A Study on Online Learning for UTHM

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ABSTRACT

Online meetings are arguably the most widely used method since the Coronavirus pandemic hit the world among office workers to do such as meetings and because of students may face several challenges throughout the e-learning process held. The main objective of this research is to explore the factors that affect students' satisfaction regarding the online classes. All the 100 respondents from UTHM Pagoh students were taken as representing the population set in UTHM Pagoh students. This research is qualitative data and were analysed by using IBM SPPS Statistic to find the mean, standard deviation, percentage, and frequency with the data collected consists of four sections which are demographic info, the factors, the students' attitudes, and the ways to make online learning more interesting with five questions each section. The results revealed that, the factor that most contribute to student dissatisfaction in online learning is the problem of networks with 4.16 as the mean. Most students' attitude towards online learning is their lack of interest and involvement during classes with 3.69 as the mean and 4.43 mean for the way to make online classes more interesting is with lecturers can use some creative tools to teach.

Keywords:
Online learning, factors, attitudes, COVID-19

1. Introduction

This On 11 March 2020, WHO made the assessment that COVID-19 can be characterized as a pandemic since it was eventually identified in Wuhan on 31 December 2019 [1] and Online meetings are arguably the most widely used method since the pandemic.Therefore, MOHE has taken the initiative to continue All PDP activities but cannot be done face to face until 31 December 2020 or a date notified by the government. All PDP activities should be implemented online. HEIs need to plan and design re-PDP to adapt to online PDP methods [2] which is by online learning. However, not all students can adapt to online learning method as they are new to this method.

In short online learning is a type of schooling where students utilize their home computers through the web remaining away from school or academic institutions [3], meanwhile offline class is the conventional partner to online schooling and the first technique for discovering that permits students to have customary up close and personal communications with other students and

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instructors [4]. One of the main advantages of online classes is availability [5] which is students can simply log in from anywhere and gain access to learning material with the convenience of the easily attending their lectures without having to leave the safety of their homes. Meanwhile one of the main disadvantages is the problem of internet data [6]. The government has offered telephone and laptop assistance to digitally poor students as a way to overcome this problem [7]. The learning and teaching aspects were also affected because of the COVID-19 pandemic and there are some students able to understand the e-learning process and some of them can not catch up during the e-learning process. Online learning methods can influence students in terms of the technology itself, student attitudes, student motivation, time as well as being so flexible that students fail to follow the learning sessions and it can invite stress to these students.

There are three objectives of this research where all the research are achieved. The first objectives of this study are to identify factors that affect students' satisfaction since about 19.64% students got F (Failed) in final course grade when online learning happened compare to face-to-face classes, 10.81% from 105 participants from US Department of Education [8]. The second objective is the students' attitudes toward online learning were also determined where research from colleges and universities students in Bangalore city state about 54.9% from 407 participants disagree that online classes are more effective than face-to-face classes [9]. The last objective is for determined the most appropriate ways to make online learning more attractive for students. About 12.7% of 407 Participants state they felt lack of motivation to attend online classes and they just attend the class for attendance [9]. This experiment also was conducted with 100 respondents from student UTHM Pagoh to analyse mean, median and standard deviation that were assessed using a 5-point Likert scale using IBM SPSS. According to data obtain after analyzing the respondents' responses, the main factor that leads to students' dissatisfaction with online learning can be identified as well as their attitudes toward online learning. Finally, the best ways to make online learning more interesting can be identified according to the views of the students.

2. Methodology
2.2 Instrument of the Study

The purpose of this study is to examined the problem faced by the students, student's perceptions, and the ways to make online learning look better and more attractive from a student's perspective. The method used in this study to collect data from the students regarding online learning is a Google Form questionnaire. The number of respondents is 100 respondents which consists of diploma and degree students as taken due to the maximum number of respondents before the analysis were carried out on the data collected. The greater number of the sample taken, the higher the possibility sample of representing the population set from UTHM Pagoh students and increase the confidence interval of the population data. The questionnaire was distributed through the WhatsApp group consist about 66 to 278 students from 5 different groups chat.

The questionnaire consists of four sections. The first section is about demographic info of respondents which is including gender, age, and level of education either diploma students or degree students is collected. The second section is about factors that affect students' satisfaction and performance during online learning. The third section is about student attitudes and perceptions toward online learning. The last section is about ways to make online learning look better and more attractive according to the views of the students since the current pandemic. All the questionnaires given was collected from references [9][10] with help of supervisor to review and modified the sentences according to with the title conducted. Each section contained 5 question and assessed using a 5-point Likert scale answer because it much more precise and avoids the loss of precision in

the answers. The level is included with strongly disagree, disagree, neutral, agree and strongly agree.

2.2 Data Analysis

The data obtained from the questionnaire were analysed using IBM SPSS Statistics 26 Version software and the result was analysed to find out the frequency, percentage, mean and standard deviation were determined. The purposed of finding value mean is to get the average point data based on that 5-point Likert scale. Meanwhile the purposed of finding the value standard deviation is get the average difference between actual data and the mean value.

3. Results

This experiment was conducted with 100 respondents from UTHM Pagoh students. 25 of them are male and the rest are female. Most of the rrespondents consisted of 18 to 20 years with a total 75 people. Out of 100 respondents, 76 were diploma students and 24 were degree students as shown in Figure 1.
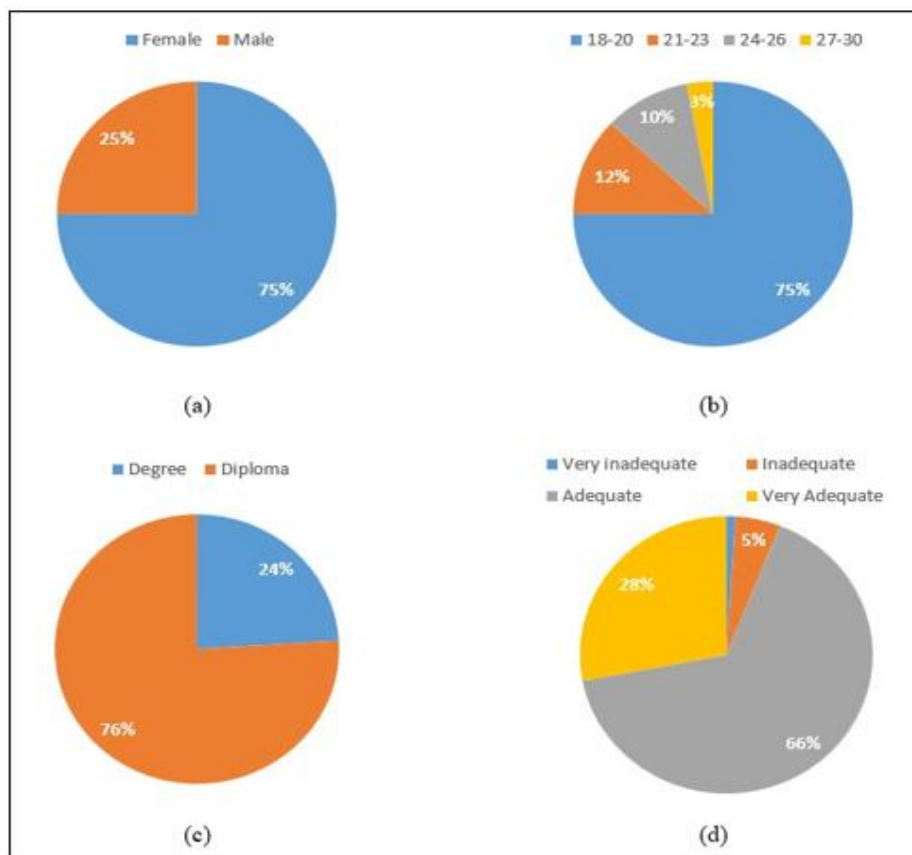
Fig. 1. Pie chart of demographic information's respondents (a) gender, (b) age, (c) level of education, and (d) adequacy of gadget

Table 1 shows the mean for respondent's satisfaction is 3.81 meanwhile 0.873 for standard deviation. According to respondents, most of them with a total of 66 people stated that their gadgets for online learning were adequate and one stated that their gadgets for online learning was very inadequate. Lastly, is the level of satisfaction of the respondents towards online learning. Result

shows with the total of 50 from 100 respondents were satisfied on scale 4 and one person stated it is very unsatisfied which is at scale 1 with online learning.
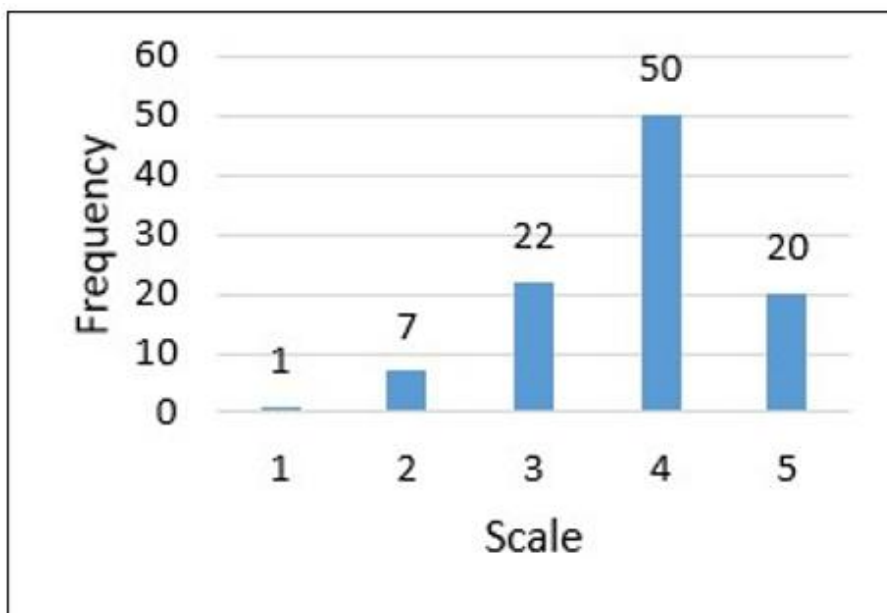
Table 1
Mean, median, and standard deviation of respondent's satisfaction with online learning

Mean	Median	Standard deviation
3.81	4.00	0.873

Based on Table 2 the most factor that affect student's satisfaction and performance during online learning is network problems with 4.16 as mean and 0.918 as standard deviation. While, Figure 2 shows the chart of the respondent's satisfaction of online learning.

Table 2
Mean, median, and standard deviation of factor that affect student's satisfaction and performance during online learning
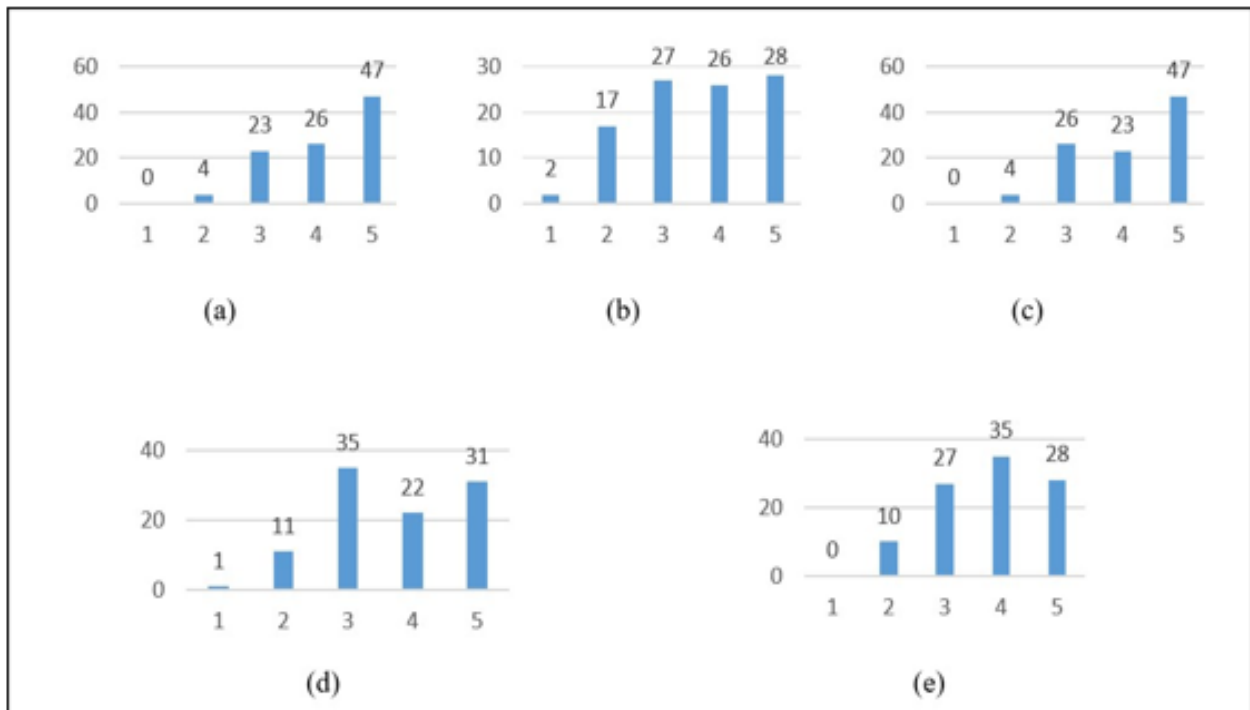
Factor	Network problems	Device problems	"I got easily distracted during class"	Boring lecture presentation during class	Classes doesn't have two-way communication
Mean	4.16	3.61	4.13	3.71	3.81
Median	4.00	4.00	4.00	4.00	4.00
Standard Deviation	0.918	1.127	0.939	1.057	0.961

Fig. 2. Column chart of respondent's satisfaction of online learning

According to Figure 3 explained about 47 respondents strongly agree that network is main factor that affect student's satisfaction. In the beginning of MCO, most students were at home rather than at their universities, and not all students have wifi internet that made students used money to buy a data internet plan for online classes. However, there are students who come from places with limited internet network connectivity. As a result, they struggle with online learning. Students will use the free wifi for online study once the government allows them to return to their university dormitories. However, there are occasionally issues or failures when connecting to wifi, or when

connected but no internet is available. As a result, networking is a significant issue impacting student satisfaction in online learning.


Fig. 3. Factor that affects student's satisfaction and performance during online learning (a) network problems, (b) device problems, (c) "I got easily distracted during class", (d) boring lecture presentation during class, and (e) classes doesn't have two-way communication

For student's attitude toward online learning according to respondents, the most approval for student's attitude towards online learning according to respondents is they lack interest and involvement during classes with mean 3.69 and standard deviation 0.963 as shown in Table 3. Students lack interest and involvement in class because there is no two-way connection between the speaker and the students. This makes the class unpleasant. Because online learning may be recorded, students can redirect their attention to other things when they are bored or drowsy, such as playing cell phone. As a result, people may only watch the recorded video if they do not pay attention in class. Such circumstances cause students to be less engaged and interested in online programs. While, Figure 4 shows the student's attitude toward online learning.

Table 3
Mean, median, and standard deviation of student's attitude toward online learning

| Student's Attitude	Lack of interest	Do not take online classes seriously	Responding student	Completed the assessment honestly	100% commitment
Mean	3.69	3.33	3.06	3.49	3.55
Median	4.00	3.00	3.00	3.50	3.00
Standard Deviation	0.963	1.190	1.144	1.087	1.095

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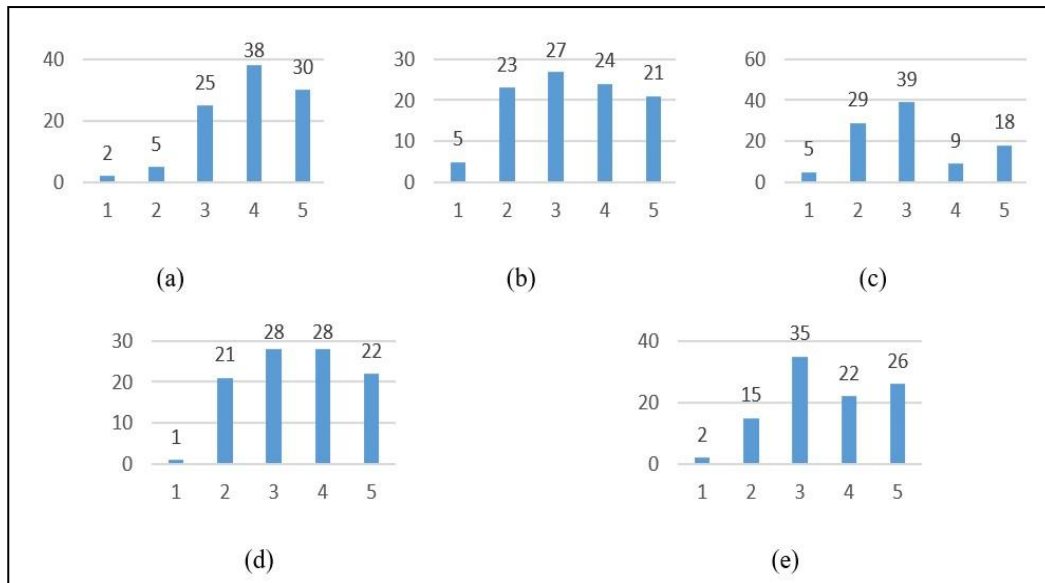
Fig. 4. Student's attitude toward online learning (a) Lack of interest, (b) Do not take online classes seriously, (c) Responding student, (d) Completed the assessment honestly, and (e) 100% commitment

As shown in Table 4 the most approval of the ways to make online learning look better and more attractive is the lecturers can use some creative tools to teach such as Kahoot or Quizziz with the highest mean which is 4.43 and standard deviation is 0.742. Total respondent that strongly agree, agree and neutral are 58 respondents, 27 respondents and 15 respondents as display in Figure 5. Students will be more interested in class if lecturers utilize interactive tools like Quizizz or Kahoot. This sort of website is similar to online games in that it motivates students to participate in the evaluation and becomes more interested in the topic once they have completed it. Instead of sending students basic PDF evaluations and quizzes, this strategy is more engaging since it includes various other aspects such as music, clocks, boosters, and more. This increases students' motivation to learn online.

Table 4
Mean, median, standard deviation of ways to make online learning look better and more attractive from student's perspective

Ways	Variety of technology	Setting up and preparing the environment	Creative Tools	Communicate regularly	Talk less according to the slides
Mean	4.05	4.24	4.43	4.28	3.95
Median	4.00	4.00	5.00	4.50	4.00
Standard Deviation	0.892	0.726	0.742	0.842	1.077
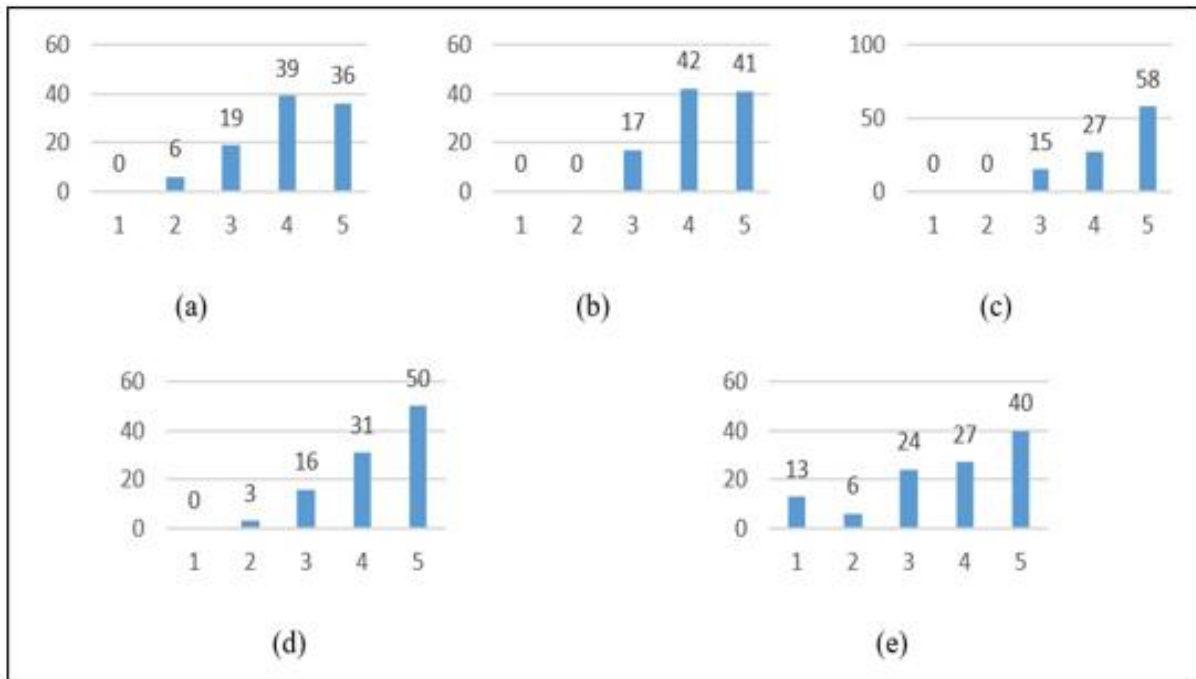
Fig. 5. Ways to make online learning look better and more attractive from student's perspective (a) Variety of technology, (b) Setting up and preparing the environment, (c) Creative Tools, (d) Communicate regularly, and (e) Talk less according to the slides

4. Discussions and Recommendations

After analysis of data that comes out using IBM SPSS, the result that particularly to find the frequency, the percentage, the mean and standard deviation for each question from each section were obtained. The objective of this research was achieved where the problem faced by student, student's interest, and the ways to make online learning look better and more attractive from a student's perspective was determined. Briefly here is that about 66% of the respondents stated they have adequate gadget requirements for online learning. Next 50% of respondents are satisfied with the online learning environment with a total mean of 3.81 and a standard deviation of 0.873.

This is because the factor that contributes the most to student dissatisfaction in online learning is the network problem where the highest respondent is 47 respondents who strongly agree with the statement. The mean is 4.16 and the standard deviation is 0.918. Network problems here mean weak or very weak connections during online classes. It will interfere with the smooth running of the google meet video during class because the connection is not strong enough. However, one of the factor that affecting student's dissatisfaction is from instructor's quality that including in terms of instructor knowledge, pedagogical knowledge, inclination, and experience [12]. This made students' perceptions of online learning change as 38 respondents agreed that they lacked interest and involvement during class with a total mean of 3.69 and a standard deviation of 0.963. Due to internet factors, they may miss important information and misunderstand lesson which can also result in a lack of interest and engagement during this online learning. About 79.8% from 407 respondents agree that the quality of discussion in online classes is low [9].

Therefore, the best way to make online learning look better and more interesting from the perspective of students is for lecturers to use some Creative Tools during the online learning process like Kahoot or Quizziz. There are 58 respondents strongly agreeing with this way in which the total mean for the statement is 4.43 and the standard deviation is 0.742. Apart from holding interesting classes using these creative tools, it can also benefit students who face network problem and it can

also make assessments attentively as they learn them on their own despite not with their classmates since they missed the classes. This way is one of the ten maxims that presented by Manipal Academy of Higher Education both from Melaka, Malaysia and Manipal, India that insturctors may try to make their classes more interesting with interactive activities such as simulations, videos, storytelling, gamified solution, case studies and problem-based learning [13]. Other ways to make online learning look interesting is the educational authorities should provide sufficient technical support to help student overcome the problems such as network problem and device problem [11].

Acknowledgement

References

[1] World Health Organization. "Archived: WHO Timeline - COVID-19. " WHO. Last modified April 27, 2020. Accessed November 16, 2021. https://www.who.int/news/item/27-04-2020-who-timeline---covid-19

[2] Ministry of Higher Education Malaysia. "KPT - Soalan Lazim (FAQ) Berkaitan Pengendalian Pengurusan Operasi Institusi Pendidikan Tinggi (IPT) Semasa Dan Pasca Perintah Kawalan Pergerakan (PKP). " MOHE. Last modified 2022. Accessed November 16, 2021. https://www.mohe.gov.my/hebahan/soalan-lazim/faq-berkaitan-pengendalian-pengurusan-operasi-ipt-semasa-dan-pasca-pkp-kpt?highlight=WzJd

[3] Alam, A. "Challenges and Possibilities of Online Education during Covid-19 " *Preprints*. 2020. https://doi.org/10.20944/preprints202006.0013.v1

[4] Leverage Edu. "Online Classes vs Offline Classes. "Leverage Edu. Last modified 2022. Accessed December 1, 2021. https://leverageedu.com/blog/online-classes-vs-offline-classes/

[5] Bouchikhi, Fatima. "THE ADVANTAGES AND DISADVANTAGES OF DISTANCE LEARNING." *RIMAK International Journal of Humanities and Social Sciences* 03, no. 06 (July 1, 2021): 262–69. https://doi.org/10.47832/2717-8293.6-3.24

[6] Firmansyah, Rizky, Dhika Maha Putri, Mochammad Galih S. Wicaksono, Sheila Febriani Putri, and Ahmad Arif Widianto. "The University students' perspectives on the advantages and disadvantages of online learning due to COVID-19." In *2nd Annual Management, Business and Economic Conference (AMBEC 2020)*, pp. 120-124. Atlantis Press, 2021.

[7] JawatanMalaysia.net. "[Rasmi] Bantuan Laptop dan Internet Percuma Untuk B40 2021." Last modified 2021. Accessed December 9, 2021. https://jawatanmalaysia.net/bantuan-laptop-dan-internet

[8] Helms, J. "Comparing Student Performance in Online and Face-to-Face Delivery Modalities. "*Online Learning* 18, no. 1 (2014). https://doi.org/10.24059/olj.v18i1.348

[9] Nambiar, D. "The Impact of Online Learning During COVID-19: Students' and Teachers' Perspective. " *International Journal of Indian Psychology* 8, no. 2 (2020): 783–93. https://doi.org/10.25215/0802.094

[10] Adnan, Muhammad, and Kainat Anwar. "Online Learning Amid the COVID-19 Pandemic: Students' Perspectives." *Online Submission* 2, no. 1 (2020): 45–51.

[11] Yan, L., A. Whitelock-Wainwright, Q. Guan, G. Wen, D. Gašević, and G. Chen. "Students' Experience of Online Learning During the COVID-19 Pandemic: A Province-Wide Survey Study. " *British Journal of Educational Technology* 52, no. 5 (2021): 2038–57. https://doi.org/10.1111/bjet.13102

[12] Gopal, R., V. Singh, and A. Aggarwal. "Impact of Online Classes on the Satisfaction and Performance of Students During the Pandemic Period of COVID-19. " *Education and Information Technologies* 26, no. 6 (2021): 6923–47. https://doi.org/10.1007/s10639-021-10523-1

[13] Eachempati, P., and K. Ramnarayan. "Ten Maxims for Out of Class Learning to Outclass the Academic Challenges of COVID-19. "*MedEdPublish* 9 (2020): 89. https://doi.org/10.15694/mep.2020.000089