Perceptions of Indonesian Teachers on Integrating Digital Technologies into Teaching Activities

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ARTICLE INFO	ABSTRACT
	Digital literacy is crucial in many aspects, especially since that most activities are facilitated by digital tools. Education is another profession in which digital literacy is vital. As time passes, teachers will be required to use digital technologies into their teaching and learning activities. The pandemic was also one of the reasons teachers were pushed to integrate teaching since teaching and learning cannot be done in the classroom. Although there are some teachers who integrated the teaching prior to the epidemic. According to the findings of this study, teachers are "forced" to integrate digital technologies into their teaching and learning activities as a result of the epidemic. Teachers commonly use digital tools such as WhatsApp, Gmeet, Quizzes, Zoom, and Microsoft Teams. Teachers use these applications to communicate with their students as well as to offer quizzes and tests. Other digital technologies utilized with the five mentioned above include Google form, Google classroom, Jamboard, Liveworksheet, Google drive, Kahoot, Microsoft sway, Instagram, YouTube, and applications particular to their respective school. Each respondent selects their own digital technology to implement based on their teaching style and the conditions encountered

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during teaching and learning activities. The majority of responders receive digital technology training from the school where they teach. They also learn new skills in integrating digital technology from their coworker.

Introduction

Many areas are emphasizing the need of digital literacy (Riddle, 2015), and the widespread use of digital tools for language acquisition is explored in numerous publications (Godwin-Jones, 2016). The ability to navigate the digital environment through reading, writing, technological abilities, and critical thinking is defined as digital literacy. While searching for, evaluating, and communicating information utilizing technology such as smartphones, PCs, e-readers, and other devices. As time passes, digital literacy will become increasingly crucial in assisting individuals to accomplish their jobs, learn, participate with their communities, and produce more helpful things for many people. Digital literacy is more than just reading online articles; it encompasses a wide range of activities performed by an individual when interacting with the digital environment. Because of its nature, it is critical for everyone to be aware of the variety of content and opportunities available online. Along with this, the need for language learners and teachers to gain digital literacy is growing. Unfortunately, Indonesian pupils' digital literacy skills are lacking. It can arise owing to a variety of circumstances, both direct and indirect to teaching and learning activities. Literacy skill is essential for pupils to succeed academically and professionally (Spires & Bartlett, 2012). They believe that in an increasingly digital environment, kids must be able to gain digital literacy abilities that allow them to select and use appropriate digital technologies.

According to an ILA (International Literacy Association) report from 2018, digital literacy is the most important topic that will be addressed in literacy instruction in the coming years. The report's data was gathered from numerous literacy educators around the world. The report

also stated that more emphasis should be placed on strategic measures to improve literacy instruction. One of the initiatives is to involve teachers in the preparation of language education that is equipped with literacy development, notably that connected to digital technology. To the best of the writer's knowledge, there have been few studies that sought to explore Indonesian teachers' use of digital technology in teaching and learning. In this study, the author polled instructors from several areas about their preferred digital technology for teaching and learning. This essay, perhaps, can be used as one of the factors teachers examine when picking digital technology for their instructional activities. Two questions were addressed in this study to determine instructors' experiences with completing educational activities utilizing digital multimedia in the context of language teaching:

1. What digital technology would a teacher choose to incorporate into their lesson plan?
2. What factors did they examine when deciding on digital tools for teaching and learning?

Literature Review
Digital Literacy
Digital literacy is an important skill to master in this era where most of the sources of information have come from the internet, which can only be accessed through gadgets such as personal computers, smartphones, and other types of gadgets. In doing so a skill or ability to search, compile, share, and filter the information will be essential for every people that use the technology. Digital literacy means having the knowledge and ability to use a wide range of technology tools for a variety of purposes (Mantiri, Hibbert, & Jacobs, 2019). According to Widona (2020), "Digital literacy is the ability to use and create technology-based content, including finding and sharing information, answering questions, and interacting with others and computer programming" (p. 2). Digital literacy is an important skill that needs to be mastered by anyone that actively uses social media, the internet, and interactive apps. Nowadays educators compete with social

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media and interactive apps, they will need to know how to effectively engage students in academics with the integration of technology. In responding to this condition some study about the investigation of student-teacher effort to integrate technology into literacy teaching has been done (Duriyah, L.T., & Zuhdi, M, 2018; Price & Dennis, 2016). Their finding reveals that the students' teachers are getting more exposure to digital technologies. "Digital literacy involves more than the mere ability to use software or operate a digital device; it includes a large variety of complete cognitive, sociological, and emotional skills which users need to function effectively in digital environments" (Eshet-Alkalai, 2004, p. 93). Educators and students have a social and professional responsibility to be digitally literate. Since the 21st-century profession heavily relies on technology for production and information processing. Educators need to be able to close the digital divide between each sub-populations of students to make sure suffice fairness and to provide students with the ability that will be needed to gain opportunities in compete on a global scale.

Students need to be well versed in Web 2.0 tools and systems management databases which are mostly used in the company to manage the database for supporting companies and businesses within our society. Companies and other organizations such as schools are seeking digitally literate employees to help them adapt to today's social conditions where most of the operations to maximize production, create new products, and manage the daily operations heavily rely on the technologies and internet. "Digital literacy consists of skills, knowledge, and understanding that enable critical, creative, discerning and safe practices with digital technologies" (Hague & Payton, 2011). To promote and apply digital literacy skills in the teaching-learning activity, teachers must be able to face and overcome the barrier that may hinder the progress of utilizing technology in the classroom effectively. The barriers that might be faced by teachers are not only limited to language, limited access, different level of experience, school infrastructure, and keeping up with the development and change of technology. Ensure the equipment working in advance,

develop a plan for managing the data, know who to call for assistance when there is a technology problem, remind students of copyright laws when producing work, and be prepared to give students help to ensure students produce good quality of work, those are some suggestion by Hague & Payton (2011) to do in using digital technology in the classroom to implement digital literacy in teaching and learning activity. The implementation of digital literacy is not only limited to operating computers or other types of gadgets. Teachers can implement digital literacy practices to engage students at a deeper level, such as reading comprehension, science exploration, mathematical computation and processing, and many other pedagogy skills.

Digital literacy can sustain and enhance the process of learning cycles through asking the question, investigating the phenomenon or problem given to them, creating new content, discussing the finding, and reflecting on the result to move on to the next steps. When students succeed in creating and producing the content in the form of new knowledge from the learning experiences, it will support their academic success and productivity in digital literacy. Teachers may find it difficult to integrate digital literacy with pedagogical activity. However, educators must be adaptable to technology use, be open-minded and willing to learn from students, and stay abreast of technological advancements, (Mantiri, Hibbert, & Jacobs, 2019). Ministry of Education will have to provide many efforts to ensure digital literacy is at the forefront in every classroom in the country since its important role in the 21st century.

Digital Literacy in Language Teaching

Driven by time and condition most teachers in junior and senior high school are starting to use digital multimedia tools to assist the teaching activity. Using digital multimedia tool teacher might teach from a different place not bound by their students' location, to optimally the function of digital multimedia tools a teacher should master the skill of digital literacy. What counts as digital literacy? Spires and Bartlett (2012) simplify the scope of digital literacy into three categories: finding and utilizing digital content, producing digital content, and disseminating digital content. These categories highlight complex skills and abilities that students must

obtain. Skills such as critical thought and value judgment are very important for locating and utilizing digital content. Likewise, creativity, innovation, and understanding of sociological context are very important for producing and disseminating digital content. Nowadays technology in teaching become the focus of many studies, some aspect that causes this to happen is the global condition that keeps changing from time to time. Through technology, students can do the learning activity just as they do in the classroom, as one of the examples in her research, Sandra Ribeiro (2015) shows that digital storytelling from a certain website can be used in language learning. Another example is, that students can be doing the group work in writing a certain report by using google document where each of the members of the group will be able to edit their work together even though they not directly meeting. The discussion as well can be done through certain tools such as g-meet, zoom, whats app, and other communication applications. The activity mentioned before also involves digital literacy during the process, where students need to utilize and find the digital content in their works when they search for the source for their works. At the end of the progress students also will produce digital content as well in the form of various texts depending on the task given to them. After they finish the task, they will need to send the text to their teacher or submit it to a specific platform organize by their school or course they belong. Based on the involvement of the three categories of Spires and Bartlett's digital literacy then the activities explained above are included in digital literacy. The activities used for the example above are based on the writer's knowledge which he got from the teachers he communicates with. Other types of activities also can be done through technology as the media to communicate and create during the learning process.

Another example is when a university has its website as the media where the educator can put the description of the learning activity, task, online meeting link, worksheet, and other aspects that will help in teaching and learning activity. Realize it or not every user of this website needs to involve their digital literacy skill in doing the activities. In the lower and

smaller unit of education organizers such as a private school in the suburb or small course, their members might still need digital literacy skills when they want to hold the teaching and learning outside the classroom where their members are spread in many places due to special condition just like during the Covid-19 pandemic for this last three years. Language learning through technology also can be done by using common communication applications such as Whatsapp, line, telegram, and other applications that most members of an education organization use. Using the application a teacher can send the material and the task. The application also can be used to guide students while they doing the task or group discussion. It can be done since most communication applications nowadays have a "Group" feature where the member can form a group and do the multi-direction communication in it, just like what they do in the discussion outside the application realm. Using technology as a means of learning will help to overcome any obstacle that might happen in the future just as in the pandemic that happens in the last three years. Due to this phenomenon, the spreading of long-distance learning is happening so fast around the world.

To complement this type of learning certain guides and other aspects such as learning books specifically designed to help the learning are needed. It should be created to help the next-generation teacher in learning how to teach in the more sophisticated era where technology plays a bigger role in every aspect of life.

Methods
Context and Participants
This research utilized a qualitative approach and took place in secondary school in some regions around Banyumas region. The participant will be selected through convenience sampling. Teachers involved in this research as a participant are teaching English as a foreign language in the secondary school. Locations of the respective school where they teach are spread throughout several regencies around Banyumas regency such as; Purbalingga, and Cilacap. As long as participants have any kind of gadget that enables them to access digital networks and data using a wireless

network to integrate digital technologies into their teaching activity then the data for this study can be taken from them. Teachers can use any kind of gadget such as a mobile phone or tablet, so they don't have to use a solely personal computer to conduct the teaching.

Digital Literacy Focus

Digital literacy related to the teaching of English in this research take focuses on the integration of digital technologies into language teaching (Dudeney et al., 2013; Hockly, 2013). In his work entitled; Digital literacy: What are they and why should we care, Hockly writes that a language teacher must teach their students about media literacy skills and digital competencies (digital literacy or other ability to effectively use the technologies at each person's disposal(2013). Instead of simply gaining practical skills in using technologies, Hockly emphasizes that digital literacy in EFL teaching will give a push and give students the opportunity for students to use and create digital products and also connect them to wider audiences of other digital readers and writers.

Data Analysis

An open-ended questionnaire is used as a means to gain data from participants. Some questions related to language teaching and digital technologies will be asked in the questionnaire. In this research, the researcher will use thematic analysis which will let the researcher approach the data freely and reduce certain theoretical assumptions. Some phrases will be used in processing the data where the researcher will categorize the result found in the coding which will follow the widest and most general of themes. In the second phase, the researcher will try to find any digital technology used by teachers. During the second phase, the researcher will code the data from participants. The third phase will be focused on reducing the themes. In the fourth phase researcher will construct an explanation of the integrated of digital technologies to the teaching activity. In every phase of data analysis, researchers will try to find which kind of digital technologies are used by teachers in digital integrated teaching and learning activity. Lesson plan from several

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respondents also analyzed to support the data gained from the questionnaire.

Finding
Whatsapp

WhatsApp is one of the most frequent digital technologies that emerge from the respondent's answers. Most of all respondents use Whatsapp in their learning activities. Although they also use other types of digital technology. Due to the limited variations of activities that can be done through Whatsapp, mainly they use Whatsapp to share the task for their students or share other information which is still related and needed for the teaching and learning activity. Some of the teachers, also use Whatsapp to greet their students and check their presence. most teachers use Whatsapp to communicate with the member of the class because it is practical and generally use even outside the teaching and learning activity. Familiarity also become one of the considerations why teacher chooses Whatsapp to be integrated into teaching and learning activity since it will take more time for the respondent to adapt to new digital technologies. Another consideration is that Whatsapp is widely used by many people, so the teacher won't be faced with any complicated matters regarding teaching their students how to use the application. Most respondents begin to use Whatsapp since the start of long-distance learning activity due to the covid-19, some of them are already using the technology even before the pandemic begin, but the frequency is not as high as during the pandemic.

Gmeet

During the long-distance learning activity, once in a while teachers still need to give their presence to their students. one way to do it is through Gmeet. Using Gmeet, a teacher can invite their students into the virtual room. In this room, a teacher will deliver the material in real-time from different places with their students. the teacher will share the screen of their computer to present the material, meanwhile, students can still listen to the material and ask their teacher in case they have questions or help from the teacher. it can be done since in Gmeet the user can operate

two ways of communication from the presenter to the listener and the other way around. based on the response from some of the respondents, they use Gmeet because it is easier for them in doing brainstorming activities. some respondents prefer to use Gmeet because they can deliver the material orally just like they do in the classroom. Another reason why several respondents choose the Gmeet is that they didn't need to prepare tasks on some specific platform and just deliver the instruction and material orally. It will give them more time to prepare the material itself instead of preparing the technology as a means to deliver the material and the task. more through Gmeet students can present the material in real-time and get feedback from their peers and also the teacher. Just like other technologies, Gmeet also has its limit to being integrated into the teaching and learning activity. To overcome the limit some respondents also use other technologies to support their online classes.

Quizziz

Just as its name implies, quizziz is an application that is mainly designed to help teachers conduct the quiz. it helps the teacher conduct the test, especially during the long-distance learning activity. This digital technology is usually used along with other digital technology. it needs to be done that way because quizziz features only cover the needs in doing the quiz. some of the respondents use quizziz to refresh their student's condition so they won't get bored during the teaching and learning activity. on the other hand, some of the respondents use this digital technology for the daily test after the teacher delivers the material. the degree in using quizzes is different depending on the teacher itself since in quizziz the user (teacher) can design the test based on their needs. the feedback from the teacher about the quiz can be given through any other technology which has more communication features such as Whatsapp, Gmeet, or even zooms. ". I usually prepare the PPT first then show it through the LCD in front of the students. Sometimes, I also use "quizzes" and ask the students to answer the questions from it". statements from these respondents show

that quizziz also can be used in offline learning inside the classroom and also can be integrated with other technologies.

Zoom

Another real-time technology that made the user can communicate from different places is zoom. almost the same as Gmeet, in zoom users, can interact with others in a virtual room. the interaction type is two ways. Using zoom teachers can explain the way they did in the classroom (orally), and they can also ask their students to present the material. some respondents prefer to use zoom because while they share the screen and explain the material to the students, they are still able to observe their students through the application since in zoom you can still see others' face that joins the room while presenting the material. It is different with Gmeet, where you can't see other's faces while you share the screen. In general, zoom is almost the same as Gmeet, what makes them different is some small features that you can use in virtual meetings.

Microsoft Team

Another digital technology that is mostly used by respondents is Microsoft Teams. The reason why they chose this technology is that it has more features designed for multi participant's real communication compare to gmeet and zoom. Respondents can choose between chat or virtual meeting."During the covid 19, I usually use the Microsoft team to interact with my students. In the Microsoft team, there are a lot of interesting features such as chat, assignment, Microsoft word, notes, etc which can help me as the teacher and the students do the teaching and learning activities", based on the respondent's statements they choose Microsoft team because it contains many features that help them in doing learning and teaching activity. So instead of using several types of digital technologies they only need one type of digital technology that has needed features. Through this technology respondents also will be able to deliver the learning material and instruction to their students.

Others

Each respondent also has other digital technology to help them in doing the learning and teaching activity along with the most use technologies mentioned before. The technologies are; Google form, Google classroom,

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Jamboard, Liveworksheet, Google drive, Kahoot, Microsoft sway, Instagram, Youtube, and application unique to their own respective school. They choose the digital technologies which applicable with their teaching style and the condition they faced during the teaching and learning activity.

One of the respondents choose youtube to help her in giving clearer and vary example of the material she delivered before the video shown. Other respondent using youtube to make the learning more fun and they also use youtube to refresh their students, so they won't get bored during the teaching and learning activity. Most of the technology such as Google form, Google classroom, Jamboard, Liveworksheet, Google drive, Kahoot, Microsoft sway and special application developed by their own schools are used as medium for them in giving their students task and test. Through those digital technologies teacher will be able to assign task and test to their students in long distance teaching and learning activity, although some of the respondents also use the technologies mentioned even before the long-distance teaching and learning activity occur due to the pandemic. One of the respondents also use Telegram as a mean to communicate with their students during the long-distance teaching and learning activities. There is also one respondent that use Instagram to support the teaching and learning activity, but the respondent did not give the explanation in how to use it in teaching and learning activity.

Discussion

The researcher also asked about teachers' training in using digital technologies. There are several answers given by respondents. Most of the respondents answered that they receive training in using digital technologies. The period in receiving the training varies from once a week to twice a year (at the end of every semester). Most of the content respondents receive from the introduction of digital technologies that apply to be used in teaching and learning activities to the way how a teacher can use it in the teaching and learning activity. Although there is one respondent that admits that he never receives the training from the

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school. He learns how to use technologies from other teachers that actively use digital technologies in their teaching and learning activities.

Each respondent has their way of using digital technologies. Most of them use digital technologies in their way of teaching as a means for communicate with their students. They also use digital technologies as a medium in giving the task and conducting a daily test, the test is mainly conducted to measure their student's understanding of the material that was just given before the test on the same day. There is also a respondent that uses a communication application to check the student's presence. The way each respondent uses digital technologies is vary depend on their class condition and their knowledge about digital technologies.

Most respondents answered that the intensity of using digital technologies during the teaching and learning activity is raising due to the covid-19 pandemic that happen in the last three years, which makes teaching and learning activities in the class is cannot be done. So they need to conduct the teaching and learning activities from different places using digital technologies. Although some respondents answer that they had already integrated the digital technologies into the teaching-learning activity before the pandemic occurred, they integrate the digital technologies due to the rule and policies of their school. During the offline teaching before the pandemic, the technologies they use are mostly LCDs installed in the classroom and speakers, that equipment were used so they can show a video or play a song related to the material that will be given. Some respondents take the video from youtube, although there are two of them that create and edit their video using FILMORA and any other video editor's application. Meanwhile, digital technologies such as zoom, gmeet, Microsoft teams, quiziz, and Whatsapp are rarely integrated into the teaching and learning activity back then during the offline teaching and learning activity. From respondent's lesson plan it is show that the use of technologies also mentioned in the teaching and learning activity, although the detail about how they use digital technologies in not clearly explained.

Conclusion

Due to the pandemic, the integration of digital technologies is rising. The government's decision in making the teaching and learning activity into the long-distance also affects the phenomenon. Teachers need to adapt in integrate the technology to the long-distance teaching and learning activity. They will need the technologies to communicate with their students, deliver the material, assign a task for their students, and even test their students. Based on the data obtained for this research some of the technologies used to fulfill the needs mentioned are; Whatsapp, Gmeet, Quiziz, Zoom, and Microsoft teams. Some respondents also answer that they use an application created by their school to help them in long-distance learning and teaching activity. Although not all school created their application to help their teacher. Most of the respondents use digital technologies as the medium in conducting teaching and learning activities. Respondents in this research only explain the way how they integrate the teaching and learning activity in general, information about how they integrate it in specific teaching and learning activity was not mentioned by the respondents. The lack of questions that investigate how teachers integrate digital technology into the specific learning activity is the cause why respondents didn't give the specific answer. Further research about the integration of digital technologies into specific learning activities is needed. From the result of this research where the integration of digital technologies is mostly done in the long-distance teaching and learning activity. Another research to find out how teachers integrate the digital technologies into the normal classroom condition where the teaching and learning activities done in the classroom need to be done. The integration of digital technologies into the teaching and learning activity can be viewed from any perspective, so another research about it needs to be done to help teachers gain more references about this particular topic.

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