

# TPACK IN PRACTICE: EFL PRE-SERVICE TEACHERS ON INTEGRATING TECHNOLOGY DURING ONLINE TEACHING IN THAILAND

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## Abstract

Before the COVID-19 Pandemic, teaching activities were usually done directly at school, now it had to be done virtually. It also impacts teachers and students, who must use technology during learning activities to get maximum results. Likewise, pre-service teachers who carry out teaching activities in Thailand must choose the appropriate technology for them as a learning medium. Therefore, this study explores how EFL pre-service teachers integrate technology for online learning activities and their views on students when integrating technology during teaching-learning activities. The qualitative case study was used in this research, using observation, interviews, and document analysis as the instrument to collect data. Two students in the 5th semester from the English department participated in an internship held from June to March 2021. The results are participants have recognized and used various kinds of technology that are usually used in learning activities. The use of videos and PowerPoint are the most frequently used by participants because of the ease of use, which impact students' understanding positively on the material being taught and become more active in class. Moreover, the various technologies used in teaching and learning activities can make it easier for teachers to find and deliver learning materials.

**Keywords:** *Integrating technology, TPACK, EFL pre-service teacher, Online Teaching*

## INTRODUCTION

Nowadays, online teaching and learning have been done by several countries due to COVID-19 Pandemic. It has an impact on teachers caused they did not do face-to-face learning. However, this does affect not only teachers but also EFL pre-service teachers who do international internships. They also have to do online teaching activities because circumstances do not allow for direct learning in the classroom. Therefore, the pre-service teacher has to incorporate technologies into the learning activity. Online learning activities in this Pandemic period are natural things to do; with these online activities, students are becoming more frequent in using the technology, they have to support learning activities. Learning experiences in Twenty-first-century learning (21CL) are to engage and foster students in the side of cognitive and metacognitive, productive in working with different cultures, and technological competencies to fit with the workplace function (Koh et al., 2016; Koh et al., 2015) as cited in Drajadi et al., (2021). Using technology in the 21st century is not common anymore, where people are familiar with and master various existing technologies, especially in education.

Educators and learners should get to know more about technology in the classroom because this can support and improve learning activities (Amin & Sundari, 2020).

In the 21st era, technology can be considered as a bridge between various fields in terms of economy, health, and education. In the world of education, we know that the role of technology can help teachers to facilitate learning activities, such as making worksheets or digital videos. Likewise, for students whose daily who may not be separated from the use of technology in their daily activities. Technology is one of the essential things needed in everyday life for various fields, as we see today that even students always hold their smartphones everywhere (Syamdianita & Cahyono, 2021). The technology used in learning activities can also increase student motivation in learning so that students do not feel bored and monotonous only with the material in the textbook. Compared with traditional teaching methods, using technology in the language learning process has made good progress because it can help and motivate students in language learning (Khan et al., 2021). Therefore, one way that can be used to involve technology in learning is through the Technological Pedagogical Content Knowledge (TPACK) framework.

Kurt et al. (2014) stated The TPACK is a model which integrates three components; technology such as the internet, digital video, etc., pedagogy has a relation with method/strategies used in teaching-learning, and content are lesson will be taught. Syamdianita & Cahyono (2021) mentioned seven constructs in the TPACK framework according to Schmidt et al. (2009) those are; Content Knowledge (CK), Pedagogical Knowledge (PK), Technological Knowledge (TK), Pedagogical Content Knowledge (PCK), Technological Pedagogical Knowledge (TPK), Technological Content Knowledge (TCK), and Technological Pedagogical Content Knowledge (TPACK). Language teachers need to have TPACK framework knowledge in supporting the integration of ICT for curriculum practices, such as designing materials and assessments (Drajati et al., 2021). Therefore, the integration of technology that is included in lesson plans and implemented in the classroom can provide students with the learning process close to their daily activities by involving technology.

Drajati et al. (2021) argue there are still amount of pre-service teachers who have difficulties in creating lesson plans, involving technology in learning activities, as well as pedagogy and content in it. Regarding this statement, the TPACK framework is an important thing that must be owned and developed by pre-service teachers. When we become a teacher, the ability to master the technology or TPACK framework is fundamental for a teacher in the world of education. Previously, Kurt et al. (2014) argued that pre-service teachers have an essential role in selecting and deciding effective technology used for learning activities. Even though using technology in learning activities has positive impacts, the teacher needs to have good competency and literacy in utilizing the technology (Mercado & Ibarra, 2019). Therefore, in teaching the TPACK framework to pre-service teachers, it is hoped that it can help them in the success of learning activities in the future.

In learning activities, the involvement of the use of technology in it can be done by teachers. Valtonen et al. (2017) state students must be able to apply ICT as a tool that includes skills in the 21st century, namely learning, collaborating, problem-solving, creative, and innovative thinking. In improving those skills, the teacher also has to pay attention to technology that can be used and is suitable for students in learning activities both face-to-face and virtual learning environments. Teachers have a crucial role in improving student learning by using technology as a practical activity (Tondeur et al., 2017). The existence of technology that is integrated into learning activities can make students more active and interested in taking lessons in class, especially with material that they think is difficult to understand.

In language classes during virtual environments, using technology such as application, device/digital tools, gamification/social media is nothing new to facilitate teaching-learning activities (Amin & Sundari, 2020). Those different technologies were helping teachers to achieve the learning objective. Therefore, this study aims to explore EFL pre-service teachers on integrating technologies through the TPACK framework in designing and implementing teaching material, also to see participants' views on students' responses while using the technology in learning activities.

## **LITERATURE REVIEW**

### **Integrating Kinds of Technology in Teaching-Learning Activities**

Students need the ability to use and integrate technology nowadays; therefore, teachers are proposed to incorporate technology and guide them in learning activities (Septiyanti et al., 2020). Involving technology in teaching and learning activities existed before the Pandemic. Then, due to the Pandemic, which switches from face-to-face become online classes, there has been an increase in using technology for learning. According to Syamdianita & Cahyono (2021), In teaching-learning activities integrating technology is an important thing done by many educators, with technology helping learning activities be more effective and achieve predetermined learning objectives. This can be seen when EFL teachers integrate technology in learning activities to improve certain abilities, such as listening, speaking, writing, and reading.

Abdulrahman, Basalama, & Widodo (2018) conducted research using podcasts for EFL learners' listening comprehension, and the result was students feel motivated and interested in using podcasts for their listening activity. In supporting and improving students' writing skills, there is some technology used, such as Google Maps and PowerPoint. In their study, Google Maps was used by Krishnapatria, Kurniati, & Saefullah (2019) to find out how students write recount text with this technology. It concluded that students gave positive responses during the use of Google Maps for writing activities, and also, the lesson plans were considered successful for the learning. Next is PowerPoint could support students' writing skills, providing a flowchart for students in the planning stage (Mali & Salsbury, 2021). Used WhatsApp for students' vocabulary and speaking skills, as a study conducted by Khan et al. (2021). Their

research was to investigate students' attitudes towards WhatsApp in learning activities, and the result is that students have positive attitudes in vocabulary learning and development by using WhatsApp. The use of videos at the beginning of learning can positively impact students and help their listening skills. A study by Waluyo & Apridayani (2021), conducted qualitative research to discover teachers' beliefs in using video for English language teaching. The results are that they can believe video has a positive effect during learning activities, which is influenced by several factors.

### **TPACK Framework in Online Teaching**

According to Syamdianita & Cahyono (2021), TPACK is an approach to find out the use of technology following the curriculum, what and why the particular technology is used, how to teach learning subjects using a specific technology. Using TPACK in integrating technology and then implementing it in making lesson plans and learning activities can help teachers, especially in virtual environments. A reciprocal relationship between content and pedagogical knowledge is needed to get the effectiveness of integrating technology in teaching-learning activities (Sari et al., 2021). The existence of TPACK can help teachers choose the right technology to suit the material and way of teaching students. Because in virtual environments/online learning, choosing the right technology is an essential factor in achieving learning objectives. Moreover, TPACK can be used as a technology integration model to explore teachers' understanding of using ICT in teaching activities as a pedagogical tool (Ammade et al., 2020). There are three important components in TPACK according to Koehler & Mishra (2009) as cited in (Redmond & Lock, 2019), namely Content Knowledge (CK) is teachers' knowledge of the subject to be taught to students, Pedagogical Knowledge (PK) is teachers' knowledge of teaching and learning processes and methods used for teaching during class, and the last Technological Knowledge (TK) is teachers' knowledge of the technology used for and during teaching-learning activities.

### **METHOD**

The case study was used as a research design for this study. According to Duff (2008) as cited in (Heigham & Croker, (2009) notes that a case study focuses on individual learners/other, individual behaviors or attributes to understand and interpret using particular references for the behaviors, values, and structures of collectivities. This study purposed to explore EFL pre-service teachers in integrating technology through the TPACK framework also to see participants' views on students when using technology in an online class. The participants were two students in the 5th semester from the English department of Universitas Muhammadiyah Gresik who had completed their internship activities. The internship was conducted in Loei, Thailand, for two semesters (June 2020 – March 2021) using the online class system due to the COVID-19 Pandemic. This internship aims to help Thai students learn English using technology during online learning. Besides that, this internship opens up opportunities for students majoring in English to teach on an international scale. The existence of this

internship is a form of collaboration between the University of Muhammadiyah Gresik and one of the primary educational service offices in Loei by assigning participants to teach English at a remote school in Loei village, Thailand.

The technique of collecting data was through observation, interview, and document analysis. In observing teaching records, the researcher uses an observation checklist. The observation sheet itself consisted of teachers' TPACK in teaching (7 indicators), students' responses during learning activity (4 indicators), teaching activity matches with the lesson plan (5 indicators). Interview questions have been adopted and modified from Schmidt et al. (2009) about the TPACK framework. The interview was held via Zoom, taking 30-40 minutes. The participants were chosen based on their teaching experience from a different grade of students and their familiarity with using technology to teach English. During this pandemic COVID-19, the researcher conducted the interview online and used open-ended questions to get detailed information from the participants. At each point of the TPACK framework, there are 2 to 3 questions (ex: TK – 3 questions, CK – 2 questions, etc.) While for document analysis itself was the lesson plan used by the pre-service teacher in teaching activity. The lesson plans chosen for document analysis are lesson plans with different topics, and the use of technology also includes TPACK. This lesson plan is undoubtedly following the one used in the teaching record that the participants have given.

Observation, interview, and document analysis on lesson plans were used in gathering the data. The thematic analysis method was employed in analyzing the data. Crosley (2021) explained that thematic analysis is useful when looking at information from participants' experience, views, and opinions which the researcher could conduct the data from surveys, interviews, or conversations. The lesson plan will be analyzed using Technology Integration Observation Instrument from Harris et al. (2010) as cited in (Kurt et al., 2014). Those 6 categories are: (1) Curriculum goals and technologies; (2) Instructional strategies and technologies; (3) Technology selection(s); (4) Fit; (5) Instructional use; and (6) Technology logistics. Using a 4-point scale to give a rating for each category; for example, in the second category "instructional strategies and technologies" got 4 points which had the meaning "technology use optimally supports instructional strategies."

## **RESULT AND DISCUSSION**

The researcher collected data from two EFL pre-service teachers who have been internships in a different rural school in Thailand. The interview aims to get to know teachers' views or experience on their TPACK using technology in the teaching-learning activity. In contrast, the lesson plan is to observe what kind of technology the EFL Pre-service teacher uses during the learning activity. Participants of this study teach students from different levels in primary school. The identities of the participants will be mentioned as EPT1(English Pre-service Teacher 1), EPT2(English Pre-Service Teacher 2). The result will be categorized into two themes; First is integrating technology in

learning activity which includes designing teaching material and implementing teaching material. The second is participants' views on students during the learning activity.

## **Integrating Technology in the learning activity**

### ***Designing teaching material***

Participants have to know the technology usually used in online learning when designing teaching material. Because some teachers and learners still do not know some of the technologies tools used in EFL classrooms. The teacher needs to choose the appropriate technology as a learning medium for conducting distance or virtual learning, particularly during the Pandemic (Almubarokah & Arifani, 2021). The number of existing technologies, both applications and platforms, can help teachers facilitate teaching activities. In this case, participants with a modern mindset at their age already know various kinds of technology. Such as the participants' responses below, already known some of the technologies used in learning activities.

**EPT1** *"Video, PowerPoint, LINE, Zoom, WhatsApp, Google Classroom, Edmodo, Google Meet."*

**EPT2** *"Zoom, Google Meet, LINE, Quizizz, PowerPoint, Hot Potatoes, Hangaroo, Video."*

By looking at the advice of the mentor teacher and the condition of students, they choose the technology used during two-semester of learning activities. From participants' responses below, Zoom is the technology most commonly used in English learning activities. Many people from individual to organizations choose Zoom as a video conferencing tool during Pandemic; some features provided by Zoom have an impact on creating an interactive learning environment in the field of education (Serhan, 2020). The existence of various components in Zoom makes it easier for participants to share learning materials, especially in presenting them. Zoom is also easy to use and provides clear feature icons so that participants and students are not confused about using it. Moreover, they choose Zoom as media for their teaching-learning because they have been using Zoom in daily activities.

**EPT1** *"At the initial meeting, I planned to choose the video that was displayed via Zoom, but the signal and device were not very supportive. Then for several meetings, I use PowerPoint as well as websites that are displayed via Zoom."*

**EPT2** *"For technology selection, I conform with students and also the mentor teacher who has used Zoom. Besides that, because the mentor teacher is learning and applying the same application, I have used."*

After selecting the learning media used for teaching, participants began to search for materials and combine these materials using the available media. Regarding the interview results below, the technology used by most of the participants was YouTube, PowerPoint, and the website. In the advancement of use technology, teachers integrate

PowerPoint, video, and web resources on their learning activity (Ledbetter & Finn, 2017). Using a website is a common thing to do to find specific information because a website can provide a variety of different information such as about education, health, technology, and others. Therefore, participants also use the website as a reference in finding learning materials. Using YouTube as a resource for searching video materials is easy to access and suitable for the classroom (Kabooha & Elyas, 2018). YouTube helps participants find learning videos according to the topic to be taught because it provides different videos that can attract students' attention and make it easier for students to access them. In addition, Ledbetter & Finn (2017) stated that PowerPoint is one of the most technology used and accepted in the classroom. The reason for using PowerPoint is to help participants present learning materials more efficiently. Therefore, displaying different PowerPoint slide themes in each topic will attract students' attention.

***EPT1** "For materials and videos, I prefer to search on YouTube. However, sometimes I also search for materials, pictures, and games through the website. Meanwhile, to make PowerPoint, I downloaded a template that has been provided on one of the websites."*

***EPT2** "I am looking for teaching material on the website and applying it to PowerPoint. Canva platform for creating worksheets and using YouTube for searching videos. I also use Hangaroo or Hot Potatoes software to make simple games or questions."*

By involving technology in learning activities, it can help teachers quickly to find materials and things related to learning. Nowadays, where the use of technology is also advanced increasingly, it entails teachers adapting the technology and using it in teaching-learning activities. In this study, participants have used technology because of situations that do not allow face-to-face learning and make learning activities more effective. English teachers are expected could integrate technology so that teaching and learning activities become more efficient and effective (Nova, 2017). Therefore, EFL pre-service teachers integrate technology according to what they commonly use in searching materials, which impacts their development and creativity. Kalonde & Mousa (2016) explain several factors that influence teachers in choosing the technology used for learning activities, namely, ease of use, making lessons more interesting, students and teachers becoming motivated and happy, also improve the presentation of the material. Some of the technologies mentioned by the participants above sound familiar and easy to use or access.

### ***Implementing teaching material***

From those statements in the section above, participants have mentioned several technologies used in learning activities. However, here the researcher only makes observations for one lesson plan from each participant. Thus, not all the technologies mentioned by the participant can be described in this section.

The categories for observing lesson plans are (1) Curriculum goals and technologies; (2) instructional strategies and technologies; (3) technology selection(s); (4) fit; (5) instructional use; and (6) technology logistics. This finding in observing the lesson plan will be related to three main aspects of the TPACK framework, namely Content Knowledge (CK), Technological Knowledge (TK), and Pedagogical Knowledge (PK). According to (Koehler et al. 2011, p. 151) as cited in (Kurt et al., 2014), content could be simply defined as a subject to teach, while pedagogy is how to teach the material to students, the last is about technology are using tools in a teaching-learning activity.

### **EPT1**

EPT1 was appointed to teach in grade 4, with the condition of the students who were in the classroom at that time. So that learning activities also use devices from the mentor teacher. The first category is curriculum goals and technologies, and she got 4 points. This category was targeted on the correspondence between curriculum in the lesson plan and technology used. In the lesson plan made with the topic of health and welfare, it has a sub-topic of parts of the body, and there are two learning outcomes, namely:

- a. Students are able to determine their parts of the body
- b. Students are able to count their parts of the body

She uses video in the pre-activity with the aim that students can recognize body parts. The existence of pictures and videos of singing while using whilst-teaching activities so that students can get to know more about vocabulary and pronunciation, especially the use of songs, can make it easier for students to remember vocabularies about parts of the body. Giving students videos of the body could help them determine and count parts of the body.

The second category is Instructional strategies and technologies. Students are asked to pay attention to the video from YouTube shown through PowerPoint slides to get to know vocabulary about parts of the body. In addition, she also showed pictures of parts of the body to make it easier for students to imagine the body parts and how to pronounce them, which was done by herself. It is known that students perform counting games activities in groups after being given a video related to the counts part of the body. Students do the task individually to draw monsters according to her instructions. The application of technology in her teaching activities has optimally supported the lesson (4 points).

Next will focus on technological compatibility to both instructional strategies and curriculum. This category is related to technology selections, and she got 4 points. In choosing technology for learning activities in this class, the pre-teaching activity uses videos that explain more about vocabulary. Then, EPT1 also used a video

related to the counts part of the body. The existing pictures that are displayed on the PowerPoint slide are also used to explain vocabulary and its pronunciation.

Fit category in here was looking from content, pedagogy, and technology. In EPT1's lesson plan, in terms of content, pedagogy, and also the technology used during learning activities is fitted together (4 points). Students can determine and count part of the body, which is assessed from speaking activities as learning objectives. In terms of pedagogy and technology, she taught using appropriate technology, such as asking students to imitate the pronunciation of parts of the body via Zoom after they watched the video. The existence of games that are carried out after watching the music to count part of body video, which is done in groups, helps students be more confident in speaking. Then, the use of Zoom as the essential learning media to display PowerPoint and play videos.

The fifth category is Instructional use. When starting learning activities, she asked students to watch the video playing and do exercises after watching it. Then, she repeats the vocabulary that has been mentioned in the video, so students can easily remember the vocabulary from the video given. She also displays pictures and music videos so that students do not feel bored in their learning activities. The music video that was shown, was related to the games held after she finished explaining the vocabularies parts of the body. It could be said that instructional use of technology from EPT1 was effective (4 points).

The last category is Technology logistics, and she got 4 points (technology can operate well). EPT1 can easily apply technology in her learning activities. The use of technology such as video and PowerPoint, which has been displayed through a share screen via Zoom makes it easier for students to see the video and PowerPoint. In using Zoom at the school where she teaches, she uses a device from her mentor teacher. So that, it makes the students easier to participate without any obstacles from signals or devices. However, students also have to sit neatly so they can be seen in the Zoom frame during a primary activity of learning.

## **EPT2**

EPT2 was appointed to teach in grade 5, and the students who were in the classroom at that time. Learning activities use devices from the mentor teacher and LCD in class. In the first category, the lesson plan is designed with the topic of food and drink (restaurant). There are three learning outcomes, namely:

- a. Students are able to understand the material.
- b. Students are able to know the pronunciation.
- c. Students are able to Speak, Write, and apply in their daily life.

Therefore, she uses pictures and videos in the pre-activity with the aim that students can identify kinds of food and drink in the restaurant. There is the use of flashcards in whilst-teaching so that students can get to know more about some

vocabulary and pronunciation. The technology she used and the curriculum was strongly aligned (4 points).

The next category is about Instructional strategies and technologies, and she got 4 points (technology used optimally support). Students are asked to pay attention to pictures and a video displayed on PowerPoint to recognize and learn vocabulary. Then, also using computer software as media to play games and quizzes.

The selection of technology used in her learning activities was exemplary. EPT2 uses video to build students' knowledge of food and drink material. In addition, the flashcards displayed in PowerPoint can help students imagine kinds of food and drink also recognize vocabularies. She got 4 points in this category.

Overall, the technology used by EPT2 in the lesson plan follows the content and pedagogy (4 points). It can be seen from the learning objectives, which are expected that students can get to know and talk about food and drink. In addition, in terms of pedagogy, she teaches using appropriate technology, such as asking students to imitate the pronunciation of food and drink via Zoom after they watch the video and listen to the teacher. The most important thing is the use of zoom, which bridges learning activities, namely to display PowerPoint and play video.

The Instructional use of technology from EPT2 could say effective (4 points). This can be seen when she starts to play the video then asks students to watch it quietly and imitate what was in the video to get students' attention. Then she explained materials to the students. Display flashcards to find out the vocabulary in the material and ask students to imitate the pronunciation. Moreover, she also gives conversation pictures so that students can also practice speaking with their peers.

The sixth category is Technology logistics, and she got 4 points because technology can operate well. She can easily apply technology related to her learning activities. The use of technology such as videos that are shared screen via Zoom makes it easier for students to watch the video because students only have to open Zoom through the device from their mentor teacher. The school where EPT2 teaches has also been provided with an LCD. In addition, when using other technologies, the mentor teacher will help students to use them.

From the lesson plan observations based on Technology Integration Observation Instrument, it can be seen that the participants of the study have maximized the use of existing technology. Using technology in learning also depends on students' understanding, ease of access, and use. Through three lesson plans that have been observed, video is the most basic thing in the pre-teaching activity. Using video in classroom activities began in 1980s, and then teachers believed it could be a stimulus in speaking activity (Waluyo & Apridayani, 2021). It can be seen that the use of video is indeed the most basic and standard thing for teachers to use. Using the video in learning activity could build students' background knowledge which increases and enhance

students' understanding (Sakkir et al., 2020). Because it provides visual and audio, also the teacher will be easier to deliver the material. Moreover, Kalonde & Mousa (2016) explained that the use of video in class for students is not only to read material from the text, but they can visualize and contextualize directly using the video.

Then, the use of PowerPoint helps the EFL pre-service teacher to show and deliver learning materials. A study conducted by Ruggiero & Mong (2015), stated that teachers still use PowerPoint as a tool for their teaching in a classroom. The existence of PowerPoint in this study helps the teacher to present material in an organized and attractive look. Therefore, the templates provide for PowerPoint are already available on various platforms. Using PowerPoint help to improve and develop teacher creativity. Moreover, using PowerPoint could help a teacher in practicing and drilling new vocabulary for students which has been displayed in PowerPoint slides. Lari (2014) elaborated explanation from Segundo & Salazar (2011) stated that presentations made and displayed using PowerPoint can help students practice and drill or review the material that has been taught.

Results of the observation checklist that were carried out showed one of the participants had not yet applied the technology as a whole, as in the lesson plan. In addition, an obstacle lies in the participants' device, whose response is a bit long when starting to use the technology. However, this does not interfere with the teaching-learning activities carried out, because it still runs smoothly and can achieve learning objectives. It can be seen that the students also understood the material and were enthusiasts about the technology used by participants. In addition, the EFL pre-service teacher has also mastered the use of technology and learning materials that will be taught at that time. The technology they use can help in delivering materials and learning methods. It means that the participants successfully integrated technology, pedagogy, and content through the TPACK framework. For example, they do drilling for the topic of body parts to students, with the help of video and flashcards that are displayed on PowerPoint slides. Using those method, students are more aware of the vocabulary described through pictures and words which appear in the video or flashcards.

### **EFL pre-service teachers' views on students during the learning activity**

During the learning activities, the participants also observed the use of technology in the classroom. (Amin & Sundari, 2020) stated that language teachers integrate technology in the school to facilitate their teaching also to engage students and create an attractive learning atmosphere. Because in online or distance learning, the technology used also affects the success of the teaching carried out. To find out, student responses are one of the main points to seen during learning activities with technology integrated by the participants. In this section, the researcher asks whether students can easily understand the technology used during learning activities or not, then participants provide answers as follows:

**EPT1** *"In the game snake ladder and flashcard, some students understood, others did not understand the material and how the game was played. So, it takes several meetings so that students can understand the game."*

**EPT2** *"From the students, it is easier to understand and use YouTube. In addition, students also like the existence of games in learning."*

One participant in this study stated that their students had difficulty with the technology used. EPT1 said that one of the technology integrations she uses is games, that combines websites and flashcards. She needs several meetings for students to understand the game. While EPT2's students were easier to understand YouTube in learning activities. It is known that students were not familiar with the technology used by participants at the initial meeting, so they were confused and could only understand the use of technology they usually use.

Furthermore, it is related to students' understanding of the material being taught. All participants in this study said that they focused on speaking skills. The selection of appropriate technology can make students actively participate in learning. In addition, the reason teachers use technology in their classroom is to attract students' attention and enhance learning activities to become more effective (Lari, 2014). Therefore, the researcher asked whether the technology used could improve students' understanding of the material. Participants gave almost the same percentage for student understanding.

**EPT1** *"Students understand the material better in semester 1 because there are more meetings and the media used is simple (PowerPoint). Meanwhile, for semester 2, there are fewer meetings and more media, such as websites for games combined with PowerPoint making students confused. However, the use of technology can improve students' understanding and vocabulary in speaking, although not 100%."*

**EPT2** *"Using Zoom for meetings which is displayed through the LCD TV at my school, makes it easier for learning activities, particularly in speaking. In semester 1, students are still shy. But in semester 2, students are more enthusiastic and increase their understanding. 70% of students are active and understand the lesson provided with the technology."*

The explanations given by the participants; it is known by using technology, students from each participant consistently understand the material that has been explained. The participants' explanation shows that the technology used by participants to display learning material influences students' understanding. Although there is some obstacle in the learning activity, integrating technology in classroom activity could affect students' participation and achievement.

Participants have used technology optimally, but they still have problems during learning activities in terms of language, students, and technology itself. Ghavifekr, Kunjappan, Ramasamy, & Anthony (2016) explained the obstacles experienced by

teachers while using technology can come from outside, namely, access, lack of resources, time, and technical support. Regarding access, the school where the participants did the internship was in a rural area, so the signal and the lack of devices became one of the obstacles when learning online. When it is possible to go to school, the school also provides technological facilities so that learning activities can run smoothly. In addition, the technology used can improve students' understanding of the material; they also can actively participate, especially in speaking activities. It can be seen from the participants' explanation regarding the percentage of activity and students' understanding of the material being taught.

Not only that, but participants also found that the technology used made some students confused at the beginning of its use, which could affect the learning objectives. Therefore, Alenezi (2016) says that the fruitfulness of integrating technology in the classroom depends on how the technology is used. Due to the different grade levels in this study, the EFL pre-service teacher uses different technologies and chooses them appropriately so as not to make students feel confused. By integrating commonly used technology, it can help students easy to understand the material, such as using YouTube videos which allow learners to access and use it. However, it is natural that students are introduced to new technology at the first meeting, making them dizzy because they still need adaptation. Therefore, the teacher has role as a guide for students, to explain technology as a learning tool in the classroom (Alenezi, 2016).

## **CONCLUSION**

The results obtained after analyzing the interviews and lesson plans show that the EFL Pre-service teacher has maximized the integration of technology in learning activities that have a good impact. In designing teaching materials, participants use technology that is usually used, such as websites and YouTube for searching materials, as well as PowerPoint to display the results of teaching materials. The technology tools used are also following the conditions of students and their mentor teachers (use of Zoom), and during teaching activities, participants can deliver material properly also according to technology used. In addition, students are consistently active and understand the material explained using the technology. It shows that, although the use of technology at the beginning had a few obstacles, students began to get used to two semesters. Moreover, teachers can also increase their creativity with this technology, making students motivated and have good scores during learning activities. Further research with a different number of participants and instruments can be carried out to explore particular technology in TEFL as a tool in improving teacher creativity and self-efficacy.

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