



Students' academic performance in the online learning sessions during the movement control order for Covid-19 pandemic: Students' perspective

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Abstract

The whole world had suffered the Covid-19 pandemic and most countries had practiced social distancing and Movement Control Orders (MCO) for a variable duration on time. Because of MCO, educational institutions including universities had to shift to online learning. This dramatic change in the mode of learning is expected to affect the students' academic performance. This research aimed to explore the students' reflection regarding the online mode of learning and to detect if this affected their academic performance. A cross-sectional study has been implemented among students of the International Medical School, Management and Science University, Malaysia through an online questionnaire distributed in April 2020 investigating the students' demographic characteristics and the effectiveness of online learning from their point of view. The results regarding the students' perception of the effectiveness of online learning, showed that 30.4% of the students agreed that the discussion during online learning was depth and comprehensive. 41.8% of the students agreed that they had discussed more and used more resources during online learning. 23.2% of the students agreed that they learned better through online learning while 19.6% agreed that they learned better through online learning. Regarding participation and interaction during online learning, 25.8% agreed on that online learning promotes more participation and interaction while 42.3% of the students agreed that it was difficult for them to ask and to answer questions through online learning. 45.9% of the students suffered technical issues during the online learning session, and 33.5% of the students required more budget for internet connection. 41.8% agreed that there was an increased distraction during the online session. And 35.1% of the students agreed that it was harder for them to be motivated during the online session. These results are representing this period of time which is one month after the start of MCO, and more research is needed to be implemented after the students get used to the new normal mode of learning.

Keywords: MSU; Covid-19; MCO; Students; Academic achievement

1. Introduction

Globally, governments in 61 countries had announced the closure of educational institutions to slow the spreading of covid-19. According to UNESCO, over 39 countries had closed schools, colleges, and universities, which had impacted over 420 million youths and children [1]. On the other hand, the covid-19 crisis had made the educational institutions accept modern educational technologies which they were reluctant to change earlier [2]. To adapt to the new norm, various online learning software was being explored and used by the lectures to bring maximum possible ease for their

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students during the pandemic [3]. Regarding the online learning platform, the student and the lecturers were encouraged to utilize available online learning tools such as WebEx, Google Classroom, Quizlet, Quizizz, Kahoot, Socrative, and Zoom. There was uncertainty about the procedure for administering assessments, projects, and assignments. Faculty members needed to change assessment types to fit the online mode of learning. There are also some practical and performance tests that were not possible to conduct online. There would be a challenging task in applying assessments online for the courses designed for face-to-face learning [4]. It was proven that the students same as the other community members, had suffered physical and psychological effects during MCO [5, 6] So this study is done to explore of these effects can include the students' academic performance due to the use of the online mode of teaching during the period of the first MCO implemented in Malaysia at March 2020 which may help to plan for a strategy to improve the effectiveness of online learning among university students.

2. Material and methods

A cross-sectional study has been implemented among students of the International Medical School, Management and Science University, Malaysia through an online questionnaire distributed in May 2020 investigating the students' demographic characteristics and the effectiveness of online learning from their point of view. The total responses to the questionnaire were 192 students. The Malaysian government ordered MCO on March 18th, 2020 and this research questionnaire was distributed to the students in the period of 2 weeks at end of April 2020 (1 month after the start of MCO).

The first part of the questionnaire included inquiries for the demographic characteristics e.g., gender, age, race, religion, education level, family monthly income, place of residence, and whether the students were living with family or not. Part 2 of the questionnaire investigated the students' reflections regarding the online learning sessions e.g., how comprehensive and depth the discussion was, do the students learn more and better, how are the students' interaction and participation, was it difficult to answer, and to ask the questions, any technical issues during the session, and was it harder to be motivated during the online learning session.

The academic effects of MCO on the student were indicated by measuring their response regarding the effectiveness of online learning. The questionnaires comprised 10 items regarding online learning. Each item was administered via a 5-point scale (1-strongly agree, 2-agree, 3- neutral, 4-disagree, 5-strongly disagree).

Demographic characteristics were presented as descriptive statistics and the students' perceptions regarding online learning were expressed as percentages. The percentage of responses was calculated according to the number of respondents per question. Statistical analysis was performed using SPSS statistic 21.0.

3. Results

The online survey of the effect of the MCO on university students was conducted within 1 month period from the start of MCO, during the last 2 weeks of April 2020 when Malaysia was going through a phase of a rapid increase in the number of newly Covid-19 cases and death. In total, 200 responses were received through the Google form application with 6 respondents who failed to complete the questionnaires.

Table 1 summarizes the demographic characteristics of the respondents. Of all the respondents, 153 (78.9%) were female, and 111 (57.2%) were aged between 22-25. The majority of the respondents 151 (77.8%) were Malay and the respondents have comprised the students studying in bachelor (73.2%), diploma (24.7%) and master (2.1%). Most of the respondents 148 (76.3) were staying in an urban area, 150 (77.3%) were staying with the family and 93 (47.9%) of the students were reported to have a monthly household income of less than RM 2000.

The result represented in table 2 showed that 30.4% of the students agreed that the discussion during online learning was depth and comprehensive. 41.8% of the students agreed that they had discussed more and used more resources during online learning. 23.2% of the students agreed that they learned better through online learning while 19.6% agreed that they learned better through online learning. Regarding participation and interaction during online learning, 25.8% agreed that online learning promotes more participation and interaction while 42.3% of the students agreed that it was difficult for them to ask and answer questions through online learning. 45.9% of the students suffered technical issues during the online learning session, and 33.5% of the students required more budget for internet connection. 41.8% agreed that there was an increased distraction during the online session. And 35.1% of the students agreed that it was harder for them to be motivated during the online session.

Table 1 Descriptive data of the demographic characteristics of the study participants

Demographic characteristic	N (%)			
	Gender	Male		Female
41 (21.1%)		153 (78.9%)		
Age	18 - 21 years	22 - 25 years		26 - 29 years
	73 (37.6%)	111 (57.2%)		10 (5.2%)
Race	Malay	Chinese	Indian	Others
	151 (77.8%)	7 (3.6%)	23 (11.9%)	13 (6.7%)
Religion	Muslim	Buddha	Hindu	Christian
	164 (84.5%)	3 (1.5%)	24 (12.4%)	3 (1.5%)
Education Level	Diploma	Bachelor		Master
	48 (24.7%)	142 (73.2%)		4 (2.1%)
Place of residence	Rural		Urban	
	46 (23.7%)		148 (76.3%)	
Monthly household income	<2000 RM	2000-5000 RM	5001-10000 RM	>10000 RM
	93 (47.9%)	48 (24.7%)	34 (17.5%)	19 (9.8%)
Staying with the family	Yes		No	
	150 (77.3%)		44 (22.7%)	

Table 2 Students’ performance during online learning from their point of view

Items	N (%)				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The discussion during the session was depth and comprehensive	12(6.2)	59(30.4)	86(44.3)	35(18.0)	2(1.0)
I thought we have discussed much longer and used more resources	20(10.3)	81(41.8)	75(38.7)	18(9.3)	0(0)
I learn more in this setting	8(4.1)	45(23.2)	74(38.1)	54(27.8)	13(6.7)
I learn better in this setting	9(4.6)	38(19.6)	73(37.6)	57(29.4)	17(8.8)
It promotes more participation and interaction	11(5.7)	50(25.8)	72(37.1)	46(23.7)	15(7.7)
It’s difficult to answer and questions	20(10.3)	82(42.3)	63(32.5)	22(11.3)	7(3.6)
There are technical issues during the session	56(28.9)	89(45.9)	34(17.5)	14(7.2)	1(0.5)
It requires more budget for internet plan	61(31.4)	65(33.5)	44(22.7)	20(10.3)	4(2.1)
There is increased distraction during the session	55(28.4)	81(41.8)	43(22.2)	13(6.7)	2(1.0)
It harder to be motivated during online session	66(34.0)	68(35.1)	45(23.2)	12(6.2)	3(1.5)

4. Discussion

Findings from the current study showed that most of the students agreed that they learned better and learned more during online learning sessions. This finding was similar to previous research conducted where they stated that they were having a better understanding of what they learned compared to what they did in class. Some of the students also said that they could participate more during the session which it helped them to understand the ideas thoroughly [7]. Despite positive feedback toward online learning, the majority of the students also agreed that there were technical issues and an increase in distraction during the session, it requires more budget for an internet plan and it was harder for them to become motivated during the online sessions. It has been previously stated that the majority of the students were experiencing technical issues during online learning [8]. Technical problems during the online session might occur due to poor internet connectivity, and the absence of a favorable environment to study at home [9].

Research conducted at Kent University, the researchers analyzed the behavior of 300 university students who took online and face-to-face courses; 25% said they were more likely to listen to music, send text messages, chat on social networks or surf the Internet in online courses than in a classroom [10]. Meanwhile a previous study among medical students showed the discussion during online sessions were in depth and comparative to normal face to face sessions (63%), students can remember the details and ideas of discussion during their online sessions (52.9%), students found that time allocated for discussion is enough (72%) and appreciate flexibility and Convenience (53%). Moreover, most of the students are ready to continue online learning even after Covid-19 is over [11].

Another study found that students were having lack of motivation to engage in online learning. Unstable internet connection, being alone without motivation and support from friends, fail to understand lectures were some of the reasons why the students felt less motivated and down during class [12]. Poor economic students could also be a reason for an unfavorable environment and the lack of separate room for privacy for the students to study at home cause an increase in distraction by the family members [13].

The students also faced problems adjusting to a learning paradigm where they were unable to ask questions in class and get instant feedback from the lecturers caused them to do more background reading before each class and engage in online discussions [8]. Restricted movement order also had a serious impact on the career of current university graduates where they experience an interruption in assessment in the final part of their studies. They were more likely to experience a postponement of the final examination that caused them to graduate late than they expected [4]. All these interruptions could have long-term consequences for the affected cohort and be likely to increase inequality [14].

5. Conclusion

During this period of MCO, students responded that they did not learn more or better during online learning due to experiencing technical issues and increased distractions during online sessions, they also need to spend more budget for an internet plan and it was difficult for them to be motivated during online learning. Subsequently, it can be concluded that the response of the student to online learning may be too much dependent on the student's own criteria either on the need for technical, or financial support to get good access to online sessions and to have a suitable motivating environment to ensure engagement in the classes. Further research is needed after a longer period of time to investigate the long-term effects of MCO.

Compliance with ethical standards

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Disclosure of conflict of interest

Authors declare the presence of No conflict of interest from any point of view related to this research.

Statement of informed consent

All study participants has expressed an informed consent before responding to this research.

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