Barriers in Technology Integration: EFL Lecturers and Students' Experience in English Learning and Instruction amidst Covid-19 Pandemic Disruption

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Abstrak

Sejak merebaknya Pandemi Covid-19 seluruh sekolah dan universitas di Indonesia diliburkan dan kegiatan belajar-mengajar dialihkan ke mode belajar online. Tren belajar dari rumah mulai mendominasi pengajaran di kelas di semua jenjang pendidikan. Di perguruan tinggi, fenomena ini tentu mempengaruhi semangat dosen dan mahasiswa dalam kegiatan belajar mengajar karena mereka perlu melakukan adaptasi yang diperlukan dalam banyak aspek termasuk penggunaan teknologi untuk mendukung pembelajaran. Pembelajaran online membutuhkan teknologi untuk menerapkan alat atau media digital. Penelitian ini bertujuan untuk mengetahui hambatan yang dihadapi dosen dan mahasiswa dalam mengintegrasikan teknologi dalam pengajaran di tengah disrupsi Pandemi Covid-19. Penelitian ini menggunakan metode penelitian kualitatif dengan desain studi kasus. Partisipan penelitian ini adalah dosen dan mahasiswa EFL salah satu universitas negeri. Dua dosen EFL dan sepuluh mahasiswa dari dua kelas yang berbeda ambil bagian sebagai peserta penelitian. Pengumpulan data dilakukan dengan observasi dan wawancara dengan partisipan di salah satu perguruan tinggi negeri di Palembang. Analisis data menggunakan analisis tematik. Temuan penelitian menunjukkan bahwa ada dua hambatan yang dihadapi dosen dan mahasiswa dalam mengintegrasikan teknologi dalam pembelajaran online seperti hambatan ekstrinsik dan hambatan intrinsik. Pada hambatan ekstrinsik terdapat hambatan sumber daya dan pada hambatan intrinsik terdapat hambatan peningkatan pengetahuan dan keterampilan siswa dalam pembelajaran online, hambatan untuk mengontrol sikap siswa saat pembelajaran online dan hambatan penilaian dalam integrasi teknologi.

Kata kunci: Tantangan, Pandemi Covid-19, Integrasi Teknologi.

Abstract

Since Covid-19 Pandemic outbreak all schools and universities in Indonesia were closed and teaching-learning activities were shifted to online learning mode. Learning from home trend started to dominate classroom instruction in all level of education. In university, this phenomenon certainly affected lecturers and students' enthusiasm in teaching-learning activities since they need to make necessary adaptations in many aspects including the use of technology to support learning. Online learning requires technology to apply the digital tools or media. This study was aimed at finding out the barriers that lecturers and students faced in integrating the technology in teaching during the midst of Covid-19 Pandemic disruption. This study used qualitative research method in a case study design. The data were collected using observation and interview with the participants in one of public university. The participants of this study were EFL lecturers and students of one public university. Two EFL lecturers and ten students from two different classes took part as participants of the study. The data were analyzed using thematic analysis. The findings of the study showed that there were two barriers faced by the lecturers and students in integrating the technology in online learning such as extrinsic barriers and intrinsic barriers. In extrinsic barriers there was resources barrier and in intrinsic barriers there were improve the students' knowledge and skills in online learning barrier, the barrier to control the student's attitude while online learning and the assessment barrier in integration the technology.

Keywords: Barrier, Covid-19 Pandemic, Technology Integration.

1. INTRODUCTION

Due to the outbreak of Covid-19 pandemic at the end of 2019 and its massive spread all over the world at the beginning of 2020, Indonesian government has issued some regulations. Social distancing, wearing mask, washing hands, and avoiding crowd are some of the regulations taken following the virus spread (Dewanti et al., 2021; Suryaman et al., 2020; Yang et al., 2020). These regulations were meant to limit the spread of the virus to the

society. It goes without saying that such regulations have brought some goods but it cannot be denied that they also caused another difficulty. Social distancing, for instance, has limit people's movement and restrict their activities in many aspects (Gustiani, 2020; Schultz & DeMers, 2020; Susanty, 2020). In education sector, it was not possible to carry out face-to-face learning in the school classroom as usual due to the school closure all over the country (Agarwal & Kauhshik, J., 2020; Iglesias-Pradas et al., 2021; Jena, 2020). As a result, teaching and learning activities were started to carry out online from home. In online learning, people use internet and some other important technologies to deliver the learning materials, assignment, and assessment for educational purposes (Fry, 2001; Staley & Freeman, 2017; Tuuri & Koskela, 2020). In addition, during online teaching and learning, students and lecturers require using any kinds of digital tools and resources to help them to implement new approaches in online class (Konig et al., 2020; Merino-munive et al., 2021; Sahal et al., 2020). In other words, to make online learning possible to carry out, technology is urgently required. During online learning digital tools were important as media to communicate among the students and lecturers (Mu'awanah et al., 2021; Schmier, 2021; Suwartono & Aniuranti, 2019). There were important aspects that could complete the online learning and instruction. The ways lecturers used to facilitate students in online learning and instruction class were the important aspects (Ahmadi, M., 2018; Alchamdani et al., 2020; Ritter, 2012). Technology provides unlimited resources for language learning and instruction. Technology helps both teachers and students to facilitate in language learning. Related to this, previous study stated that technology integration means the way lecturer used technology to make the process learning and instruction in classroom more effective (Hennessy et al., 2005; Pourhosein & Sabouri, 2016). Technology integration increases the education environment and for those lecturers would integrate the technology, this was one way to increase the students' skills and student's learning through in school or at home (Ammade et al., 2018; Dockstader, 1999; Kawinkoonlasate, 2019). In order to support online learning continues in this pandemic era, integrating the technology by digital tools such a virtual meeting or using the application was one of the ways to raising the students' skill.

Unfortunately, migrating teaching and learning process from face to face to online method was certainly not easy and simple to do. They need to make some adaptations before they are able to use technology in online learning (Day et al., 2021; Yuzulia, 2021). They might come across barriers in adapting or integrating technology in online teaching and learning. In anticipating such barriers in integrating technology in online learning, necessary efforts need to be taken (Leli Efriana, 2021; Safrizal et al., 2021). In Indonesia, most of lecturers and students were not ready with this condition. Most lecturers did not know how to teach in online learning because the method was different from offline learning (Junus et al., 2021; Lavania & Mohamad Nor, 2021). Some lecturers and students were not ready to use the technology that supports learning (Spoel, L, V & Al., 2020; Valverde-Berrocoso et al., 2021). They are likely to encounter barriers when confront with the use of technology. There were two kinds of barriers of technology integration in teaching and learning activities, namely extrinsic and intrinsic barriers. Extrinsic barrier includes as first order and cited access, time, support, resources and training, meanwhile intrinsic barrier includes second order and cited attitude, trust, exercise and resistance (Ertmer, 1999; Kurniawan, 2014). It is in line with previous study that argues that extrinsic barrier is related to the organizations or group rather than individual, however, intrinsic barrier is related to the educators and administrators (Hsieh et al., 2011; Uddiniyah & Silfia, 2019). In addition, other previous research also state that lecturer's role cannot be replaced by technology (L. Efriana, 2021; Mardiana, 2020). Using technology only for facilitate lecturer to deliver the knowledge in pandemic era and student can accept it but not for building the character of the students. In short, the possible suggestion is lecturer and students should accept the technology but not to

replace lecturer's role. Furthermore, lecturer and students need to living side by side with technology also both lecturers and students find the way to make the online class more effective and innovative.

Based on the explanation above, it becomes an important point to conduct the research related to the technology integrated especially in this pandemic covid-19 situation. It hopes the technology would help the lecturers and students in online teaching and learning process. Therefore, this study aimed to find out the barriers in technology integration faced by the EFL lecturers and students amidst covid-19 pandemic disruption.

2. METHODS

This study employed qualitative method in a case study design. Qualitative study is commonly used to investigate the quality of relationships, activities, situations or contributions (Fraenkel et al., 2012; McMillan & Schumacher, 2010). The participants of this study were EFL lecturers and students of one public university in Palembang. Two EFL lecturers and ten students from two different classes took part as participants of the study. The data were collected using interview and classroom observation. Individual interview was conducted to the lecturer participants, while focus group discussion was held with student participants. These interviews were video recorded after consent was obtained from the participants. Classroom observation was conducted to find out how technology was actually integrated in online learning of Paragraph Writing class and the barriers faced by the lecturers and students. This classroom observation was held at the time lecturers were teaching the online class through Zoom Meeting. The data of the study were analyzed using thematic analysis. First, the data from interview and observation were prepared. After that, coding process was started. Then, the data were displayed into description. Lastly, the findings as the answers the research questions of this study were written. In this study, the data from interview was validated by member checking technique. Member checking was a qualitative research process which the researcher asked one or more participants in the study to check the accuracy of the account (Creswell, 2012).

3. RESULTS AND DISCUSSION

Results

Based on the data analysis through interview and observation, it was found that there are two kinds of barriers in technology integration in online learning that was faced by the student and lecturer participants of this study there are extrinsic barriers and intrinsic barriers. Extrinsic barrier is related to barrier in resources of technology integration, on the other hand, intrinsic barrier includes barrier in technology integration such as barrier to improve the students' knowledge and skills in online learning.

Extrinsic Barriers in Technology Integration faced by Lecturers and Students

Based on the findings of the observation and interview data, some participants admitted that they had problem related to resources, which was barriers in their device or software. Although in this online learning and instruction they possessed the device and software, they were constrained with unsupported device such as laptop or smart phone and the internet signal that should fixed it as soon as possible in order to make online learning run smoothly. The signal during online learning and instruction was bad and the device was not supported. The fact that internet connection becomes the most barriers and the device needed to be upgraded was admitted by the lecturer as participant In addition, when online paragraphs writing class was observed, it was found that lecturer was difficult to apply the

Zoom Meeting application due to bad signal, although not long after that she can join the zoom meeting. However, students got difficulty to share screen learning material being discussed in zoom meeting. Another major barrier in online learning also happened in internet connection and electricity. Without electricity, the online learning was hardly done due to the internet connection was gone. Furthermore, the device, software, internet connection, electricity were the resources for the online learning and instruction process. In addition, time limited was found out in the barriers in online learning and instruction. Moreover, using platform needs more time to apply. In short, due to students and lecturer did not have enough time during online learning and instruction, it made them did the activities at the same place. Furthermore, in doing the online learning need platform this was demand for educator due to wasting time.

Intrinsic Barriers in Integration the Technology Faced by Lecturers and Students

As a lecturer, students' knowledge and skills in a course been an important thing as a result in teaching and learning. In this online teaching and learning, lecturers should have an extra effort due to this distance learning especially in this paragraph writing class. According to lecturer 1, the lecturer feels that in online paragraph writing class, she could not monitor their students directly, they do not know the process, they only know the result of their writing. In a result, it was found that the students did not focus while online learning due to they have disturbance. So that the lecturer should work hard to control the student one by one due to students' writing skills still low.

The Barriers to Control the Student's Attitude While Online Learning

One of achievement as a result in learning was have good attitude. As a lecturer, to control the students' attitude is one of task in learning. Unfortunately, in online learning and instruction, lecturers difficult saw the students' activities in class. Zoom as a digital tool to did the learning and instruction activities. When the students turn off the camera, it made the lecturers difficult saw their activities and manage students' attitude. In addition, students have the same issue with the lecturers, it founds in participant 2 that state in *zoom meeting*, there were on camera and on microphone so that it could saw all the activities. It was supported by the observation that I saw in virtual meeting. Not all of the students were open their camera and lecturers wee difficult to see their activities while online learning, did not know whether they are playing handphone during learning or they laying on the bed, etc. Furthermore, due to in virtual meeting the students and lecturers should have well dressed. So, in distance learning there was a lot to pay attention to from the appearance till the device, etc. Therefore, we have to adapt to face this online learning. In addition, many barriers faced by students and lecturers. There was internal barrier that could not avoid. Students as participant 1 mentioned for the barrier and challenge it back to the internal problem, sometimes lazy, etc. Another student as participant 6 stated that he has mental pressure due to this distance learning. In short, doing the online learning made the students felt bored and lazy to learn and did not enjoy because it made the mental pressure for the students, it was barriers to adapt it. In addition, because of virtual meeting, lecturer felt that difficult to explain their feeling. One of lecturer 2 as participant in this study explained that in virtual meeting such as zoom or google meet, lecturers and students could communicate only from chat box, so that it could not disturb the lecturers or students while the learning, unfortunately, the weaknesses is that both students and lecturers could not see the expression of them, only read the message from the chat box. It has advantages or disadvantages used this digital tool as a media in this online learning and instruction.

The Assessment Barriers in Integration the Technology

In online learning and instruction, it should have assessment as a result in this learning. For assess the students, lecturers need application due to this online learning. in this study found that the assessment in online learning and instruction use the technology which was from digital tool such as zoom application, *Google meet* and e-learning. It stressed by the lecturer 1 in this study that, the students could submit their assignment by integration the technology such as using e-learning, google form or directly in virtual meeting like *zoom* and *google meet* and the lecturer could use the *Grammarly* application to check the student's grammar or spelling. Unfortunately, sometimes, they have barrier to integrate the technology in assessment. It was found that lecturer difficult to give feedback to the students' assignment because it was time consuming. It was found that lecturer 2 state there are another way to give feedback to assignment of students, it could be directly given comment or feedback in virtual meeting like in zoom or google meet, so that, students could know what they have mistaken. It has solution to assess the student, directly give feedback it made not wasting the time.

The Possible Suggestion in Handling the Barrier of Integrating the Technology

According to the data that I found from the interview and observation; it founds that there were some suggestions from the participants (lecturers and students) in handling the barrier of integration the technology. The first categories were the digital tools preparation. One of participant in this study explained their feeling related to the solution was they should move to another provider to get better signal. According to student as participant 7 in this study expressed that *"the solution and anticipate might looking for another provider that have good signal"*. Good signals were very important to this online learning and instruction, participants could not join the learning if they have internet connection problems. Another issue with participant 10, she stressed that *"just go to another place"*. Move to another place that has good internet connection which help participant to join the online learning. Otherwise, there was activity that lecturer 2 experienced and suggested that *"I choose to wait and prepare connection, I will ask my kids not to use laptop, I'm gonna teach, so that I can use it"*. Different choice that lecturer 2 chosen for this situation, to handling her barrier, she asked her kids to give her laptop because she would teach her students at that time. Another issue from participant 6 mentioned unfortunately, if the computer/ laptop has the low battery, it could not use with the power bank. So that, another solution from the participant 4 explained that *"maybe there was solution from the institute if there was recommendation for students did not have internet quota, they could go to library to get free Wi-Fi"*. Actually, both students and lecturers ever got the internet quota from kemendikbud, but now, there was not, so it was nice solution for who wants to get the free Wi-Fi for the learning, they could go to the library. But, update the device could help the students got better software. It based on the participant 4 experienced that he has upgrade the device. In order to make the feature in device flow smoothly, the participants should upgrade their software device.

Need Guidance and Counseling in Applying the Technology

Nowadays, in digital tools benefits, to get more knowledge in integrating the technology, both students and lecturers were joining the webinar/training/ workshop to catch new experience, learning, knowledge and relation to solve the problem. All of the new students in English Education Study Program, Sriwijaya University, have the workshop about technology integration in terms of website or application. It has many benefits for them to apply the technology. The workshop did by the students it was done in online. It was very

helpful for the students to catch the new knowledge for them to know what e-learning was and how to use it in online learning and instruction. The participant as lecturer 1 and lecturer 2 in this study was ever join the training and workshop, it was benefit for her to get new knowledge to teach the students in online learning and instruction. In short, in this pandemic situation, we should get the webinar/workshop or training about technology integration because it was very useful for students and lecturers for this online learning due to the learning would be running. In handling the barrier to integrate the technology, another solution was we could ask friends as a solution to solve the problem. It was found in this study and done by the lecturer 1 that he asked his friend how to solve the problem in technology. He thought that it was useful for him. Based on his explained, it was found that other ways to solve his problems in integrating the technology was that he could browse in the internet what he needs for example watch in the YouTube, browse, find and correct the problem.

Discussion

Technology integration in an online class was important and have many benefits, unfortunately all the things was not flow smoothly. In integration the technology during online learning would have barrier to face it. Barriers means that the situation which have problems or obstacle that made difficult did the process and achieved the purpose (Mailizar et al., 2020; Schoepp, 2005). In this study, it was found that while online learning, in integration technology would have 2 barriers in themes which called extrinsic barrier and intrinsic barrier. In extrinsic barrier there were access, time, support, resources and training, however, in intrinsic barrier there were attitude, trust, exercise and resistance. In addition, as mentioned above, both lecturer and students have the same issue for this study, it was found that in extrinsic barrier, lecturer and students was have the barrier in integration technology in categories of resources includes inadequate technical support such as device problems, internet connection problem, electricity problem and lack of time, on the other hand in intrinsic barrier those lecturer and students were have the barrier in integration technology in categories of improve the students' knowledge and skills in online learning, the barriers to control the student's attitude while online learning and the assessment barriers in integration the technology (Ertmer, 1999; Kurniawan, 2014). This was in line with this several studies who emphasized that the four themes of barriers in integrating the technology while online learning such as lack of resources, inadequate knowledge and skills, attitude and beliefs and assessment (Junus et al., 2021; Kwarikunda et al., 2020). Those barriers also emphasized in this several studies, when the electricity was off it could hinder the online learning process due to the device was off, and if the poor internet connection would make the user could not join the online learning, otherwise, time limited should be aware during this online learning and for the online assessment, lecturer and students' needs to adapt this situation (Cowan, 2008; Cuban et al., 2001). It needs some preparation to face this online learning and need the solutions to fixed the barriers doing the online learning by the lecturer and students. In conclusion, compared to the offline learning in class, the online learning has many obstacles, but it was also having the advantages for instance learning in distance from home. In addition, to handling the barrier in integration the technology, both lecturer and student need to have knowledge improvement in technology integration such as they were having webinar or workshop or training. It was supported by other previous study that state there are some suggestions that can be applied such as lecturer and students need guidance and counselling in applying the technology, lecturer should prepare the learning materials (L. Efriana, 2021; Fadlilah et al., 2020). It was the same issue in this study, it was found that students and lecturers have joined the webinar and workshop in different place. Otherwise, in this study also found that by discussing with friends, it could help them to get the new information and

handle the barrier that they face. From the explanation above, the researcher suggests to the next researcher to conduct deeper research in this area: the challenges of students and lecturers in online learning and teaching and possible suggestions to improve it. This is because this research has limitations in providing solutions to problems that exist in the field, especially problems related to obstacles in technology integration in pandemic disruption.

4. CONCLUSION

It is apparent that there were some barriers that the EFL lecturers and students faced in technology integration in online learning at one public university in Palembang. As a result, for the first barriers of technology integration faced by lecturers and students was lack of resource in terms of difficult to get the good signal, the electricity was off, using the bad device, and have the limited time to access the online learning and instruction was the dangerous part. Meanwhile, for the second barriers of technology integrated was inadequate knowledge and skills, as a result, student did not focus doing this online learning due to have the distraction from others, so that lecturer should have an extra effort to give them motivation and become an active student in this class. In addition, for the third barriers of technology integrated was difficult to control students' attitude in online learning, because distance learning, lecturer could not saw the students directly and difficult to control them. Last issue for barriers in integrating the technology was that the assessment, students and lecturers need to adapt to face the new assessment system in online learning.

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