



English Pre-Service Teachers' Instrument in Facilitating Students' Digital Literacy

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Abstract The research focused on analyzing digital tools that English pre-service teachers use, how it functions, how it benefits teachers and students, and how students respond to certain digital tools. This research was done by analyzing five recorded teaching internship videos of English pre-service teacher teaching internship programs, four lesson plans and clarified by interviewing four related English pre-service teachers. This research found that English pre-service teachers did facilitate students' digital literacy by implementing several technologies during the teaching practices. Students are also left with good responses towards the activity, shown by the recorded video where the students actively participate.

Keywords: *Digital Literacy; Pre-Service Teachers; Technology; Digital Era; 21st Century.*

Abstrak Penelitian ini berfokus pada menganalisis alat digital atau elektronik yang digunakan oleh guru praktikan Bahasa Inggris, bagaimana fungsinya, bagaimana itu mendatangkan manfaat baik untuk guru dan peserta didik, dan bagaimana respon peserta didik terhadap alat digital yang digunakan. Penelitian ini diselesaikan dengan menganalisis lima video rekaman program magang mengajar, empat modul ajar dan juga diperjelas dengan mewawancarai empat guru praktikan Bahasa Inggris terkait. Penelitian ini menemukan hasil bahwa guru praktikan Bahasa Inggris memfasilitasi digital literasi peserta didik dengan menimplementasikan dan memperkenalkan beberapa teknologi selama praktik mengajar. Peserta didik juga meninggalkan respon yang baik terhadap aktifitas yang diberikan, diperlihatkan melalui hasil video rekaman praktik mengajar di mana peserta didik sangat aktif berpartisipasi.

Kata Kunci: *Literasi Digital; Guru Praktikan; Teknologi; Era Digital; Abad 21.*

INTRODUCTION

The advancement of technology nowadays has impacted contemporary society in many sectors. One of them is the education sector. The 21st century is viewed as the era of technology. It has helped many things in education and made teaching more exciting and effortless. Technology plays an essential role in human life. Teachers can use technology to make teaching media that can increase students' attraction to follow the class. The newest curriculum, Merdeka Curriculum, proposed a new education project called P5, which stands for (*Projek Penguatan Profil Pancasila*) and leads to students' active participation in producing the projects. This curriculum encourages students to work closely with their surroundings and build social character. P5 allows students to learn about important issues such as climate change, antiradicalism, mental health, culture, entrepreneurship, technology, and democracy (Harjatanaya, 2021). P5 highlighted that technology had become a concern for this new curriculum. Hence teachers should follow the new regulation to support the students' improvement. Accordingly, facilitating students' digital literacy becomes essential for Indonesian education.

Thus, it is a great chance to investigate how teacher education programs influence pre-service teachers to use technology in their future classrooms. A teaching internship is one of the educations programs the government or university provides for someone taking an education major. Pre-service teachers are expected to deliver their knowledge and skills to future classrooms (Brush., et al., 2003) cited in (Tondeur et al., 2012). English pre-service teachers are students who undergo training under specific supervision to be certified teachers (Georgios, n.d.) Pre-service teachers are identified as education major students practicing teaching in an actual field with supervision. English Pre-service teachers, specifically in UIN Sunan Ampel Surabaya, who did their teaching internship in their sixth semester, practicing in the chosen school more or less for two months. Its benefits the students to prepare themselves to face and figure out the real class environment and learn school administration requirements such as the school's style lesson plan, syllabus, etc.

Multimodality is a theory that represents the process of digital literacy. It is a field that concerns representing how individuals make meaning with different

kinds of modes. The use of computers, the internet, and web application that produces text, images, and sound for meaning-making. These practices are becoming extremely multimodal (Kress & Van Leeuwen, 1996). This theory connected to the relation with the practice of digital literacy during the class. Multimodality theory presents the idea of how each individuals deliver their thought or idea through other modes (Yi, 2014).

Some previous research found evidence that pre-service teachers feel they need more preparation to efficiently use technology in their classroom (Dren & Meelissen, 2008; Kay, 2006). Therefore, these studies indicate the importance of pre-service teachers' understanding of technology. They should not only focus on how to use the technology but how technology will be used for teaching and learning, as cited in (Tondeur et al., 2012).

Previous research stated that some pre-service teachers consider social media as belonging to their own and their learner's private lives. They do not recognize the importance of implementing social media as an educational tool that can benefit the classroom (Campbell, 2016). Followed by newest research, results from 30 English pre-service teachers' lesson plans conclude that they have several preferences for technology used to facilitate students' digital literacy. Some of them were social media such as telegram and WhatsApp. Teachers and students use these to communicate asynchronously and give instructions during online learning systems. (Nurcahyo, 2022).

Turkish research recently has found interesting results regarding the technology used by pre-service teachers. It was contrary to the previous research (Akayoglu, et al., 2020) stated that the most commonly used digital tools among pre-service teachers use was social media, Facebook, Twitter, WhatsApp, and Instagram. Encouraging specific language skills was the goal of implementing technology. These include employing various digital tools to teach listening, speaking, reading, and writing, as well as assessment and feedback. Digital tools were also used to provide more exposure about the authentic language use and to target model language. The Ninety-seven participants indicated their use of at least one of social media tools. This shown a contradiction from research conducted by (Campbell, 2016), which result shown that social media was some digital tools that isn't beneficial to use for teaching English. These previous

studies are leading this research to bring new perception to analyze and observed. These brings the gaps for this research mentioned as followed. First, not only find the preference technology used by English pre-service teachers but this research also brings up and describe in detail the process of facilitating digital literacy by English pre-service teachers in school during their period of teaching internship 2021-2022 academic year. Second, the benefits and functions of the use of technology also the responses given from the students towards the practice are also discovered. Third, as the English pre-service teachers who were following teaching internship program in the era of transformation from online learning system to offline learning. It is essential to identified the instrument that English pre-service teachers used during teaching session. It will indicate English pre-service teachers' capability of facilitating students' digital literacy. Furthermore, the instrument that they used will reflected technology comprehension level of English pre-service teachers for the reason that, English pre-service teachers are students who are trained and supervised to handle teaching and classroom management.

On the other hand, Indonesia's education still has low qualities and was not equally spread to cities and islands. Surveyed by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), Indonesia is the 10th of 14 developing countries in the Asia Pacific with low-quality education. The two factors are low-quality teachers and low student achievement. There is some evidence that caused that problem. First, it appears to be corruption. The funding ends up in corrupt civil servants' pockets civil servants and not in classrooms. Second, half of the country's teachers possess even the minimum qualifications to teach correctly, and teacher absenteeism hovers at around 20 percent. Many teachers in public schools give a private course outside work hours to improve their income (Shaturaev, 2021).

Raja and Nagasubramani (2018) stated according to modern students' latest insight, teaching using technology is preferable. Using it for teaching makes the knowledge transfer process more accessible, convenient, interactive, and effective. In the educational context, Information and Communication Technology (ICT) can increase access to education and boost its quality. As cited in (Raja & Nagasubramani, 2018), Tino declared that ICT significantly impacted

education regarding acquiring and absorbing knowledge. First, ICT tools assist in calculating and analyzing data acquired for exams and reporting students' performance. ICT encourages learners' engagement because it allows students to pick what to learn at their own pace and work on challenges from real-world scenarios, unlike memorization-based, which leads students to work actively. Second, ICT enhances student interaction and cooperation. Information and Communication Technology (ICT) encourages modifying already-existing knowledge and producing one's ability to provide a concrete, specific educational objective. ICT gives students space to work collaboratively and creatively.

METHOD

This research used qualitative research methods to elucidate the findings. The qualitative research design refers to the systematic and flexible plan or framework that guides the collection, analysis, and interpretation of data in qualitative research studies (Creswell, 2012). Thus, related to the objectives of this research which about analyze and explain the process of how English pre-service teachers facilitate students' digital literacy alongside with detail explanation about the digital tools they used, how its function, the benefits of it, and also students' responses toward the process of whole activity.

The subject of this research consists of three recorded teaching internship videos from English pre-service teachers who have finished teaching internship program which is maintained by the Tarbiyah and Teacher Training Faculty, UIN Sunan Ampel Surabaya. Beside the recorded video this research data used teachers' lesson plan which used alongside with the practices in the recorded teaching internship video.

Instruments used for collecting data in this research were smartphone, laptop, and interview guideline. Smartphone were used to contact the subject related in order to requesting a permission for conducting this research. Laptop were used to do the process of analyzing the data also make the interview guideline. Interview guideline is a list of question and protocol made by the researcher to assist the interview session with the subject. To discover the process of English pre-service teachers facilitating students' digital literacy this

research needs several data. First, Documentation towards recorded micro-teaching or teaching internship video and English pre-service teachers' lesson plan were the data collection technique for gaining the results of this research. The recorded teaching internship video helped this research to identify what technology or digital tools used during the class activity, it is also giving the whole process of how English pre-service teachers facilitate students' digital literacy. Video Log and excerpt made the process of analyzing the video becomes easier. Second, interviewing the English pre-service teachers for clarification regarding their lesson plan and recorded teaching internship video. The interview conducted towards three of the English pre-service teachers to clarify the activity that had happened in the recorded teaching internship video. This interview was obtained to gain better understanding about how English pre-service teachers facilitate their students' digital literacy.

The data analysis in this research were begin by watching three of the English pre-service teacher's videos. During the recording of video observation, note is being taken to write several important activities, minutes, and highlight where the process of facilitating digital literacy started. Then, researcher repeating the watch each by each while making the log for the video. At the same time, excerpt was made to give written image of what happened in the recorded video to the readers. However, the lesson plans here also become the source of data which can help researcher to have better understanding towards specific digital tools that being used and also to give a double check if the English pre-service teachers might leave something from their lesson plan.

RESULT AND DISCUSSION

The goal of this research was to discover and identified the English pre-service teachers instrument used during teaching practice in some school. Beside identifying several technologies used by the English pre-service teachers to facilitate students' digital literacy the process of meaning making by the students and facilitating digital literacy by pre-service teachers were also described.

In the world of multiliteracies, the focus is not only "communication" (making meanings for others and interpret those meaning according to the

experience and interest) but also “representation”. It represents and communicate via several modes, textual, visual, spatial, object-oriented, embodied, aural, and oral meanings (Cope, et al.,)

The result happened to shows all the participants (English pre-service teachers) were teaching the same grade and topic at secondary schools' level that is 10th grade and teach about Descriptive Text. There are 4 English pre-service teachers included, 6 micro-teaching recorded video, 4 lesson plans collected from all the participants. All the English pre-service teachers name and identities are hidden and replace with name initials DO, DP, S, and F. These collected data will show how English pre-service teachers are able to facilitate their students' digital literacies and how the students' response toward it.

After doing several data collection there are results that needs to be revealed. According to the micro-teaching video that served by English pre-service teacher, all of the participants which here referred to the English pre-service teachers shows the similarities of using Power Point as their media or instrument to help teach the students. Since, all the school's facilities provide complete projector to each class, English pre-service teachers are able to utilize it for teaching. The use of Power Point here is related with the previous paragraph which discussed about the several modes of communication and represent meanings. English pre-service teachers used a Power Point and LCD Projector to transfer their ideas and visualize what the teacher means.

1. Technology Used by The English Pre-Service Teacher

According to the lesson plan and micro-teaching recorded video there are several technologies used by all English pre-service teachers, here mentioned as follow:

Table 1. Type of Digital Technology

Type of Digital Technology	Name of Digital Technology
Electronic use	LCD and Projector E-Book Laptop Smartphone
Social Media	WhatsApp YouTube
Web Application	Word Wall Padlet

Software	Online ESL Games Spinner Wheel Quizziz Power Point Google Docs Canva Google Translate Mobile Dictionary Google Drive
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Based on the table 1, it is shown that all of the English pre-service teachers were using a digital tool to assist them in the process of teaching. To classify the type of digital tools used by English Pre-Service teachers. Researcher had classified the digital tools according to the general use. The classifications were electronic use, social media, web application, and software. There were several benefits and its function of each digital tools used by the English pre-service teachers explained as followed:

a) Electronic Use

According to the collected data *the most* used electronic were laptop, LCD projector, and smartphone. These three electronic or known as a gadget were mostly used because it was convenient to use. Laptop and LCD Projector are two combos that always used by all participants in this research. All schools that become the sources for this research had already installed a projector complete with the screen. However, there was an English pre-service teacher who use e-book. E-book is being use by the teacher as the additional material to teach their students. Only one from all participants who used and e-book to teach. He gives an exercise for the students by adapting the question from this e-book.

Interview quote:

“I use this to find material that is related with the topic that I want to teach, so this is also become my guidance for teaching during the class. I also use this e-book for adapting a question and giving an exercise for my students. Also, I get this book by search engine that is published by private companies.”

According to the interview it has shown that technology here functioning to help teachers' in preparing the learning activity.

b) Social Media

Social media is used by the English pre-service teachers only for communicating off the class and monitoring the students. There is no other activity that happened through social media such as online learning or others. In this part teachers had a contribution in facilitating students' digital literacy by letting them to communicate asynchronously through WhatsApp. They have a chance to learn of WhatsApp features by having a conversation through WhatsApp students are pushed to be able operate the WhatsApp. WhatsApp contributes in success of communication between teacher and students which lead to the success of learning objectives. It provides a space for students who want to ensure something to the teachers about anything that they unsure about.

Interview quote:

"I usually use WhatsApp to communicate outside the school hours if there is urgent business need to confirm about their homework or the material itself. I use WhatsApp truly for communicate with them off school hours and control their progress of the task I given. I never make an online class with my students through WhatsApp"

YouTube was as a source for the teacher to find several materials for teaching. Several participants used YouTube to find interesting learning video that served in form of animation. So that, it will easily attract students' attention.

Interview quote:

"I do think that YouTube provide many learning videos that we can easily get in accordance to our needs."

c) Web Application

There were many web applications or source used by English pre-service teachers. There are quizziz, online ESL games, wordwall games, padlet, and spinner wheel. The use of each web application was so diverse according to its function and benefits. According to several teachers with their own preference digital tools, they mentioned as follow:

Interview quote:

"I use Quizziz to brainstorm my students. Sometimes, we can use it in main activity according to the students' needs. The benefit having it in pre-

activity, it helps students to understand the topic or material that will be taught. Thus, they will not get confuse and they will be able to pictured what they will learn during the activity. If I use this in main-activity It will give the teacher knowledge about how far oour students understand the material.”

It is elaborate with another statement from the English pre-service teachers “The use of this Online ESL Games can attract students’ attention. It is really helpful. Since, if they were not giving any attention the learning goals couldn’t be achieve. Thus, I attract their attention using the games.”

According to those quotes, both of the English pre-service teachers use games for warm-up or fill the main activity. It helped to warm up the students also give students time to prepare themselves. By using online games students are allowed to operate the games by themselves and try to work on technology. There was also an English pre-service teacher who use spinner wheel for students’ sake, it mentioned as follow:

Interview quote:

“I use Spinner Wheel for dividing a group. Its function to assist me arrange a random group. So that, students did not have to choose the member by themselves. I do think that arrange the group randomly can help students to interact fairly to each member of the class and there will be no one left behind.”

It happened the same for Word Wall games and padlet. Wordwall games is similar online platform as Online ESL games and Quizziz. Mentioned by table 1.1 padlet is used by the participants. Padlet is one of web software that allows students and teacher to work in the same place. The web app provide an empty wall that has many features such as color, font, and post-note. Padlet used by participant as the platform of students’ collaboration work. Accordingly, students were asked to scan a barcode that leads them to join the padlets’ board or they can click directly to the link provide by English pre-service teacher. After all group joining the board. Each group will be able to make an empty post-note which will become the place of their collaboration work. This web application is really attracting and beneficial to be applied. Students can work with the member of the group together making their project directly on the padlet while being

monitored by the teacher directly. Students can explore and operate the padlet. They can learn how to add the image from the search engine or even putting a simple decoration to their work.

Excerpt 1:

Teacher: "Click this, then you have to write your subject, is about your place. Maybe the example of Borobudur. *Seperti itu ya contohnya. Borobudur atau taman atau apa yang lainnya.* So, after that, you have to find or you will find. *Ada tanda seperti ini (while pointing to the button on the screen) image search dibawahnya juga. Nah, kalian bisa browse secara online disini, imagenya kalian bisa milih gambarnya yang mana*".

The excerpt above pointing out the process of English pre-service teacher facilitating students' digital literacy. In this case, it is about how to operate Padlet. The interview support and clarify the activity happened in the class.

Interview quote:

"If teacher used to have e-mail and google classroom to help them collecting the tasks. I recognize that Padlet here is really helpful and it allows students to not only submitting the task. But, doing it directly in Padlet. The disadvantages of having Padlet is only, it did not have the same features as word. So, we cannot modify our writing as much as we can done in Ms. Word. Other than that, teacher can save the students' task in PDF form at once. Teacher also be able to scored their task immediately through Padlet. It is so convenient."

Besides that, participant shows how to operate Padlet to the students it showed as follow:

Interview quote:

"We only need to share the link to the students to join to the wall. They can access it immediately. Then, they can add new file there and begin to type. They also required to put detail information such as their groups' member name and group's name."

d) Software

There was many software used by The English pre-service teachers and it is various also beneficial to facilitates students' digital literacy. Each participant has different ways to facilitate their students. There are participant says that by using

power point helps them to visualize their ideas that they are going to explain to their students. In this part the process of facilitating students' digital literacy didn't happened. Almost the digital used in this section were only applied by the teachers.

Interview quote:

"I do think that Power Point can assist me while presenting my material and also help me to summarize to become more concise. We can also present something interesting rather than talk for hours like the traditional learning style did."

Excerpt 2:

Teacher: "This is your time to create your descriptive text. *Jadi, pakai member yang kemarin. So, kita tidak perlu mengacak kembali. So still, consist of 4 members. Then, create a descriptive text related to the topic jadi bisa place, people atau things and then submit your text into the canva.com and design with interesting picture. I will give you an example, apakah harus colorful it's up to you apakah harus simple it's up to you. Jadi kalau mau cepet bisa langsung create di canva and drop your text there.*"

The excerpt shows the process of facilitating digital literacy. Technology used here was Canva. After English pre-service teacher giving complete instructions, students start to work collaboratively while the teachers monitoring each group progress. In this activity students can explore how to operate Canva and use each feature available. Students will be able to express their ideas toward designing through Canva.

Excerpt 3:

Teacher: "Miss *kirim google docs link nanti kalian kerjakan disitu ya Descriptive Textnya 1 kelompok 1 tempat ya*"

Interview quote:

"I choose to use Canva because this is paper less. Then, it accessible for everyone and google document can access in one time together with others, so it is time efficient."

Participant also explains how Google Document work during the activity.

"So, firstly I send the link to the students/ Then, I also access it through my laptop, so I was able to know from the projector which one who isn't ready yet. It is also easy for me to monitor students' progress in one time."

As well as google document, google drive also has same function. According to one English pre-service teachers who used google drive, it is benefits the teachers' work to collecting students' work in one place. English pre-service teacher also allowed their students to use google translate or mobile dictionary to assist them during the activity.

2. Students' Responses Towards the Use of Technology

Almost all the interview shows good result of students' responses. Most students are happy and willing to follow teachers' instruction during the activity. Student always give responses towards every question that the teacher asked, which shown a good response from the students. Proven by several interview with the English pre-service teachers also from the recorded video of micro-teaching.

Excerpt 4:

Teacher asks : "What is described in the first paragraph?"

Student answer : "The beach has pink sand, *alasan mengapa pasirnya bisa berwarna pink*"

Teacher asks : "Then, what else? Maybe the back one. Oke let's go to the 2nd paragraph"

Student answer: "The organization, *menjelaskan spesies*"

Excerpt 5:

Teacher asks : "Who wants to answer the question? Raise your hand?"

Student answer: "*Pakai bahasa inggris atau indonesia?*"

Teacher asks : "*Inggris only, what do you know about descriptive text?*"

Student answer: "In my opinion, descriptive text is a narrative text explaining a thing with five human senses hearing, smelling, watch with eyes, ear, nose, and our hands, that's all"

Teacher asks : "Number 2, elizabeth what are the structure?"

Student answer: "Identification explain the topic in general"

Teacher asks : "Ok, or it can be to introduce"

Interview quote:

"They were happy because it is easy to access. But, there will still a problem happened. First, because everyone can access it at once sometimes the writing is mixed up." "They were so positive about the use of technology given by teachers. Overall, they give good response. They can accept and understand the instruction. On the other hand, it is according to the

teachers. If the teacher give pretty clear instruction than the students will completely understand and vice versa.”

“The students look so enjoy, because they feel unpressured if they did the task together and with the help of technology or digital tool. They work together and share ideas.”

3. Teachers' Drawback during Facilitating Students' Digital Literacy

Since, digital literacy always related to technology, the drawback occurred were probably the technology or the user which are students. However, according to the data it is resulted that almost all students already familiar with several technology. Hence, teachers did not work hard in implementing the technology and teach students how operate the technology. All of the students have the basic knowledge of operating internet and technology.

Interview quote:

“Usually not all students can collaborate nicely. Sometimes I found a student who did not contribute. Because they used to lean on their friends.”

“In the process of making the project there is no tech problem. The problem was only on the students itself. Sometimes, they did not understand with the instructions. Many students who did not understand yet regarding the use of correct tense for specific type of text. Also, it is hard to monitor students from plagiarism.”

On the other hand, the obstacles came from the students itself. There are some students who misunderstood with teachers' instruction which leading to students' confusion. Fortunately, students always ensure the teacher about something they did not quite understand.

This research resulted that English pre-service teachers utilize a wide range of technological tools in their creative practices during teaching internship such as, Laptop, LCD Projector, Internet, Videos, and Smartphone. The implementation of this technological tools has different function, it helps English pre-service teachers to transfer their creativity into reality that can be easily seen and understood by students. It is also facilitating students an area for them to work collaboratively and creatively with several technological tool served by teachers such as Padlet, Canva, Google Document, Quizziz, and many more. By giving students a chance to work on technology English pre-service teachers gave them a chance to learn how to operate and mastering certain technology.

Another important finding of this research is that all teachers make improvement from traditional method of teaching to become progressive. BSNP (Badan Standar Nasional Pendidikan) stated there are 16 principle that need to achieve in 21st century, four of them is students' centered learning, interactive learning, passive to active exploring, and from individual to collaboration or team work (Andriani, 2015). According to previous exploration by stating the point students centered, individual to collaborative learning, and passive to active learning. It is proven that English pre-service teachers at UIN Sunan Ampel Surabaya already implemented teachers' requirement in 21st century it can be seen from the results exposed. Previous research from (Yang & Wu, 2012) where the research conducted quasi experimentally revealed that the experimental group which accept the treatment indicate better progress than comparison group. The experimental group was taught using **digital storytelling** for 22 weeks of the experiment. They made progress relating to the English achievement, critical thinking, and learning motivation. Another, recent research supported that by implementing or involving technology to students can contributes to the development of students' digital literacy. (Churchill. N, 2020) by their project design research resulted that digital storytelling with mobile technologies can enabling students to (a) access information at any time and everywhere, (b) test their assumption and reflect on their thinking, (c) receive feedback from peers and teachers.

CONCLUSION

The finding of this research showed that English Pre-Service Teachers who followed the teaching internship program 2021/2022 academic year from State Islamic University of Sunan Ampel Surabaya were facilitating students' digital literacy by provide students a chance to operating several digital tools. Furthermore, all students have already familiar with the development of technology. However, it is not stopping teachers to stay facilitating students' digital literacy in this digital era by using a technology for their learning activity. Students are also reflecting good response towards every digital tool represented. Many benefits can be taken from using digital tools such as first, teachers can

change the learning style become interactive and students centered, it helped students to achieve 3C (Creative, Collaborative, and Critical thinking), and lastly it helped students to more appreciate each other.

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