



EFL PRE-SERVICE TEACHERS PERCEPTION OF TECHNOLOGY INTEGRATION IN ENGLISH LANGUAGE INSTRUCTION

Nayla Ridha^{1(*)}, Rahmah Fithriani²

Universitas Islam Negeri Sumatera Utara, Medan, Indonesia¹²
nayla0304193229@uinsu.ac.id¹, rahmahfithriani@uinsu.ac.id²

Abstract

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Technological developments brings a good effect on English education. Several studies have shown that the use of technology is very helpful for teachers in the process of teaching English. However, the facts on the field state that many obstacles that made it difficult for teachers to apply technology in their teaching. On this basis, researchers aimed to examine the perceptions of EFL pre-service teachers regarding the use of technology in English instruction during teaching practicums in a junior high school in Medan, Indonesia. This study employs a qualitative research method. Participant observations and interviews were used to obtain data from six pre-service teachers. The results show that the pre-service teachers frequently utilize laptops, projectors, and smartphones to access websites and applications for English instruction. This study also asserts that employing technology during English instruction has numerous advantages, such as enhancing student motivation and collaboration, and increasing pre-service teachers' creativity and technology skills. Furthermore, some challenges in integrating technology into instructional practices were also acknowledged, which include being time-consuming, lacking of facility, and making the classroom less conducive.

Keywords: English Language; EFL; English Instruction; Pre-service Teacher; Technology Integration

(*) Corresponding Author: Ridha, nayla0304193229@uinsu.ac.id

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INTRODUCTION

Rapidly changing technologies bring about many improvements that lead to revolutions in diverse industrial aspects worldwide, including in language education. Technology use in language education has become a global phenomenon and its application in English language instruction is not a new practice for educators (Champa et al., 2019; Thi, 2020). Technology usage has also demonstrated its potential in English language instruction. A myriad of studies has examined the users' global perception of technology's efficiency in English instruction and reported its diverse benefits. In Bangladesh, Talukdar (2016) conducted qualitative research by collecting data through observation, in-depth interviews, and group discussions with 24 teachers and 150 students from 12 urban and rural schools. The results demonstrated that students could easily develop their language skills and introduce new language items through the use of technology. In Turkey, Lidice & Sağlam (2012) conducted the study with full-time foreign language teachers at a university on the Asian side of Istanbul. The study concluded that the application of technology to English instruction could encourage students to construct knowledge, find and create teaching materials, accommodate

students with different learning styles, expose students to lifelong learning skills and strategies, and develop skills through the use of technology.

A similar condition can also be found in Indonesia, where English instruction has been implemented since the late 1950s (Aminullah et al., 2019). The Indonesian ministry of education and culture has long mandated teachers to utilize technology in their teaching practice. Thus, studies have been conducted on the efficiency of technology in English instruction in Indonesia and the main findings indicate that technology is a helpful tool for learning. It can accommodate a variety of skills and learning styles, that it makes learning more efficient, that it increases self-confidence, encourages creativity and imagination in discovering, exploring, analyzing, and presenting information, and that it improves English skills, such as pronunciation, writing, and communication skills, because technology can expose learning to the outside world, allowing students to engage in conversations with people from other countries (Abbas & Fathira, 2020; Fithriani, 2021; (Fithriani et al., 2019; Kembaren, 2018; Seven, 2019; Utami & Djamdjuri, 2021; Yundayani et al., 2019)

It is stated that the success of technology in education relies heavily on how teachers perceive technology (Gimbert & Cristol, 2004). According to (McShane & Von Glinow, 2008), perception is the process of seeing information, interpreting it, and shaping how we view the world. If the information is well received, perceptions may be optimistic. In contrast, perceptions may be harmful if individuals reject and isolate themselves from stimuli (Silviyanti & Yusuf, 2015). Numerous studies have been undertaken on subjects relevant to the perception of utilizing technology in English instruction, such as the perceptions of teachers that make them inclined to utilize technology (Baek et al., 2008; Batra, 1900; Hadist, 2020; Mollaei & Riasati, 2013; Önalán & Kurt, 2020), the perceptions of teachers and pre-service teachers who hesitate to integrate technology (Bayram & Baturay, 2022; Razak et al., 2018), and the factors influencing pre-service teachers' self-efficacy in integrating technology into their classes (Bozdoğan, Derya & Özen, 2014; Kavanoz et al., 2015).

Although research on this topic is growing, only a few studies focus on pre-service EFL teachers' practices of technology integration and how they perceive in terms advantages and challenges. In order to fill this gap, the purpose of this study was to investigate the perspectives of Indonesian pre-service teachers on how to integrate technology into EFL instruction, as well as the advantages and challenges of adopting technology in English instruction, based on their experiences during a teaching practicum in a junior high school in Medan, Indonesia. This investigation addresses three research questions: (1) How do EFL pre-service teachers employ technology in English instruction? (2) What are the challenges of integrating technology into EFL instruction? (3) What are the challenges of using technology in EFL instruction?.

METHODS

The qualitative approach was used in this study. According to the Creswell (2014), the concentration of qualitative research is on gaining a comprehensive understanding of a phenomenon through the perspectives of the participants. Thus, the phenomenon in this present study's explains the use of technology and the advantages and challenges of using technology in English instruction based on the participants' perspectives.

The participants of the study were six student teachers majoring in English education who were conducting a teaching practicum at junior high school Jambi in Medan, Indonesia as part of their study requirements. Four of them are female, as indicated by P1, P2, P3 and P4, while the remaining two are male, as indicated by P5 and

P6. The participants were selected using a purposive sampling technique, through which the sample was not selected at random but instead focused on pre-service teachers who included technology in their teaching practice.

Participant observation and interviews were used for data collection in this research. Participant observation was utilized because the researcher also a pre-service teacher undergoing teaching practice at the junior high school where the research was conducted. Riyanto (2010), stated that participant observation is when the observer actively engages in a long-term aspect of the observed individual's life. At the same time, the interview was employed to determine the pre-service teachers' perceptions by asking several questions to the participants in an oral form. According to Oancea & Punch (2014), interviews are the most well-known method for collecting data in qualitative research and a great way to learn how people think and feel. The interview was conducted after the teaching practicum program was completed to collect more precise data or information, and the interviews were voice-recorded to prevent data loss. In addition to taking notes during the interview, the researcher formulated follow-up questions to obtain rich data on the participants' experiences.

Prior to data analysis, the audio recordings from interviews were transcribed verbatim. The researchers employed content analysis to analyze the data. Throughout the data analysis, we used an interpretive strategy that allowed us to read between the lines and show the multiple realities of the participants. Core themes and major concepts arose over time, illuminating participants' experiences with integrating technology into instructional practices. The process was iterative to guarantee that the facts derived reflected the participants' points of view. This data was also analysed using an inductive approach, which consisted of three distinct stages: open coding, axial coding, and selective coding. After the coding process has been completed, the researcher constructs and formulates the themes by examining the patterns between the themes in order to categorize and structure the discussion.

RESULTS & DISCUSSION

1. Implementation of technology in English Instruction

Regarding the application of technology in English instruction, the first research question focuses on how EFL pre-service teachers employ technology in their classes. The analysis of the data gathered from field observations and interviews reveals that the teachers used diverse devices for different teaching activities, as detailed in table below.

Table 1.
 The device use by the participant in implementing technology

No	Participant	Device Used
1	P1 & P2	Using laptops and projector to show lesson material in Power Point form
2	P3 & P4	Using laptop and projector to show PowerPoint presentations and games.
3	P5 & P6	Using smartphone to access a Google form during the test

Based on the data in Table 1, it can be inferred that in integrating technology in English instruction, the pre-service teachers often employ three main hardware devices such as projector, laptop, and smartphone which are common tools for college students (Donal et al., 2019). Moreover, from the table above, it is clear that

participants P1, P2, P3, and P4 use projectors and laptops as media for presenting PowerPoint and games. The participants made the following statements:

“During teaching English, the device tools that I often use is a laptop and projector for displaying my teaching materials with PowerPoint”. (P2)

“I use a laptop and a projector when integrating technology into the classroom. I use this projector to display a PowerPoint slide show which contains teaching materials designed in full color and animations moving towards the whiteboard. After that I will use an online game where the game gives students a choice of numbers containing a series of questions related to the material I just explained and each group of students must answer these questions correctly to win the game”. (P3)

Meanwhile, during the exam process, P5 and P6 utilize smartphones to access Google form.

“I use a smartphone to teach, taking advantage of the fact that the school lets students bring their own phones. I do this by using Google form as a student exam sheet, so students don't have to bring pencils or work hard to write questions and answers. Instead, they just have to click and type the answers they think are right”. (P5)

According to the participants' statements and the data from observation notes, P1 and P2 use laptops and projectors in their classrooms to access PowerPoint presentations with well-designed teaching materials. P2 and P3 use laptops and projectors to access PowerPoint and games, which are individually created by the teachers and played together by students in groups. One of the games played is *Bamboozle*. Bamboozle is a web-based program for creating fun games (Saud et al., 2022). In addition, the game display is shown on the screen via a projector and it will show several numbers are queries that each group must answer in order to win. This game will be displayed following the pre-service teachers' PowerPoint presentation the learning material. In contrast to P5 and P6, they used smartphones to access Google Forms as exam worksheets during the exam period.

Furthermore, based on their perceptions, it was clear that the existence of projector, laptop and smartphone is very helpful in the English Instruction Process. According to study conducted by (Sage et al., 2020) laptops and smartphones are educationally useful media. Similarly, using a multimedia projector to show pictures, text, or video may help both teachers and students strengthen their language skills (Amin et al., 2018). From the data, it is also known that by using smartphones and laptops, pre-service teachers get to access multiple websites and educational programs such PowerPoint, games, Google Forms. It is in line with Jati (2018), mobile phones and laptops can be utilized to access various educational programs and websites.

2. Advantages of Using Technology in English Instruction

The second research question concerns to the advantages of using technology in English instruction. The analysis of the data gathered from interviews and observation field notes reveals some themes, as elaborated and discussed below.

a. Enhance students motivation

Motivation is an essential factor in educational achievement, including English acquisition. According to Azmi (2017), most practitioners in foreign languages recognize the significance and utility of motivation in maximizing language acquisition and outcomes. Dörnyei (1998) asserted that motivating students in a language classroom is not always straightforward due to the multiplicity of psycho-sociolinguistic factors. However, several studies found that technology may affect students' enthusiasm for learning, enhance their interest and concentration, and increase classroom participation and engagement (Ackerman, 2006; Kassim, 2007; Reksten, 2000; Warschauer, 1996). As stated by two pre-service teachers,

“From what I've seen, the utilization of PowerPoint and the implementation of this game make students enthusiastic and even they requested to play the game again”. (P3)

“In my opinion, using PowerPoint makes students more enthusiastic in learning. especially PowerPoint is displayed with moving animations that sometimes make them laugh and that way it attracts their attention to listen to my explanation”. (P2)

The role of the technology device is that pre-service teachers can access games and PowerPoint, both applications in English instruction that make the classroom environment more enjoyable to encourage students to learn. In a similar vein, PowerPoint and games were effective media that could increase student motivation to study by reducing classroom monotony (Bennett, 2011; Lowry, 1999). The observations corroborate the findings from the interviews regarding the reasons why using games, and PowerPoint can increase student motivation:

- 1) PowerPoint presents the material in a visually appealing format with vibrant color and moving animations, encouraging students to follow the teaching process and accelerating their understanding of the material.
- 2) The presentation of game-based learning designed specifically in groups can motivate students to learn due to the competitive atmosphere that can captivate their attention.

Several studies substantiate the assertions made above, such as Baker et al., (2018) and Iswanto et al., (2019) assume that with PowerPoint, students will be enthused because the media display is appealing and easy to use, the text is legible, and the composition and color combinations are harmonious. Meanwhile, to describe games-based learning, Winatha & Setiawan (2020) concluded that Game-based learning makes the class cheerful and fun it can increase student motivation.

b. Improve students collaboration

Another advantage of technology use is that it improves student collaboration. Similar findings can be found in research conducted by Riasati et al., (2012) who discovered that technology improves students' collaboration skills as a communication tool that enables the user to connect to the world. Slightly distinct, this study demonstrates the role of technology in helping students improve collaboration through online games designed in groups as instructional media that require students to collaborate. As the pre-service teachers said,

“From what I see, technology can be used to increase student collaboration in learning, one of which is when I implement online games in their classes”. (P4)

“The game that I designed in teaching English consists of two groups in which only one can win the game, and this makes students work together to win the game”. (P3)

Hamdani et al., (2019) stated that team-based activities could foster greater student collaboration. Moreover, data observations indicate that technology in education makes it easier for pre-service teachers to design collaborative learning activities, mainly via the bamboozle website.

c. Improve teachers creativity

The use of technology in teaching can also enhance teachers' creativity. According to Fitriah (2018), technology assists instructors in exploring their creativity and encouraging their students' creativity by facilitating the transfer of their ideas into reality, making activities more authentic, and providing a variety of subject-specific instructional materials.

“In my opinion, based on the experience of teaching with technology develops teacher creativity because teachers to pour technology media into teaching need their creativity in presenting technology applications with attractive designs, one of which is PowerPoint and games”. (P6)

According to the preceding statements, devising and creating PowerPoint and games for English instruction can enhance teachers' creativity. Observational data also revealed that teacher creativity increased because teaching materials changed at each meeting, requiring teachers to continue to think and develop their creativity to present new teaching materials in fascinating ways.

3. Challenges of Using Technology in English Instruction

Regarding the third research question, the interview and observation data raised several important issues as barriers to the adoption and integration of technology in English instruction. The result was sorted out in the themes below.

a. Time-consuming

The biggest challenge of technology use based on the experience of pre-service teachers during the teaching practicum, is time-consuming. They felt they had no time to plan and incorporate technology into lessons because they were so preoccupied with achieving curriculum objectives. As stated by pre-service teachers,

“So, when I taught using a projector, it was wasting time because I had to set up the projector before we learn”. (P1)

“We must prepare the device before utilizing it in class. Despite this, the class did not occur at the scheduled time”. (P2)

“There is not enough time to set up all these technological tools and begin the lecture”. (P5)

The factor that causes the time-consuming integration of technology is that the instructors must prepare technological media, such as installing projectors and preparing software, before the class starts. Dang et al., (2012), found that utilizing technology to prepare for one meeting class requires an average of three to four hours. Similarly, according to Kozma et al., (2004), the most significant barriers to using computers by teachers were a dearth of planning time in the classroom and in their own schedules.

b. The lack of facility

Another challenge is the lack of facility. As corroborated by the observations and interviews, the schools and some students had no support to provide technical equipment that facilitates the use of technology in English instruction. The Participants reported the following:

“The school where i am doing teaching practicum does not provide a VGA cable, which he cable is used to connect projectors to my laptops, so i must provide our own VGA cable, in fact the cable it self quite expensive for us as students”. (P4)

“Not all students can afford smartphone, besides that the school does not provide wifi, so students have to provide their own internet package”. (P5)

The high cost of technological equipment is one reason there are insufficient facilities to facilitate the use of instructional technology. As the statement above implied, pre-service teachers must provide their technological tools because the institution does not provide them. Besides, some students can not learn using technology tools because smartphones are expensive. Some studies have found that the expense of expensive technology installation devices is also a concern for low-income institutions and participants (Coghlan, 2004; Lai, & Kritsonis, 2006).

c. Make the class less conducive

The data also revealed another challenge of technology use, making the class less conducive. These results are inconsistent with those of Bhushan et al., (2021), technology plays a significant role in creating conducive learning environments for students in which interactions between the various players in the learning system are favorable, thereby enhancing the retention of knowledge. Regarding the factors influencing these obstacles, participants present their arguments.

“Based on my experience, the use of smartphones in class reduces students' focus on lessons, because their concentration are distracted by other things such as social media and games. I often find them stealing my time through social media while I am explaining”. (P5)

“The class becomes very noisy due to their lack of understanding in using the Google form learning

application, their ignorance eventually keeps them asking questions, so I should deal with them by answering their questions one by one. As we know that students at the junior high school level are still having the attitude of impatience that is uncontrollable, sometimes it makes me feel tired of using technology in teaching process". (P6)

Based on the statements above and observational data, one factor contributing to the use of technology is that it makes the classroom less conducive because students lack technological knowledge. As a result, students make noise because they constantly question the teacher about how to use and compete to be the first one to be directed or taught by their teacher. This is supported by Bonnardel & Zenasni (2010), the use of new technology may require not only training but also a period of actual familiarization with the new system, the new computing system may be more of a distraction than a useful aid to consumers. Furthermore, using smartphones in class distracts some students from the lessons. According to Kristiwati & Irfan (2020), using smartphones has a negative effect on student concentration because students will use their smartphones for other activities rather than studying, thereby creating a non-optimal learning environment.

CONCLUSION

The findings of this study indicate that participants continue to use mainstream devices as a medium for instruction when incorporating technology. The findings also reveal the advantages and challenges of using technology in English Instruction from the perspective of EFL pre-service teachers. This study provides several suggestions to various groups involved in the education sector. Suggestions for pre-service teachers, teachers and students to be more adaptive and learn better technological skills to reduce the challenges of using technology in the classroom in the future. In addition, the government should pay more attention to schools that lack the financial resources to incorporate technology in the classroom. So that technology implementation in Indonesian education is more equitably distributed.

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