed practical courses in online learning are difficult for students. The results are 32% strongly agree, 33% agree, 26% neutral, 6% disagree, and 3% strongly disagree.

Study results revealed that majority of the respondents complained about the insufficient and unstable Internet connection during their online learning. Out of 100 respondents, 31% answered with “Strongly agree”, 29% answered with “Agree”, 25% answered with “Neutral”, 9% answered with “Disagree”, and 6% answered with “Strongly disagree”. Only 15% of the respondents do not experienced with Internet problems. The results of the survey reveal that most of the

respondents have a lack of devices during online learning. The results are 23% strongly agree, 27% agree, 17% neutral, 21% disagree, and 12% strongly disagree.

The same situation happened for the less conducive learning environment where majority of respondents expressed their situation with 29% answered with “Strongly agree”, 27% answered with “Agree”, 29% answered with “Neutral”, 6% answered with “Disagree”, and 9% answered with “Strongly disagree”. Additionally, out of 100 students, 23% were “Strongly agree”, 16% were “Agree”, 38% were “Neutral”, 13% were “Disagree”, and 10% were “Strongly disagree” for the lack of self- motivation and have less interest to follow through with lessons conducted online.

While, for the lack of self-discipline, the results are 19% strongly agree, 11% agree, 35% neutral, 19% disagree, and 16% strongly disagree. Only 35% of the respondents have a good discipline during online learning. In term of unclear and inconsistent learning structure, 14% answered with “Strongly agree”, 14% answered with “Agree”, 49% answered with “Neutral”, 17% answered with “Disagree”, and 6% answered with “Strongly disagree”.

Majority of the respondents argued online learning require a lot of time and intensive work; 25% strongly agree, 28% agree, 35% neutral, 9% disagree, and 3% strongly disagree. Table 1 also revealed 69% (36% strongly agree and 33% agree) agreed online learning cause inadequate opportunity to communicate with classmates and group members. Similar to the situation where respondents also expressed they inadequate opportunity to discuss with lecturers. 26% answered with “Strongly agree”, 29% answered with “Agree”, 32% answered with “Neutral”, 10% answered with “Disagree”, and 3% answered with “Strongly disagree”. In term of lack of technological skills, the results shows 17% strongly agree, 22% agree, 40% neutral, 14% disagree, and 7% strongly disagree.

Section C. Respondents Opinion on Online Learning

First questions are “Do you think online learning is a good solution during a pandemic period?”. Most of the respondents agreed online learning is the best solution during a pandemic period in order to reduce cases. By using this solution, it could prevent themselves from being infected from COVID-19. Some of respondents argued their safety more secure at home rather than staying at college. However, some respondents expressed their desire to return to campus as soon as possible due to the constraints they faced. The constraints are Internet problems, availability of Internet access, lack of devices, uncomfortable study space, lack of communication and interaction with friends and lecturers, difficult to concentrate, less self-motivation, financial and family problems.

Next question is “How do you think communication can be improved between students and their lecturers through online classes?”. The findings showed majority of the respondents argued students and lecturers need to communicate with each other through class time or outside of class. Some respondents stated students need to always keep in touch with their lecturers either directly or indirectly. Students should ask lecturers to explain more if they do not understand about topic, and their roles to always be active in every classes. Students need to inform their lecturers if they have any problem, for example; financial or family problem. Besides, there were some respondents agreed lecturers need to ask questions to the students on the topic being studied and conduct a question and

answer (Q&A) session together with them. It can help students to understand more about the topics taught and for some students being left behind. In addition, respondents also stated lecturers need to always be sensitive and tolerant of the problems faced by students. Lecturers need to be an active listener to their students. By creating a fun learning environment, it can further enhance communication between lecturers and students.

V. DISCUSSION

The finding results revealed majority of the respondents agreed online learning is the best solution during the COVID-19 pandemic and it helps them to be safe. However, respondents claimed online learning is difficult. Respondents still prefer face-to-face classes over online classes due to many problems they face when taking online classes. Based on the overall findings, this study have achieved encouraging results to highlight some of the challenges raised in the online learning among MiCoST students. The challenges of online learning as shown in Fig. 6.

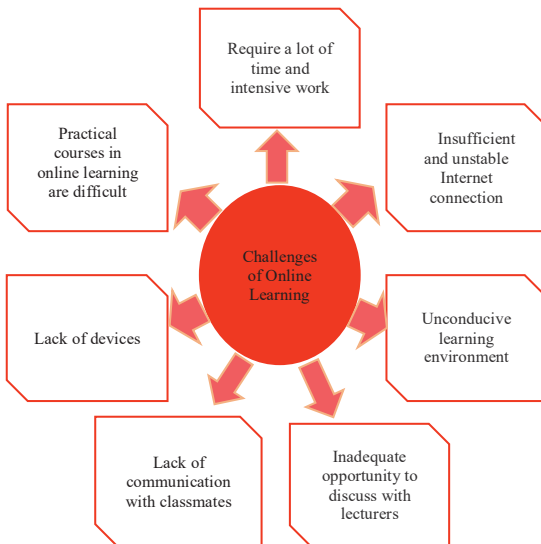


Fig 6. Challenges of online learning

Fig. 6 shows the challenges of online learning during the COVID-19 pandemic. The challenges are insufficient and unstable Internet connection, unconducive learning environment, lack of devices, lack of communication with classmates, inadequate opportunity to discuss with lecturer, practical courses in online learning are difficult, and online learning require a lot of time and intensive work. The explanation of each challenges are described below.

• **An insufficient and unstable Internet connection.** Not all students have good internet access in their homes, especially in villages and rural areas. This makes it difficult to optimize this online learning during this MCO [19]. Even if they have more devices, they also need data and it can be expensive for so many of them. Besides, many in every part of the country experience low internet speed during MCO due to the heavy usage of the internet.

• **Unconducive learning environment.** Students who come from poor families had to live in a cramped house and had to share a room with other siblings throughout MCO. The uncomfortable study space will make students difficult to focus when online classes are conducted. Besides, parents seem do not understand and give tasks to their child during online classes.

• **Inadequate opportunity to discuss with lecturers.** Communication barriers during online classes certainly make it difficult for students to get the most out of their education. Students want two-way interaction that sometimes gets difficult to implement [1]. Lecturers fail to create engaging lessons and struggle to connect with their students on a one-to-one basis.

• **Lack of communication with classmates.** Students inadequate opportunity to communicate with classmates and group members during online classes especially when involved assessment by group. It difficult for the students since they may exchange ideas and enhance their knowledge.

• **Lack of devices.** Most of the students were not able to follow online classes effectively during the MCO because they do not have the appropriate devices [22]. Many of the students who come from poor families where they do not have laptops or computers at home [21].

• **Practical courses in online learning are difficult.** It is impossible to put into practice without in-person instructions and courses relying mostly on hands-on work. Online learning cannot reach its full potential until students practice what they learn. Sometimes, online content is all theoretical and it does not let students practice effectively [1].

• **Require a lot of time and intensive work.** Online learning has given complications to students, as it requires them to face a computer screen or a phone screen for a long period. There are many students who have experienced high stress and anxiety because they are too tired to have to complete assignments overtime to catch up with the deadlines set by the lecturer, which ultimately contributes to emotional instability [23].

The problem of Internet access and device acquisition constraints become the main issues that need to be addressed as the online learning becomes an alternative to face-to-face sessions, which cannot be done during this time. These findings also argued online learning have negative impacts on communication. The interaction with their lecturer have become harder. It revealed respondents do not feel encouraged to participate in taking courses online and their understanding of the material has become worse. Online learning needs a lot of commitment, dedication, and self-directed learning attitude by the students. COVID-19 outbreak created a panic and distress among student community [5]. The challenges of online learning outweigh the benefits and all parties should work together towards eliminating any difficulties students might have in order to achieve the learning goals.

The issue of Internet access must be taken on joint responsibilities by the government and telecommunication companies which can be achieved on a win-win basis. Second, non-governmental organization (NGOs), private parties, and

individuals need to cooperate to raise funds to help those who are less capable to obtain devices. Third, lecturers and colleges need to think of alternative methods as a complement to students to be easily accessible offline to facilitate students to follow the existing teaching and learning. Lecturers need to actively conduct discussions via WhatsApp or Telegram to monitor the comprehension status of students.

Besides, lecturers should encourage students to participate and study more by providing different kind of incentives. It also important that lecturers listen to their students and understand their thoughts and ideas. By actively listening, they will develop empathy and understanding for their students and be able to assess if they understand what they are being taught. Lecturers need to persuade students that communication is helpful to their learning [24]. The communication between students and lecturers are important aspect in online learning. Students should improve their communication with lecturers through more informal channels such as instant messages, online chat groups, audio calls, or video calls. The most important is to stay in touch with lecturers and inform them about what is happening. Students should always prepared and asks any information that they may not understand.

VI. CONCLUSION AND FUTURE WORK

This study reached the students point of view in a broader way that will help to understand any issues related to the online learning and provide effective solutions. The findings further revealed that the COVID-19 pandemic had the greatest impact on the quality of the learning experience. The data was collected by using an online survey which was distributed to a random sample of 100 students from MiCoST. This study studied the challenges from student's experiences only as the sample is selected only from MiCoST students. As future, this study intent to broad our scope and respondents. Besides, in-depth interview techniques can be conduct to study more about online learning among the students.

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