

Students' Perceptions of Zoom Video Conferencing Platform During the Covid-19 Pandemic: A Case of Malaysian University

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ABSTRACT

Since the covid-19 pandemic has been a hazardous situation in the world, the physical class has been forced to shift towards online teaching and learning in universities worldwide. Zoom has been used extensively during the pandemic to facilitate students' learning process. This paper studied students' perceptions of Zoom during the pandemic as a platform for the learning process. A total of 100 local students from Malaysian universities participated in the study. From this analysis, students perceived Zoom as an Open and Distance Learning (ODL) platform during Covid-19. The finding shows that Zoom has its own weakness, such as limited participants and features for the users. Therefore, the method of online learning needs to be improved too. Both the study management and Zoom company could be improved in which the universities could manage limited face-to-face classes while the Zoom company could make more participants and longer the discussing time.

Keywords: Covid-19, Students' perception, Zoom, Malaysian University

INTRODUCTION

The acceleration of digitalization in the education landscape is one of the greatest impacts since the start of the Covid-19 outbreak. Now, the education sector is forced to shift to Open and Distance Learning (ODL) for Teaching & Learning (T&L) purposes (New Straits Times, 2020). According to Lincoln University College (nd.), ODL can be defined as the usage of telecommunication to provide or enhance learning. In Malaysia, various teleconferencing platforms are being used to cater to ODL for Higher Education Institutions and Zoom Cloud Meeting is one of them. According to The Verge (2020), Zoom has grown to 300 million meeting participants initially during the pandemic, and Consumer News and Business Channel (CNBC, 2020) reported that its daily download has increased 30 times. The daily usage of zoom approximately Business Insider (2020) reported the users of Zoom rose to 1900% since December 2020, and its market share has splurged 355% over the past years. Because of its flexibility, online learning has made T&L more efficient, but there is really no discussion between teachers and learners or among students when learning online (Palupi & Raharjo, 2020). Not only social distancing has been the new norm, synchronous and asynchronous teaching modes and online assignment submissions have become the new norm for higher education institutions. The synchronous class can be defined as instructors and students being present to engage in online learning concurrently. In this context, live sessions classes via Zoom are held synchronously. Asynchronous can be defined as a learning path that has been set up by instructors and learners can engage at their own pace. One of the asynchronous methods is video content being uploaded to YouTube by instructors and being watched by learners during leisure time.

Productivity of online learning

The degree of online learning and perception and satisfaction is vital as one of the key factors of education quality, hence this study is conducted (Lee & Mendlinger, 2011). Liu et al. (2009) reported that the Internet-enabled and tangible user interface played a big role in building students' positive perceptions toward online learning. Online learning is deemed to be more productive due to its convenience, flexibility, avoid commuting, lower total costs, and variety of programs and courses offered and students can keep up with their own pace to finish tasks given (Washington State University, 2019). Zoom has the highest users with 3.3 trillion annual meetings minutes as its functionality and simplicity of apps have made it easy for people to access Zoom (Dean, 2020). Usage of Zoom has increased 3 folds since the beginning of the pandemic (Iqbal, 2020; Chawla, 2020; Fauville et al., 2021). Higher institutions prefer Zoom as their platform to conduct online classes as with its easy interface, instructors can easily demonstrate their tasks to the students and its high-quality video and audio make it easy for students to engage in online learning (Kim, 2017). A survey on the effectiveness of online learning at National Taiwan University has been conducted and 4.48 percent out of 5 percent agree that it is effective (Sharma, 2021). Montgomery College (nd.) listed convenient, flexible, and brings education to your home as a part of the benefits of online learning but allow us to not deny that the long hours of looking into the screen for online learning has caused fatigue among students which have been supported by news from The Star (2021) which may cause a decline in students' productivity. The Star (2020) has conducted an online survey among

Malaysian students regarding their anxiety level during online learning, 30% of them are experiencing varying stages of anxiety due to online learning. As reported by Applebaum (2020), the adverse effect of online learning is draining and exhausting. As online learning affects fatigue, relentless mind, and unfocused eyes, Applebaum (2020) suggested that students be given fewer tasks to keep their productivity at par. Zoom Fatigue and burnout have been recognized as diagnosable conditions by the World Health Organisation as its international classification of disease (IDC-11) (The Asean Post, 2021). The rise of the use of Zoom has resulted in Zoom Fatigue among students and other people engaging from home and it's been reported that physical and psychological tiredness caused by Zoom Fatigue has led students to lack motivation to finish their tasks and feel unengaged in their classes (Atwater & Sandhu, 2021). As reported by The Statistica (2021), average Malaysians spend 5 hours online.

As everyone can see, online learning has its advantages and disadvantages, and a lot of factors are considered to see how effective online learning is. In this study, the researchers examine the students' perception of the Zoom platform and whether it improves or declines overall productivities throughout online learning. The purpose of this study is for the researchers to present the implementation of e-learning in the Master of Medical Physics program at the University of Malaya during a partial lockdown caused by the Covid-19 pandemic from March to June 2020. The method used by the researchers is Teaching and Learning T&L activities which are carried out virtually through e-learning platforms. After 15 weeks, the students' experiences and feedback were evaluated. The result shows that, while students preferred face-to-face, physical instruction, the researchers discovered that they were able to adapt to the new norm of e-learning. More than 60% of the students concurred.

LITERATURE REVIEW

During The Covid-19 Pandemic, Learners' Preferences And Perceptions Of The Online Education System In India

Because of the Covid-19 pandemic, educational institutes around the world have closed and put academic calendars in jeopardy. In that case, as Sugandini, Istanto, Garaika, Arundati, and Purnama (2021) state that most students have not adapted well to online learning. They also state that in the early days of online learning, many students, lecturers, and the higher education community were faced with conditions of high uncertainty. Therefore, the educators need to choose the teaching method that suits the students' styles and latest trends allowing them to have the desire to learn and increase their satisfaction (Kee et al., 2021). The majority of the scholars preferred to learn online using smartphones. Using content analysis, the researchers discovered that students prefer recorded classes with quizzes at the end of each class to improve learning effectiveness. However, because many courses are practical, switching completely to online mode may not be feasible. If you want to plan a hybrid mode, the insights from this text will be useful in designing the curriculum for the new normal.

Online Learning During Covid-19: Students' Perception of Multimedia Quality

The Covid-19 pandemic has forced educational institutes worldwide to resort to an "online-only" mode of teaching delivery. As Covid-19 breakdown, online learning is

the only way for students to continue their learning during the pandemic (Das et al., 2021). Therefore, the quality of multimedia provided by various applications is critical to their success because it determines not whether students will use them for online learning. As a result, three widely used applications (Zoom, Microsoft Teams, and Cisco Webex) are used in this work to evaluate multimedia quality objectively.

Online teaching-learning in higher education during the lockdown period of the Covid-19 pandemic

During the global lockdown of the novel coronavirus disease 2019 (Covid-19), the entire educational system from elementary to higher levels of education has collapsed. This study could be a depiction of Mizoram University's online teaching-learning modes used for the teaching-learning process and subsequent semester examinations. The purpose of this paper is to address the desired essentials of online teaching-learning in education during the Covid-19 pandemic, as well as how existing educational institution resources effectively transform formal education into online education with the assistance of virtual classes and other pivotal online tools in this ever-changing educational landscape. The paper examines teachers' and students' perceptions of online teaching-learning modes, as well as the implementation process of online teaching-learning modes, using both quantitative and qualitative approaches. The goal of this paper is to provide a comprehensive picture of ongoing online teaching-learning activities during the lockdown period, as well as to establish a link between the change management process and the online teaching-learning process in the education system during the Covid-19 outbreak.

During the Coronavirus, a review of the literature on students' perceptions of e-learning for ESL/EFL in Educational institutions was conducted

On January 30, 2020, the World Health Organization (WHO, 2020) declared the Coronavirus (Covid-19) a worldwide pandemic. As a precautionary measure, many governments across the world such as Abu Dhabi have closed educational institutions and places of work. In response to this close-up, the researchers set out to investigate Saudi university students' perceptions of e-learning for ESL/EFL during the Coronavirus outbreak. As a result, this survey concluded on four major research showed to be relevant to its emphasis between January 2020 and April 2020. (Abu-Ayfah, 2020; Ahmad, 2020; Alshehri & Cumming, 2020; Hakami, 2020). The review's objectives were to report on the following topics: 1) students' perception of ESL/EFL e-learning, 2) positive effects of ESL/EFL e-learning, and 3) disadvantages of ESL/EFL e-learning in Educational institutes. The findings revealed positive attitudes among Saudi college students toward e-learning for ESL/EFL, as well as numerous benefits and few drawbacks.

RESEARCH METHOD

There are a few methods of data collection such as interviews, questionnaires and surveys, observations, documents and records, focus groups, and oral histories. The method used is a questionnaire and survey method as the researchers consider them to be independent data collection tools that are administered to the subjects of the sample either by mail, telephone, or online. Using a web survey of 307 students, the researchers specialized in understanding Agricultural Students'

perceptions and preferences toward online learning during this study. According to the findings, the majority of respondents (70 percent) can choose online classes to manage the curriculum during the pandemic. The structure and formulation of data collection plans are precise and the questionnaire can reach any corner of the world if the medium allows it. While the downside of questionnaires is that without human intervention, they can be quite passive and lose some of the finer nuances. Therefore, the answers leave open to be interpreted. As the researchers shall see later, interviews and focus group discussions are crucial in overcoming this lack of questionnaires. The response rates can be very low. As questionnaires can be well designed by choosing the right question types to optimize response rates, very little can be done to encourage respondents without speaking to them directly.

In the course of this research, the researchers had an aim to examine the students' perceptions of the Zoom Video Conferencing Platform during the Covid-19 Pandemic. The researchers wanted to understand their opinions on the application as researchers find the topic quite interesting as a student. For research purposes, the researchers set up an online survey via Google Form to gather information and opinion from targeted audiences. The questionnaire was deemed as the most appropriate method to gather information accurately by the researchers. The rationale for using the questionnaire is to get answers or views that are accurate and easily obtained. Therefore, the questionnaire was distributed to 100 students.

The questionnaires were divided into four sections where for the first section, each respondent is required to fill out their demographic information which is their gender, age, type of university, education level, and whether they are an on-campus student or studying from home. The second part of the questionnaire is the student's impression of the Zoom Company video conferencing platform which focused on the experiences, friendliness of the Zoom Company video conferencing platform, how easy is the application to use? how frequently do they use the Zoom Company video conferencing platform, how are the obstacle faced? how do they know the platform? What are the things that they know about the platform?, and if there are any video conference platforms that in their opinion are better than Zoom Video Conferencing Platform. For the second section, respondents will choose their opinion based on choices given or required to fill in the blank if necessary to give their opinion of students' impression while using the Zoom Company video conferencing platform. The next part is the student's perception of the usage of the application during online and distance learning. The last section of the questionnaire was the suggestion and comments that the respondents have for the application. The last section needs the respondent to give suggestions and comments on using the Zoom Company video conferencing platform if online distance learning is continuing. The primary purpose is to know the respondent's opinion about students' perceptions of the Zoom Video Conferencing Platform during the Covid-19 Pandemic.

RESULTS

Table 1. Summary of respondents' demographic (N = 100)

Respondents	Percentage (%)
Gender	

Female	53
Male	47
Age	
15 years old and below	6
16-24 years old	60
25-34 years old	18
35-44 years old	9
45 years old and above	7
Employment Status	
Student	47
Part-time	13
Full-time	29
Self-employed	11
Monthly Income	
No income	39
Below RM1,000	17
RM1,000-RM3,000	24
RM3,001-RM5,000	12
RM5,000 and above	8

Table 1 is a summary of respondents' demography which is filled up by 100 Malaysian university students. There are 69 female and 31 male students that filled up this survey. From the age range, it can be seen that 60% of the students are in the range of 21-24 years old. The rest were 26% from 18-20 years old and 14% 25-30 years old. About 7% of students are a minority from private universities. The level of education of 68% of the respondents is currently bachelor's degrees. The students mostly stay at home during the open and distance learning.

Table 2. Summary of respondents' impression while using Zoom application (N = 75)

Respondents	Percentage (%)
Do you have any experience with Zoom? (N=100)	
Yes	75
No	25
How would you rate the friendliness of the Zoom?	
0%-20%	0
21%-40%	5
41%-60%	27
61%-80%	47
81%-100%	21
How easy is the usage of Zoom?	
Easy	60
Moderate	39
Difficult	1
Do you encounter obstacles in interacting with Zoom?	
Yes	37
No	63

Obstacles in interacting with Zoom	
Limited participants	57
Internet connection problem	21
Hard to control	14
Sound system	7
How frequently do you use Zoom in one day?	
No more than one hour	25
No more than four hour	63
No more than eight hour	11
Approximately 24 hours	1
How did you get to know about Zoom?	
Advertisement on social media	15
Class Lecture	89
Meeting Event	63
Friend	27
Webinar	4
What is your satisfaction when using Zoom?	
I am satisfied with the condition of Zoom	41
I am satisfied with the IT services quality	23
I am satisfied with the Zoom	36
Is there another better video conferencing software do you prefer instead of Zoom?	
Yes	40
No	37
Maybe	23

Table 2 is the summary of students' impressions while using the Zoom application. Starting from this section, there are only 75% of respondents that continue to fill up this survey as the 25% of respondents do not have any experience in using the Zoom application. From the survey, it can be seen that the user platform is easy for the user to use this Zoom application. There were 28 respondents stating they encounter obstacles in interacting with the Zoom. Zoom meetings are only limited to 100 participants in a room, so it is quite a problem for the huge group that wanted to have a meeting with the software. The reason for the internet connection problem is 21% of random bugs that make the Zoom lagging and keep crashing even with full internet coverage. The Zoom sound system setting was the third obstacle to the respondents whose microphone is automatically unmuted. They also rated that video conferencing is hard to control. For the frequency of the respondents using the Zoom, there are only 9 respondents that used this software more than 4 hours a day. Mostly, Zoom gets knowledge from students that attend their online lectures. Satisfaction with the condition of the zoom application got the highest rate which is 41%. The IT services are quite poor for the respondents. Besides the Zoom application, the respondents stated that they also used the Cisco WebEx, Google Meet, and Microsoft Team.

Table 3. Summary of Respondents' Perception on the usage of Zoom during Open and Distance Learning (ODL)

	Percentage%
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	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I think the use of Zoom can help me to understand learning material better.	3	8	35	45	9
I think the use of Zoom is strategic for online learning, especially for discussion and question	5	4	24	52	15
I think the use of Zoom is strategic for online learning, especially for the synchronous class.	4	3	24	59	11
I think the use of Zoom in the online learning process is saving time, energy, and low cost	1	5	25	52	16
I think the use of Zoom in online learning facilitates the interaction and communication between lecturer and students far better.	8	7	24	45	16
I think the use of Zoom is very difficult, mainly by smartphone	3	8	23	45	21
I think the use of Zoom is very difficult due to the low-speed internet connection	0	4	24	49	23
I think the use of Zoom is very difficult because of the low economy.	0	11	29	43	17
I think the use of Zoom is affecting my daily productivity	4	9	31	37	19
I think the use of Zoom on long hours is mentally tiring	1	4	20	51	24
I think the use of Zoom on long hours is physically tiring	1	7	24	45	23
I think the use of Zoom on long hours demotivate me to study	1	8	27	41	23

Table 3 above presents the summary of respondents' perception of the usage of Zoom during Open and Distance Learning (ODL). 54% agreed while 11% disagreed that the use of Zoom can help to understand learning material better. Thus, it can be seen that the student was more positive and knew how to learn information literacy skills using the internet. Next, 67% of respondents agreed that the use of Zoom is strategic for online learning, especially for discussion and questions. Thus, students were able to participate in discussions and forums in an online mode. However, 9% of them disagree.

Other than that, 70% of respondents agreed that the use of Zoom is strategic for online learning, especially for the synchronous class. 7% of respondents disagreed because they could not keep themselves up-to-date with the teaching in online mode. 66% of respondents believed that the use of Zoom is very difficult, mainly

by smartphone, while 11% disagreed. This is because 50 respondents are using smartphones during Zoom rather than a laptop.

Next, the use of Zoom is very difficult due to the low-speed internet connection and low economics. 60% and 72% of respondents agreed that they had a problem with the internet connection while using Zoom. Moreover, most respondents believe that the use of Zoom for a long time will cause mentally tiring, physically exhausting and demotivate them to learn compared to physical classes which are 75%, 68%, and 64% of respondents respectively.

Table 4. Summary of Respondents' Suggestions and Comments on the usage of Zoom during Open and Distance Learning (ODL)

Respondents	Percentage (%)
Do you agree if Open and Distance Learning (ODL) is going to continue in the future?	
Strongly disagree	25
Disagree	0
Neutral	25
Agree	43
Strongly agree	7
Student suggestion if Open and Distance Learning (ODL) continue	
Data connection of internet	13
Teaching Styles	57
Using other video conferencing	3
No suggestion	27
Any suggestions to improve on the Zoom application?	
Improve optimization of Zoom application	4
Improve user friendly of Zoom application	55
Improve the security of the Zoom application	3
No suggestion	39

In the table above, the researchers found that 50% of the students agreed that Open and Distance Learning (ODL) is going to continue in the future. Thus, the researchers can conclude that students really like to continue Open and Distance Learning (ODL) in the future. This is because the student has the knowledge and good attitude in using online platforms to learn.

Next, 57% of respondents suggested that, improve teaching styles if Open and Distance Learning (ODL) continues. Based on a list of suggestions from Google Forms, 30 of the respondents said that they want to reduce their workload like assignments and tests. Besides, 13% of respondents want their teaching period to be reconsidered, this means that they cannot focus on the screen for more than 2-3 hours per subject. While 13% of respondents agreed that the data connection of the internet needs to be considered if Open and Distance Learning (ODL) is continuing. This is because 10 respondents have a problem with connection in online mode. About 27% of respondents do not give any suggestions.

Moreover, 55% of respondents suggest that to improve the user-friendly Zoom application. This is because some of them said that they have a problem using the Zoom application such as lagging or sometimes the mic automatically unmuting. Besides, some of them asked for unlimited participation. This is easy for them to make a big event or for discussion in the larger group. Next, 4% of respondents agreed to improve the optimization Zoom application. This is because based on the reasons in google forms, 3 of the respondents have problems with data connection when connected with the Zoom application. Lastly, 3% of respondents suggest improving the security Zoom application. This is to prevent an outsider from calling and knowing the details easily. However, 39% do not give any suggestions.

DISCUSSION

The COVID-19 pandemic resulted in tremendous university facility closures, affecting tens of millions of students around the world. The abrupt conversion of instructional practices to digital methods was done to keep degree education running while ignoring the crowd and the prospective spread of infection. On March 17, 2020, the current study has documented and compared student perspectives on student-centered active learning delivered via complete distance education to classroom trying to learn in the undergrad degree dentistry study course. During the Covid-19 pandemic, this was the first analysis of student perceptions of learning methods. Some decided on positive attitudes and some others stood in the opposition. About 62.7% of respondents agreed that the use of Zoom is positive. The quantitative findings are confirmed and clarified by qualitative findings where the results show that they are correlated. The main problem with the use of Zoom is a bad internet connection and limited participation.

The students rated that the use of Zoom can help them to understand very well. They also agreed that virtual class via Zoom is strategic for discussion, question-answer activity, and task submission. It is in accordance with the Cakrawati (2017) and Zamari, et.al (2011, pp. 612) online system that provides a lot of potential and plays a significant role in language learning. The Internet is accessible for both lecturers and learners.

Online sources enable students to access documents and various other learning materials to support language acquisition. Moreover, the use of Zoom is also rated for saving money, energy, and cost. They only need money for internet data. In addition, the use of Zoom can help them to improve communication skills and can increase their understanding. However, there are some disadvantages to the use of Zoom. The dominant problems to apply them are a bad internet connection, low economy class, and teaching ways problems.

Based on the finding result, the students' feedback could give ideas to Zoom management for improving their application. The improvements that can be concluded by the results one of them are that the Zoom application should be more friendly like the other video conferencing application, which has more participants to get in one meeting room.

CONCLUSIONS

This research study can be concluded that the virtual class for university students informed of Zoom was considered positive by the learners. Although the limited participants and slow-speed internet connection were the problems to use, they were also rated as effective and efficient in terms of time, place, and expense. Moreover, learners agreed that this online platform can help them to improve understanding skills and to reduce shyness in virtual class interaction. Regarding the findings of this research study, the researcher suggests some recommendations. Regarding the problem of the teaching methods, the campus, together with the government, needs to consider the student workload like assignments and tests. Moreover, they need to consider reducing the time of teaching in order to ensure students' health. Regarding the low economy class, the students must be helped by providing study aids in the form of internet data. Zoom could improve their quality by fixing the sound setting which is speaker and microphone function. The company needs to consider the user's recommendation on unlimited participation and time limit for a meeting session.

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