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EMBRACING ONLINE TEACHING THROUGH FACEBOOK LIVE

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ABSTRACT

Due to the worldwide coronavirus outbreak that began in 2019, the education sector has been severely affected. Learning institutions are closed to reduce the spread of the virus. Therefore, many institutions have been relying on online platforms to perform classes. Educators are forced to conjure up new ideas and strategies of teaching to ensure that the students obtain the knowledge they deserve. In this study, the aim is to explore various online teaching methods and to choose the most suitable one, which is Facebook Live. This study involves 55 first year undergraduate students from Universiti Teknologi Malaysia (UTM) who took Linear Algebra course. An online survey using Google Form was given to the students for their feedback on the efficiency of this teaching method. The data analysis shows that the majority were satisfied with the method. Hence, we believe that Facebook Live is considered as an efficient way of delivering lessons.

Keywords: COVID-19, Virtual Classroom, Facebook Live

INTRODUCTION

In the past decade, various efforts have been made by the government as well as the educators to improve the quality of the students' learning and interaction. The idea of active learning aims to engage students during the learning sessions by being actively involved and reflecting on their works instead of watching and taking notes (Johnson & Johnson, 2008). There are many activities that can be done to implement active learning such as debates, presentations, and games. Traditionally, active learning is done physically. However, it might prove to be interesting to the students to involve the use of virtual applications such as Facebook and YouTube to hone students' creativity.

Recently, COVID-19 has resulted in a decline in effectiveness in performing daily activities that involves physical contact, including lectures and other various learning sessions. UNESCO recently stated that half of the student population in the world are forced to be away from school because of this pandemic (Giannini, 2020). Due to campus closures, academic institutions in Malaysia have turned to online systems to continue the education process despite not being sufficiently ready to cope with the entire process (Nassr, 2020).

The major concerns are for the students who are influenced by inadequate infrastructure, finance and psychological aspects. The most common problems these entail include poor internet connection and an inconducive learning environment at home.

Aside from that, for educators, online teaching must go beyond simply focusing on delivering the lessons but must also consider how a lesson is delivered and requires feedback from the students. This is because feedback from students shows how they feel, and it influences the teaching method to a large extent (Floden, 2016). With online teaching, various aspects need to be accounted for such as time differences, internet access, and learning environment. On top of that, the most accessible platform should be adopted to ensure an ease of access and lower bar of entry for the students to join the lessons. Online conference calls, live streams and recorded lessons have long existed; thus, a variety of options can be taken into consideration. Online meeting platforms which are commonly used in educational institutions include Zoom, Google Meet, BigBlueButton, Skype and many more.

In this study, Facebook Live is used as the platform of online teaching. One of the main reasons for choosing Facebook Live is that it is a free platform, easy to access (Johnson et al., 2018) and can accommodate much slower internet connections for the students compared to other virtual meeting platforms such as Zoom and Webex. Besides that, the Facebook Live recording can later be saved as a video for future reference. Additionally, real-time comments and replies from students are enabled throughout the Facebook Live session. The main aspects as stated are examined and explored by conducting surveys at the beginning and at the end of the semester to collect the data from the respondents, who are 55 first year undergraduate students in UTM who took a Linear Algebra course.

In the next section, the methodology used in this study is presented.

METHODOLOGY

The sample of this study consists of 55 first year UTM undergraduate students, enrolled under Bachelor of Science (Mathematics) programme, who were registered in Linear Algebra course. The respondents are made up of 18 (33%) males and 37 (77%) females. In this study, Facebook Live via a private event is chosen as the platform to conduct online teaching.

Before using Facebook Live as the method of the virtual classroom, a survey was created and distributed to the students to collect their details and also to enquire on their internet connection speed at their current location. All students were staying at their hometown so the internet data would be varying from places to places. During the online teaching, the lecturer used the built-in features in Facebook Live such as comments and reaction buttons to interact with the students. In addition, for cyber security purposes, the Facebook Live was broadcasted in a private Facebook event to ensure that only registered students from the class were participating. This private event also helps in recording the students' attendance easily as the names of all viewers can be seen at the Live video.

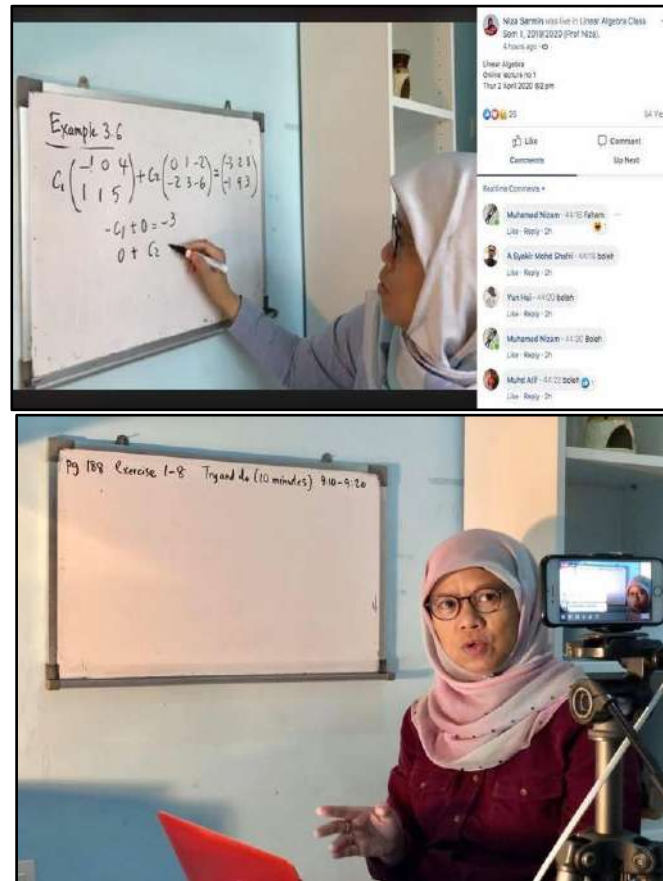


Figure 1. The interactions and use of features in Facebook Live during the online class.

At the end of each session, a feedback questionnaire using Google Form was given to the students to allow them to share and report their opinions on the effectiveness of online teaching through this platform.

In the next section, the results from the survey are discussed and analysed.

MAIN RESULTS

As mentioned in the previous section, a survey was given to all students from the Linear Algebra class after the class to observe their opinions on using Facebook Live as the virtual classroom. The questions asked in the survey include the students' surroundings condition (availability of laptop or PC at home, the size of internet data and internet speed) as well as the students' thoughts on the online class conducted. Each subsection below discusses each aspect that is included in the survey.

Gadget Used for The Online Class

The results from the survey showed that 31% of students used their smartphone during the sessions since not all students have a personal computer (PC) or laptop at home. Due to this, the online learning process can be quite difficult for these students since by using a smartphone, the writings on the whiteboard might not be seen clearly due to the limited screen size, compared to the other students who are using their laptop or PC.

Besides that, other features of virtual platforms such as chat and comments on smartphone applications are not as handy as the desktop applications. These reasons might affect the overall online learning experience of the students themselves. Therefore, Facebook Live is the best option to overcome this problem since using Zoom/Webex or others and sharing screen is a setback for limited visuals. On the other hand, by using Facebook Live, the whiteboard used can still be seen clearly because of its high resolution, even with a small screen.

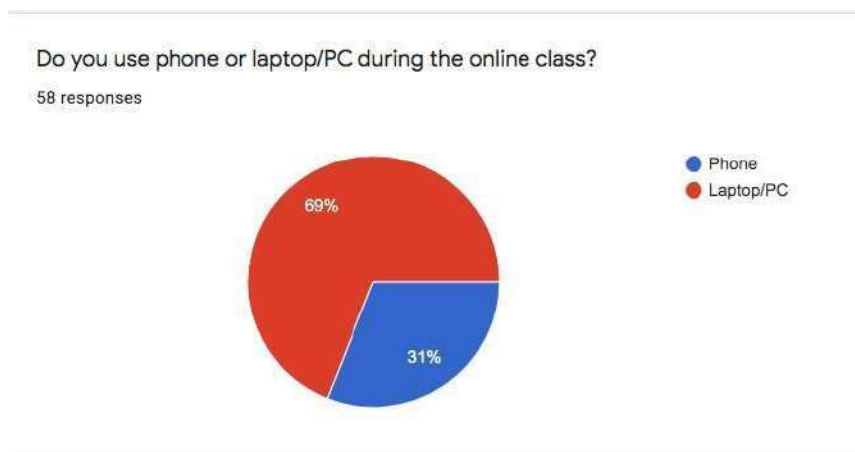


Figure 2. Gadget used by students for the online class.

Internet Speed and Data Availability

In the survey, the students were also asked to test their internet speed at a freely available website: <https://fast.com/>. The results shown that 14% of students are in the low internet speed category (less than 500Kbps), another 14% are in the middle internet speed category (501Kbps to 1Mbps), while the rest of the students had decent to excellent internet connections (greater than 1Mbps). For the data availability, the majority of the students are using unlimited internet data or wifi. However, there are several students who only have one to two gigabytes (1 to 2 GB) of data weekly. Since the students need to attend not only Linear Algebra class, but also other classes within the week, hence a virtual application with the least data usage needs to be considered. With the help of this information, thus Facebook Live is the best option since for Facebook Live, only an average of 7 to 9mbps data is needed (Guzman, 2017).

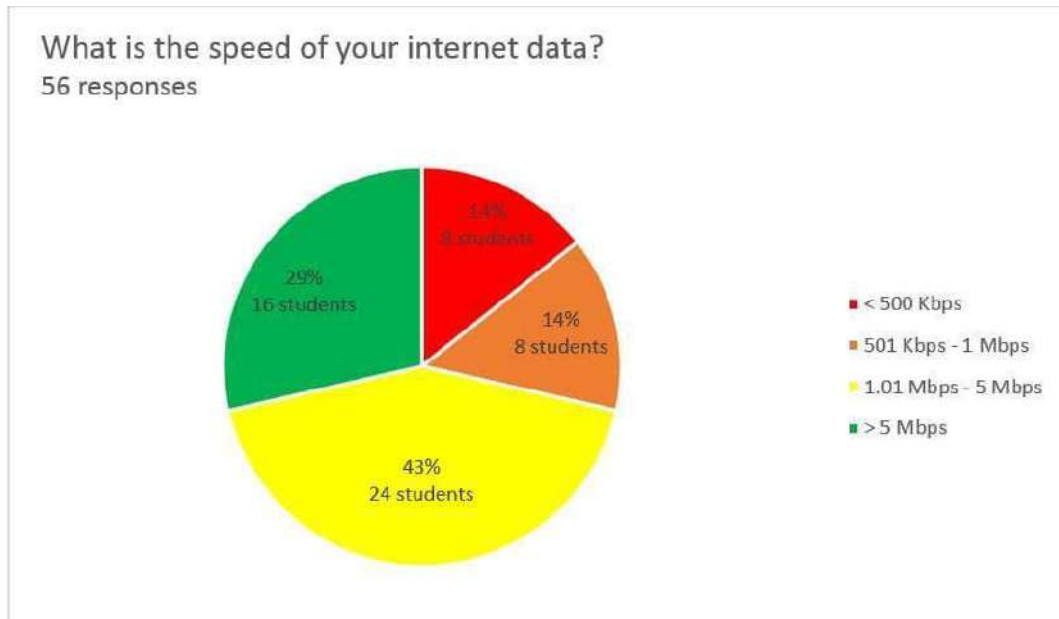


Figure 3. The speed of students' internet data.

Online Platform Preferences (Zoom, Google Meet, BigBlueButton, Facebook, Asynchronized Learning)

There are various virtual applications that are accessible among students and educators as mediums to carry out the online learning activities. However, there are few matters that affect the effectiveness of using the platforms such as internet speed and video resolutions. Since the students were also taking online courses other than Linear Algebra, they have used various online learning platforms as different classes might be using different platforms. Hence, they were asked to rank several platforms which are Zoom, Google Meet, BigBlueButton, Facebook and asynchronized learning such as youtube and e-learning, based on their preferences for online learning.

From the survey, 50 out of 55 students have chosen Facebook Live as their first choice of learning platform for Linear Algebra class compared to other virtual applications. This is because Facebook is much familiar to be used by the students as well as the application is using the least internet data. Meanwhile, Zoom, Webex and Google Meet came in second, third and fourth respectively. Students are familiar with these three applications since they are used in other courses. In addition, asynchronized learning through Youtube and e-learning is ranked fifth in the survey. Finally, BigBlueButton is the least preferred choice since the application is quite unfamiliar to be used by the students as well as the lecturer.

Opinion of Facebook Live as Virtual Classroom

The students were also asked to give their opinions on the usage of Facebook Live as an online teaching and learning method. The majority agreed that Facebook Live is indeed suitable. This is because they can always rewatch the recording if they had problems with internet connection during the lessons.

Since Facebook Live can still accommodate poor internet connection, the absence of persisting lag and a consistently clear image meant that the students were able to view the lecturer's notes and hear the lecturer clearly. A few students also stated that by using Facebook Live, they are not being distracted by other participants who might forget to mute their microphones. Moreover, Facebook Live does not consume a significant amount of mobile data.

There are two out of 55 students who disagreed with this statement. Both students thought that Facebook Live's drawback was that it was difficult to communicate and interact with the lecturer since they can only use the chat features to ask questions. The other reason for choosing 'No' to the question is because they would prefer a face to face class.

Few comments from the students regarding their opinions on Facebook Live are stated as below.

"Facebook Live is suitable compared to BigBlueButton and also Zoom because those apps need more data compared to Facebook live. I would suggest Prof to raise your voice a little bit, so that I can hear clearly."

"Yes, I agree Facebook Live is suitable to be conducted for now, but Facebook has restriction of commenting during livestream, cannot comment too many times, Facebook will suspend your rights to comment temporarily."

"I can at least view the saved video and watch it repeatedly if I miss the timing of the class and when the line of the internet is not so good."

"I can hear your voice clearly (without any distraction from my friends' voices) and focus on you only."

In short, 96% of the students agreed that Facebook Live is a suitable method for online teaching. They enjoyed learning through this virtual method, which is one of the alternatives to face-to-face classes. Therefore, Facebook Live should be considered seriously as one of the most suitable teaching methods for universities.

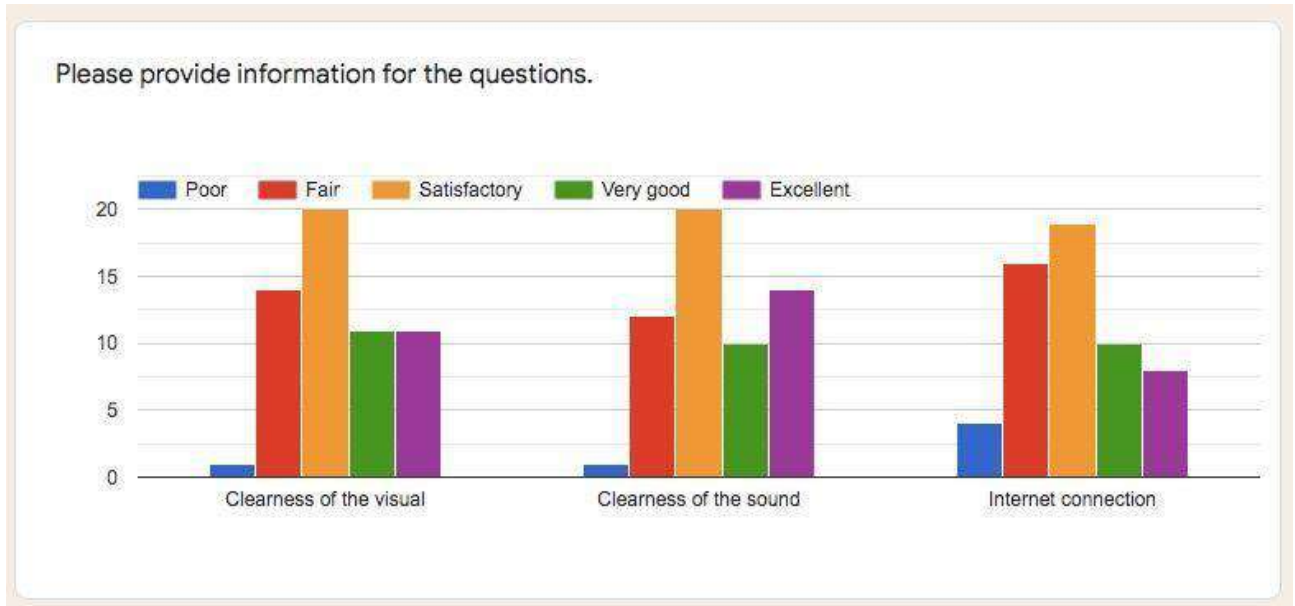


Figure 4. Students' opinion on the usage of Facebook Live.

In the next section, some limitations of using Facebook Live as an online platform for learning are discussed.

FACEBOOK LIVE LIMITATIONS

Despite the benefits of using Facebook Live as a platform for online classes, this platform has its own limitations and disadvantages to be a part of active online learning. One of the limitations of Facebook Live is that the Facebook application does not allow the users to share their screens. Therefore, participants can only see what is being shared or discussed by the creator of the Facebook Live event. In the Linear Algebra course, a whiteboard is used for writings. Hence, this feature is not heavily needed. Besides that, in the Facebook Live event, the only way to interact with the lecturer who is presenting is only by using the reaction buttons and chat features. The students and lecturers can only share and attach PDF, Powerpoint or other notes in the chat box. Hence, both students and lecturer can only interact through the chat box, which takes quite some time compared to directly asking.

The other drawbacks of Facebook Live is that it can open up the possibility for fraud and virus attacks. There are many cases where Facebook users have fallen prey to the lure of seemingly legitimate and genuine online scams, resulting in information or identity theft (Pappas, 2015). Particularly in this Linear Algebra class, a private group was created for the lecturer and students to reduce such risks of virus attacks.

CONCLUSION

In embracing virtual applications as one of the mediums for teaching and learning, it is important to create an effective and engaging environment for the students by keeping student-lecturer conversation open. Though physical classes are suspended for the time being, active learning should still be maintained. Afterwards, the experience and feedback from students are needed so that improvements can be made to achieve a higher quality of education. Through this study, students' opinions were thoroughly considered to decide on the efficiency of Facebook Live as an online learning method. Even though there are few drawbacks of Facebook Live as the students cannot share screen and can only attach documents in the chat box, Facebook Live is the best virtual application considering it has lower usage of internet data. Therefore, it is concluded that Facebook Live is indeed an efficient way of online teaching.

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