Students' Perception and Challenges Towards Online Learning during COVID-19 Pandemic

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ABSTRACT

The COVID-19 pandemic has caused major disruption to the global socio-economic sector including the education system worldwide. The significant impact on the education sector, had also led to the sudden changes on the learning and teaching process. The longing of pandemic has urged educators worldwide to switch the learning style from face- to- face to via online learning platform. Hence, educators need to be more creative in dealing with the new norm, particularly to meet the learning goals and agenda during the Movement Control Order (MCO). However, the issues of student readiness and online learning effectiveness is not clearly understood, particularly on the technical constraints such as device suitability and bandwidth availability pose a serious challenge. This study focuses on understanding the perceptions and challenges of Diploma in Civil Engineering Program students towards online learning. The data collection method was conducted using survey questionnaire via online platform among 267 students. We also study the challenges faced by students from several angles. The quantitative data was compute using a descriptive analysis method of mean score to obtain the study aim. The results evidence that students' perceptions of online learning during the COVID-19 pandemic situation were at a moderate level (mean score=3.20). The findings indicate that the online learning challenges faced by students, particularly the internet facilities and learning environment were at a moderate level (mean score=2.95). Interestingly, the study also proves that the level of effectiveness of online learning is at high level (mean score = 3.83). The result found no significant difference in perception of students towards online learning between male and female students.

Key Words: Online Learning, Pandemic, Perception, Challenge

1. INTRODUCTION

The current COVID-19 pandemic situation has changed the teaching and learning method from face-to-face methods to online learning. The extended school closure and institutions of higher learning in line with the Movement Control Order (MCO) presents a new challenge to educators, particularly to ensure the continuity of the students learning process. Online learning to replace face-to-face learning occurs abruptly during MCO period. Various teaching mediums have been introduced such as Google Meet, Google Classroom, Zoom, Microsoft Teams and other applications to execute the online learning process (Mohammad, R., 2020). Although there are various online learning platforms available, however the implementation of the new learning style is not as easy as we thought. There are several challenges of online learning that need to undergo by both educators and the students. Among the notable challenges are the absence of learning devices and inconducive learning environment during the online learning session. These learning circumstances is among the challenges faced by polytechnic students who need to undergo the online learning process during the Movement Control Order (MCO) period. According to Tuan Nguyen (2015) study, the effectiveness of online teaching is seen to be less effective at 92% as compared to face-to-face teaching method. However, on the contrary, other 3% of the sample stated that online teaching is more effective than traditional method. Another 4% of the sample have mixed opinion.

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Proceedings: *International Invention, Innovative & Creative (InIIC) Conference, Series 2/2021*
eISBN: 978-967-18412-7-3 *(Publication Date: 9 November 2021)*   *MNNF Publisher*

Therefore, this study aims to find out more on the perception and challenges faced by polytechnic students' regarding the online learning during the COVID-19 pandemic. In addition, the study also conducted to determine whether there exists a significant difference of students' perceptions on online learning method based on genders.

2. LITERATURE REVIEW

According to student perception studies, online learning needs to pay attention to course design, learner motivation, time management and convenience with online technology (Song et al., 2004). A recent study by Yahaya M. & Adnan W.H. (2021), among challenges faced by public higher learning institution students in Malaysia using online learning includes the internet access, the internet costing, inconducive learning environment and the effectiveness of virtual learning. Moreover, Abu Hassan, S.A., et.al (2021) findings related to online learning has shown a moderate mean score value. Hence, indicates that there are no major challenges in the implementation of online teaching and learning. The results of their study also showed that the level of online learning effectiveness was at high level.

Additionally, Purwadi et al. (2021) found in their study that students perceive the online learning during the COVID-19 pandemic as ineffective learning method, unpleasant learning environment, limit the self-actualization in education, and encourage the students to become more independent in the learning process. Meanwhile, the study of Mohd Rusli N.F.H. et al. (2020), found that majority of students respond positively to the perception of interactive multimedia applications in the teaching and learning process in the classroom. The finding also evidence that this method can help the students to stay more focused as well as understand the content of the learning lesson more easily.

The issue of gender differences in various study angle has been extensively studied worldwide. In the context of education, gender differences related to academic performance remain one of the interesting issues to study. Busch (1995) in Mohd Jelas, Z., et.al (2005) reported that in the 1980s and early 1990s, studies on gender revolved around the student self-efficacy issues including the use of computer, which showed relatively significant differences between genders. Moreover, the findings of Mohd Jelas, Z., et.al (2005), indicate that female students have more skills and learning strategies that help the learning process and preparation to face their exams as compared to male students.

3. METHODOLOGY

This study used a quantitative research design to collect data. The respondents of the study consisted of 267 students of Diploma in Civil Engineering Program who were randomly selected based on the table sample size determination Krejcie & Morgan (1970). The students involved 120 male students and 147 female students of Politeknik Kuching Sarawak. The students involved in this study are from those who experience the online learning during the MCO period due to COVID-19 pandemic. This study used a survey questionnaire as a tool to collect the stipulated data.

The survey instrument consists of 23 questions, which divided into four parts. Part A is the demographics of respondents, part B is the students' perceptions of online learning, part C is the challenges faced by students in online learning and part D is the effectiveness of online learning. Part B, C and D questions were measured using five Likert scale rating categories, ranges from (5) Strongly Agree, (4) Agree, (3) Neutral, (2) Disagree and (1) Strongly Disagree. The data were analysed using Statistical Package for the Social Sciences (SPSS) Version 20. Descriptive statistics were used to analyse the respondent's profile and the learning effectiveness of online learning. A pilot study has been carried out to determine the reliability of the questionnaire. The Cronbach's Alpha value was used to test the reliability of the instrument. The coefficient value is 0.850 which is good. According to Sekaran (1992), the Cronbach's Alpha values between 0.60 to 0.80 are accepted while Cronbach's Alpha values above 0.80 are considered good. Mean Score Interpretation used in this study adapted from Mohd Najib (2000) as in Table 1.

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Table 1 Mean Score Interpretation

Statement	Mean Score
Low Level	1.00-2.33
Moderate Level	2.34-3.66
High Level	3.67-5.00

4. RESULTS AND DISCUSSION

4.1. Demographic Information of Respondents

Table 2 shows the outputs of a summary of respondent's demographics background.

Table 2 Demographics Information of Respondents

		Frequency	Percentage
Gender	Male	120	44.9.
	Female	147	55.1
Level of study (Semester)	1	41	15.4
	2	33	12.4
	3	31	11.6
	4	91	34.1
	5	71	26.6
Own computer/device with internet	Yes	255	95.5
	No	12	4.5

Table 2 shows that 120 or 44.9% of respondents are from male students and 147 or 55.1% are from female students. The findings also show that 95.5% of students own a computer or device with internet access. 15.4 % of respondents are in Semester 1, 12.4% are in Semester 2, 11.6% in Semester 3, 34.1% in Semester 4 and 26.6% respondents are in Semester 5, respectively.

Table 3 Students' Perception of Online Learning

No.	Item	Mean Score	Standard Deviation	Interpretation
1	I feel excited every time following online learning.	3.48	0.923	Moderate
2	I don't have any problem following online learning.	3.34	0.982	Moderate
3	I feel enjoy online learning.	3.04	1.086	Moderate
4	I have always been able to focus on online learning.	2.72	0.935	Moderate
5	Online learning is exciting.	3.34	1.030	Moderate
6	I can understand very well when following online learning.	3.30	0.999	Moderate
	Average	3.20	0.993	Moderate

The results in Table 3 presents all six items tested. According to table 3, the result evidence that the average score obtained from Students Perception of Online Learning is average mean score =3.20, STD=0.993). Hence, indicating that students' perception towards online learning during COVID-19 pandemic is at moderate level. Indeed, the study by Khan,M.K. et al. (2020) reveals that on students' shows positive perception towards e-learning. Hence, indicating good acceptance of this new learning method among the students. Moreover, students who have positive perception of online learning, has consider online learning as a fun learning method, plus making them more independent in learning. While students who think negatively view online learning as an ineffective, unpleasant activity and even limit their self-actualization (Purwadi et al., 2021).

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Table 4 Challenges faced by Students in Online Learning

No.	Item	Mean Score	Standard Deviation	Interpretation
7	Internet access is limited at my residence.	3.17	1.107	Moderate
8	My internet access is often interrupted during class.	3.22	0.969	Moderate
9	I had to go out to the outside of the residence to get internet access during class.	2.49	1.344	Moderate
10	I need to get Wi-Fi outside the house or use someone else's internet facility to follow online learning.	2.51	1.063	Moderate
11	The high cost of the internet makes me feel burdened to pursue online learning.	3.03	1.030	Moderate
12	The noise disturbance caused me to be unable to concentrate while pursuing online learning.	3.46	0.974	Moderate
13	I feel uncomfortable with the study space in my residence during online class.	2.86	1.006	Moderate
14	I have to do other work while attending online class. (Example: helping family members do homework).	3.23	1.131	Moderate
15	My family members often interrupt me when I am pursuing online learning.	2.56	1.217	Moderate
	Average	2.95	1.093	Moderate

Table 4 shows that all nine items have shown moderate levels (average mean score =2.95, standard deviation average=1.093). The findings of this study indicate that there are no significant challenges among students in the implementation of online learning during COVID-19 pandemic. The findings of this study aligned with the study conducted by Abu Hassan, S.A et al. (2020) where the above analysis to all items of challenges faced by students in online learning is at moderate level.

Table 5 Effectiveness of Online Learning

No.	Item	Mean Score	Standard Deviation	Interpretation
16	The online learning content provided by the lecturers is easy to understand	3.84	0.731	High
17	The reference (such as notes and video) provided by the lecturer during online class is helpful in understanding	3.88	0.838	High
18	The explanations given by the lecturers during the online classes help in understanding.	3.82	0.780	High
19	The activities conducted during the online class attracted my interest to follow the class	3.67	0.803	High
20	The online learning meeting platform provided by the lecturers is suitable for learning sessions	3.92	0.848	High
	Average	3.83	0.800	High

The analysis presented in Table 5, indicates all five items tested shows high levels score with average mean score =3.83, standard deviation average=0.800). This analysis shows that students' perception towards the effectiveness of online learning during COVID-19 pandemic are at high level. The high level of effectiveness shows that online learning provides new opportunities to the new generation with better learning method and offers better communication system regardless of place and time. Therefore, the students have considered online learning during the COVID-19 pandemic as an activity that helps them to become more independent person in education with the lecturer's supervision. Hence, throughout this new learning method, students would also feel comfortable during the learning process (Purwadi et al., 2021).

Table 6 t-Test results on students' perception levels based on gender

Gender	No.	Mean	Standard Deviation	T-value	Significant (p)
Male	120	3.45	0.431	0.855	0.393
Female	147	3.50	0.482		

The following hypotheses are formulated to compare the level of perception of male and female students:
H0: There is no significant difference in perception of students towards online learning between male and female students.
H1: There is significant difference in perception of students towards online learning between male and female students.

Table 6 present the results of online learning perception based on gender factor. The results indicated that the t-value for the gender comparison is 0.855. Meanwhile, the p-value is 0.393. From the statement, the p-value significance level was greater than 0.05 (p> 0.05). Therefore, the null hypothesis (H0) is accepted. Thus, indicated that there was no significant difference between both male and female students on online learning perceptions.

CONCLUSION

The results of the study found that students' perception and the challenges among students in the implementation of online learning during COVID-19 pandemic towards online learning are at moderate level. Besides, the analysis of the study found that the level of effectiveness of online learning is at a high level and there are no significant challenges found among students on the online learning implementation during the COVID-19 pandemic. Hence, the findings suggests that online learning and teaching provides new opportunities via the online learning. However, this method requires strong commitment from all parties involved. The commitment of lecturers and students are also very important to ensure that teaching and learning activities in this new norm can be implemented well. It is hoped that the results from this study could assist the relevant parties for future improvement for online learning.

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