

# Teacher's Use of Technology as Instructional Media

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## ABSTRACT

**One of the key elements in advancing the teaching and learning process in a classroom is technology. It can assist the instructor in giving the class a better lesson. Technology plays a vital role in education since it allows teachers to access some materials including playing videos, songs, movies, and even theatrical productions. It was found that a large number of teachers did not use technology in teaching. The objective of the study media was to investigate the teacher's use of technology as instructional media. Interviews and classroom observation were used to collect the data. The participants were 11 teachers from one private school in North Sumatra. It was found that almost five teachers did not use technology in teaching. The platforms they used mostly were Canva, Powerpoint, quizzes, and YouTube. The reasons were the lack of facilities and the inability to use technology.**

**Keywords:** technology, instructional media, teachers' perspective

## 1. Introduction

Globally, the impact of technology on learning in the classroom is increasing. Technology's widespread availability locally and worldwide has made it a standard feature of the current educational system everywhere. Technology provide some information which was needed by both teachers and students (Altun, & Ahmad, 2021). The conventional classroom is no longer the major site for learning since the learning field has changed so quickly. Using e-learning apps and technology to improve learning is not new (Nguyen, & Habók, 2024). Both teachers and students now frequently utilize the Internet and its various gadgets, including cell phones and personal computers.

However, while attempting to incorporate technology into their teaching, teachers continue to run across some obstacles (Wright, & Wilson, 2011). Most of the teachers in Indonesia were proficient in using technology as instructional media. They have difficulty accessing and using technology. Technology was not being used effectively as a teaching tool, resulting in many schools continuing to teach pupils the same things they taught for two decades (Ndibalema, 2014).

This causes the quality of learning to decline and low innovation in using technological media in learning. Learning tends to be monotonous, repetitive, and passive (Pakpahan, 2024). The use of technology in schools can be realized as instructional media. Instructional media functions as a tool used to convey information from the source (teacher) to participants (students) by activating their senses. Teaching media can help improve the quality of student learning outcomes. Selecting correct and appropriate teaching media can help meet students' learning needs, and enhance the learning atmosphere and student learning motivation. Moreover, using technology enhances the students' higher-order thinking (Wijnen, et al.,2023).

Technology-based instructional media is one of the teaching media that can be integrated according to students' learning needs. Utilizing technology, educational materials can display resources like space, fire, or snow that are hazardous or challenging to access. Teachers who know how to present and use educational technology enhance student performance (Golonka, et al., 2014).. Moreover, it prepares the students to face challenges in the industrial era. Teachers remain the most important factor in determining the appropriate and efficient use of technology. Improved student performance in using technology is mostly dependent on teacher training in applying and using technology.

The inability to use technology as instructional media might be caused by a lack of training provided, time for learning and planning the instructional media, and technology accessibility and support. Training is required to help teachers overcome their incapacity to use computers and other technology. It is anticipated that teachers will employ technology with the assistance of coaching and

training. In addition to being necessary for efficient learning, technology-based training also helps teachers and students become more interested in the subject matter they are teaching. Teachers and participants are urged to study and advance their skills following the training theme. Teachers are supposed to be more skilled in utilizing technology to create instructional materials that simplify learning for pupils after receiving training.

Teachers at one of the senior high schools in North Sumatra also experience obstacles to using technology. This school received a red report card from the Ministry of Education regarding digitalization. The teacher's ability to use technology is the cause. This school has only been established for approximately 5 years. Many teachers have difficulty creating interesting learning media. Therefore, learning in class becomes monotonous and unpleasant.

The study aimed to investigate teachers' use of technology as instructional media. It investigated how teachers apply technology in their classrooms and what type of technology they use. In other words, it examined whether or not technology is a common practice in the learning process.

## **2. Method**

This study used qualitative research that included interviews and classroom observations. The participants in the study were 11 teachers from one of the private senior high schools. The school has only existed for 5 years. Most of the teachers were fresh graduates and had been teachers for about 1 to 4 years. The teachers taught different subjects and had different backgrounds. To collect the data, first, the researcher did the classroom observation. The observation was done to investigate the types of technology that the teachers use and the way they use it as instructional media. Field notes were used to record while doing classroom observation. The result of the observations was used to design questions for the interview.

The interview was semi-structured with 5 questions regarding teachers' perception of technology use during the observed lessons. The interview was audiotaped and transcribed to make sure no data was left. Ten females and 1 male were interviewed. They were divided into 4 groups which consisted of 2-3 persons. The interview was in Bahasa Indonesia to make sure the participants understand and prevent misunderstandings.

## **3. Result/s and Discussion**

The observation was done in three days. After the classroom observations were evaluated, 5 open-ended questions were designed. The researchers assigned pseudonyms for each teacher participant. The result of classroom observations and interviews was described as follows: Of 11 teachers, 6 teachers (Ani, Beni, Cherry, Dinda, Ely, and Fira) used technology as instructional media. The students in those teachers' classes were more active in asking and accessing the material. Of the 6 teachers, Ani, Cherry, and Dinda used Canva, Ely, and Fira used PowerPoint, and Beni used Quizzis and YouTube. Beni, Dinda, and Ely allowed the students to use their mobile phones to access their material, answer questions, and submit their tasks. In Beni's and Dinda's classes, not all the students brought mobile phones. Beni provided a link for his material, so the student could access it after the class. While showing the YouTube, he invited the students to sing a song as an ice-breaking. Five teachers, except Ani, used collaborative work so the students could help each other. Moreover, the students who did not bring mobile phones could see the material through their friend's phone. One student in Dinda's class was sick, he could not join the learning process well. Only 23 of 28 students in Ani's class attended the class.

The other five teachers (Gempita, Hermina, Indira, Jessica, and Kirana) did not use technology while teaching. Jessica preferred using games over technology. The students in Jessica's class followed her instructions. The other four teachers used the lecture method to explain the material. When Hermina taught, three students kept talking and ignored Hermina's explanation. Nevertheless, Hermina did not notice it. In Indira's and Kirana's classes, the students were calm. They would reprimand the students if they discovered the students were not paying attention to her. Gempita had a gentle voice, the students who sat at the back could not hear her. The class was noisy and Gempita could not handle it. Indira used the question-answer method after lecturing. Since her class was in its final meeting, she made a verbal quiz. The students could go home, only if they could answer the questions.

For the interview, the participants were divided into 4 small groups. The first group was Ani, Cherry, and Fira. The second was Beni, Dinda, and Ely. The third was Kirana and Indira and the fourth was Gempita, Hermina, and Jessica. The first group used technology as instructional media.

Ani stated that her students were more active and easier to manage when she used technology. The students gave their attention to what was being done in the classroom. Technology can help to get the students' attention. Cherry and Fira were new teachers. They felt helped when they used technology. Technology helped them prepare the materials and learn more about the topic. The second group allowed the students to use their mobile phones. Beni wanted to show the students how to use mobile phones effectively. He thought that school could be one of the places that prepared the students to face the challenges of using technology. The teacher should be a role model to control the use of technology.

Dinda stated that when she was a student, she liked to see the teacher who brought any media to the class. Media could help the teacher interact with the students. The communication would go smoothly. The class would be managed and controlled easily. Ely agreed that technology helped to connect the teacher with the students. Kirana and Indira were old teachers. They tended to use the lecturing method as it was easier to apply. Kirana stated that she felt unable to access or use technology anymore as she was quite old. Indira would be retired a few months later. She did not want to waste her time to learn about technology anymore.

Gempita, Hermina, and Jessica were in the fourth group. Gempita admitted that she did not have any gadgets. Therefore, it was difficult for her to learn to use technology. The school provided a laptop and a projector. However, given the large number of teachers, they were insufficient. Hermina and Jessica were pursuing their master's degree. They stated that they were quite busy. They did not have enough time to use technology to prepare the materials. Nevertheless, Jessica used manual games instead of technology. Jessica admitted technology provided the materials that she needed. In some cases, using technology helped the students to learn visually. The result of classroom observations and interviews showed a connection between teacher perspective and teacher use of technology. It referred to some previous research which was found (Kim et al., 2013; Shifflet, & Weilbacher, 2015). The teachers shared their perspectives about the use of technology. Some of the advantages of using technology were the ability to manage the classroom and to increase student engagement.

#### 4. Conclusion

This study indicates that using technology in the classroom enables the teacher to teach the students using a variety of techniques. Facilitating themes and supporting the teacher with the materials is highly beneficial. Unfortunately, the lack of training and technical gadgets in Indonesian schools became a problem. Teachers in Indonesia appear to be facing a grave scenario when it comes to using technology as instructional media to improve the quality of learning. Some obstacles faced by the teacher hinder them from applying technology. Technology plays a significant role in modern life, particularly in teaching and learning. We must remember that kids may use technology to their advantage to access learning websites, expand their vocabulary, and finding some resources regarding to their lesson. In general, because of its significance and efficacy, technology must be utilized in the classroom.

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