Utilization of Smart TV Technology to Support the Learning Process at SD Supriyadi 02 Semarang

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Abstract
This study aims to determine the use of Smart TV technology in supporting the learning process at SD Supriyadi 02 Semarang. Smart TV is used as a learning medium to enrich learning methods in class. The research method used was observation and interviews with one research subject, who was randomly selected. The results of the study show that the use of Smart TV can maintain students' focus and make them more enthusiastic about learning. This can be seen from the observation that students do not talk to themselves when learning takes place and do not disturb their friends who are also participating in learning in the classroom. Learners focus on the material delivered by the teacher through a smart TV, which displays learning videos about advertisements. In addition, students also become sleepy during learning because the material presented on Smart TV is attractive to them. Based on the research results, the use of Smart TV technology can be an alternative to improve the quality of learning at SD Supriyadi 02 Semarang. However, this research was only conducted on one subject, so further research is needed with a larger sample to test the effectiveness of using Smart TV as a learning medium in class.

Keywords: Utilization, Technology, Smart TV, Learning, SD Supriyadi 02 Semarang.

INTRODUCTION
Education is a strategy that is planned systematically to develop human qualities through socialization, character building, and intellectual ability training, so that students can reach maturity (Mustoip, Japar & Zulela, 2018). National education functions to develop abilities, shape character, and improve national civilization in order to achieve high dignity. The aim is to educate the life of the nation by optimizing the potential of students so that they become human beings who believe in and are devoted to God Almighty, have noble character, are healthy, knowledgeable, capable, creative, and become democratic and responsible citizens (Dewi, Kartinah & Aaron, 2019).

In an effort to improve the quality of education in Indonesia, many schools have implemented technology in the learning process. According to Sukamto & Wardani, teachers are currently required to keep abreast of technological developments so that the lessons delivered are in accordance with the developments around them. The development of the times is unavoidable and needs to be addressed with anticipation. For example, developing supporting media according to the characteristics of elementary students can be evidence of anticipation of ongoing environmental changes (Sukamto & Wardani, 2016). One technology that is now starting to be widely used is Smart TV, a smart television technology that is equipped with the internet and learning support applications. Smart TV is a different device from traditional television because in addition to being able to display images and sound in real time or at that moment, Smart TV can also connect to the internet so that it allows us to choose the shows we want to see, save shows, and even buy the shows we want. not yet aired or already aired (Grain, Nur & Azizah, 2020).

SD Supriyadi 02 Semarang is one of the schools in Semarang that has implemented Smart TV technology in the learning process. However, there is no research that examines in depth the use of Smart TV technology in the learning process at this school. Therefore, this study aims to examine the use of Smart TV technology in supporting the learning process at SD Supriyadi 02 Semarang.

Utilizing smart TV as a learning tool provides authentic opportunities for students to learn using real-world media. In addition, this can also increase students' awareness of the world of electronic communication, which is
always evolving, as well as enabling students to have a better understanding of the material being studied, which can then help them build a bright future. By using smart TVs, students can watch movies, listen to music, or work with digital media using the best teaching resources (Pradipta & Mustofa, 2020).

The use of Smart TVs connected to the internet and laptops can enrich learning materials in various forms, not only human-based but also print-based, visual, audio-visual and computer-based, even a combination of all of these can be done. Lack of sources of information for learning can hinder the achievement of goals in the learning process, so that a strategy is needed in the learning process, one of which is by utilizing learning media as a tool in conveying material. The use of technology-based learning media facilitates the learning process in terms of effectiveness and efficiency (Up to the company, 2020).

The urgency of this research is related to the importance of using technology in the learning process, especially in improving the quality of learning. In today's digital era, technology is an integral part of everyday life, including in the learning process. Therefore, it is necessary to do research to find out how far the use of Smart TV technology can support the learning process at SD Supriyadi 02 Semarang.

In this study, the problem that arises is the extent to which the use of Smart TV technology in the learning process at SD Supriyadi 02 Semarang can provide benefits for students and teachers, as well as what obstacles are encountered in utilizing this technology.

**METHOD**

This research uses a descriptive method with a qualitative approach. Data was collected through three data collection techniques, namely interviews with teachers and students, observation, and documentation. According to Lexy J. Moleong, interviews can be interpreted as a form of conversation that is carried out with certain goals. In this method, researchers and respondents meet directly (face to face) to obtain information orally with the intention of obtaining data that can explain the research problem (Moeloeng, 2017). Interviews in this study were used to obtain information from teachers and students regarding their experiences and perceptions of using Smart TV technology in the learning process.

Observations are used to see directly the implementation of Smart TV technology in class and see how far this technology is used in the learning process. Creswell argues that observation is a process for obtaining direct data by observing people and the environment where research is carried out. In observation, data is obtained from sources that are direct and not through intermediaries or interpretations from other people (Creswell, 2014).

According to Arikunto, documentation refers to the process of finding and collecting data from various sources such as notes, transcripts, newspapers, books, minutes, meetings, and agendas. These things are examples of documents that can be used as reference material in research (Arikunto, 2010). Documentation in this study is used as evidence and strengthens the validity of the research (credible).

In this study, the subjects taken were fifth grade students at SD Supriyadi 02 Semarang. Subjects were taken randomly by selecting 2 students from 20 students in class V as subjects in this study. One of the students selected as the research subject was subject 1. The selection of these students was carried out to represent the results of research from one class.

The data that has been collected is then analyzed using a qualitative approach, namely descriptive analysis, where the data is analyzed descriptively and the results are explained narratively. After that, the research results are presented in the form of a report which includes an introduction, results and discussion, and conclusions.

**RESULTS AND DISCUSSION**

This study aims to study how Smart TV technology can be used to support the learning process at SD Supriyadi 02 Semarang. This research began by observing S1 and S2 to get clear results about the use of Smart TV in the learning process. After the observation was completed, S1 and S2 were interviewed to obtain their opinion regarding the use of Smart TV.
Then proceed with observing the teacher and interviewing him in utilizing Smart TV technology to support the learning process in class.

The first step taken by the researcher was to make observations on subject 1 during the learning process in class by using Smart TV technology on material about advertising.

**Observation Results**

<table>
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<th>Observation Results</th>
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<tr>
<td>During the learning process, subject 1 focused on the teacher's explanation delivered via Smart TV, so he didn't have conversations or chats with classmates.</td>
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</table>

When observing S1 in the early stages of learning, these students did not seem to be talking alone and were focused on the material being taught by the teacher through the Smart TV learning media which displayed learning videos about advertisements. Students are not sleepy during learning because they are interested in the material presented via Smart TV. This is supported by S1's statement in the interview results which stated that he was very interested in the material presented through Smart TV.

**P:** How do you feel teachers use Smart TV technology in the learning process?

**S:** I like to use Smart TV in learning because it is more exciting and different than usual. I can also watch videos and study while looking at pictures the greater one.

**Figure 1. Observation of Learning Process**

In addition, during learning, students do not disturb classmates who are also participating in learning. This is in accordance with the results of observations recorded in the following table.

<table>
<thead>
<tr>
<th>Observation Results</th>
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<td>During learning using Smart TV, Subject 1 was never seen playing with friends.</td>
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From the observation results, it appears that Subject 1 was not involved in conversations with his friends while learning to use Smart TV. Even though his classmates tried to make fun of him, Subject 1 remained focused on learning through Smart TV. This is also supported by the following interview excerpts.

**P:** Do you often chat and invite your friends to play during the lesson?

**S:** Never

**P:** Do you think the use of Smart TV technology improves the quality of learning?

**S:** Yes, I feel that learning is more fun and easier to understand with Smart TV. I can also see pictures and videos more clearly.

From the results of interviews and observations, it is known that undergraduate students do not play during learning and focus on the teacher's explanation through Smart TV. In addition, during the lesson, these students did not disturb their classmates who were also studying, according to the observations recorded in the table below.

<table>
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<th>Observation Results</th>
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<tr>
<td>The subject is very focused on watching the material provided by the teacher during learning.</td>
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The observation results show that Subject 1 is very focused on the material provided by the teacher and watches it through Smart TV as a learning medium. The subject's reaction to the use of Smart TV also looks happier and more enthusiastic. This is based on the interview as follows.

**P:** How do you and your friends react to the use of Smart TV in the learning process?
S: I am and friends very happy use Smart TV in learning. We feel that the material presented is easier to understand and more enjoyable.

P: Do you think the use of Smart TV technology is effective in improving student learning outcomes?

Teac: Yes, I think it's effective. Learners more easily understand the material and get better information when using Smart TV in learning.

P: Are there any problems with using Smart TV?

Teac: There are no significant obstacles, the problem may be that the internet connection is sometimes unstable.

Based on the results of interviews conducted with a teacher and two students, Smart TV technology has a positive influence on the learning process at SD Supriyadi 02 Semarang. The teacher revealed that the use of Smart TV as a learning medium can help students to be more interested in and participate in learning. In addition, Smart TV also makes it easier for teachers to display various learning resources such as videos, images, and learning support applications.

In the view of students, the use of Smart TV as a learning medium provides a more interesting and enjoyable learning experience. They can also more easily understand the subject matter because it is displayed in a more interactive visual and audio-visual form. However, they also acknowledge that there are limitations in using Smart TV technology, such as
as limited internet access and poor network quality in their area.

Overall, Smart TV technology is considered an effective learning medium and enriches the learning process at SD Supriyadi 02 Semarang. However, efforts are still needed to overcome the problems associated with the use of this technology, such as limited internet access and poor network quality.

CONCLUSION

The results of this study can be concluded that Smart TV is an effective and interesting learning media for students. Through the use of Smart TV, students become more focused on the material presented and do not experience drowsiness during learning. In addition, Smart TV also assists teachers in delivering learning material in a more interactive and fun way for students.

In the observation results, it appears that students do not play and do not disturb their classmates during learning using Smart TV. This shows that Smart TV can increase students' concentration during learning. In addition, the results of interviews with students also showed that they liked learning through Smart TV because the material presented was more interesting and easier to understand.

From these conclusions, it can be concluded that the use of Smart TV technology can increase the effectiveness of the learning process at SD Supriyadi 02 Semarang. It is hoped that by continuing to utilize this technology, the learning process in schools can become more interactive and enjoyable for students, so as to improve the quality of education in Indonesia.

SUGGESTION

Researchers admit that this study has many shortcomings. Therefore, for future researchers, it is suggested to conduct more in-depth research with a focus on identifying the special needs of students who have a variety of learning styles and academic abilities. It is intended that learning content on Smart TV can be more personalized and support learning diversity. In addition, future research needs to deepen the analysis related to technical barriers, such as the availability and reliability of internet access in school areas, and provide alternative solutions to overcome the problem of lack of network access. Future researchers are also expected to involve a larger control group in order to increase the validity of the findings, as well as investigate external factors that may influence the results of the study, such as the influence of the home environment and parental support. In addition, further research should identify and explore the potential use of Smart TV in a creative cross-disciplinary learning approach, so as to arouse students' interest and curiosity towards various subjects.

THANK YOU

On this occasion, the researcher would like to express his sincere gratitude to SD Supriyadi 02 Semarang for his extraordinary cooperation and support in this research. In addition, the researchers also express their deep gratitude to all academic staff of the PGRI Semarang University Pre-service Teacher Professional Education Program who have provided valuable time, knowledge, and encouragement to researchers.

The researcher is very aware that without the help and support from all parties, this research will not be successful. Close collaboration with SD Supriyadi 02 Semarang provides an opportunity for researchers to further explore the use of Smart TV technology in supporting the learning process at the elementary school level.

Thank you for being willing to provide access and opportunities to involve students and teachers in this research. The support from all PPG academic staff at PGRI Semarang University has a very important meaning for researchers in facing challenges and overcoming obstacles that arise during the research process.

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Researchers once again thank profusely for the cooperation, support, and valuable
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BIBLIOGRAPHY