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Implementation of Digital Literacy in Learning at SMK Sore

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ABSTRACT

This study aims to describe the implementation of digital literacy in learning at SMK Sore. This research is a qualitative case study research. Data in this study is by observation, interviews, documentation, and artifacts. Data analysis in this research is the transcription and codification of interview and observation data, identification, and analysis of document data and artifacts. The results of this study show that implementing digital literacy in learning conducted by SMK Sore is very good for teachers, students, and schools and can also facilitate teaching and learning activities.

Key words: Communication, Digital Literacy, Learning

INTRODUCTION

Education in the digital era is increasingly essential in facing today's global challenges. Information and communication technology development has significantly impacted how we learn, access information, and interact with the world around us. Digital literacy has become vital for future generations(Silalahi et al., 2022).

Digital literacy can be defined as a person's ability to use digital technology effectively, critically, and responsibly. Through digital literacy, individuals can understand, evaluate, and utilize various digital media and existing technologies. In education, implementing digital literacy is the key to preparing students to adapt quickly to technological changes that continue to develop.

Learning that integrates digital literacy offers excellent opportunities for students to develop skills relevant to an increasingly connected world(Ginting et al., 2021). In this context, teachers play an essential role in guiding students in understanding, using, and analyzing information found in the digital world. Thus, teachers need to

integrate technology into the learning process so that students can develop a deep understanding of various aspects of technology and use it productively.

Implementing digital literacy in learning can also increase student creativity(Silvana & Darmawan, 2018). With easy access to various digital media, students can actively participate in creating content, such as videos, presentations, or blogs. It allows them to explore their creativity, hone collaboration skills, and develop their understanding of digital ethics and copyright.

However, implementing digital literacy also poses challenges that need to be overcome. One of them is the gap in access to technology. Not all students have the same access to digital devices and a stable internet connection. Therefore, there needs to be ongoing efforts to ensure that every student has a fair opportunity to develop their digital literacy.

Implementing digital literacy in learning has great potential to improve the quality of education in the digital era(Nasrullah et al., 2017). By integrating technology into the learning process, students can develop skills relevant to the needs of the times. However, collaborative efforts from teachers, schools, and the government are also needed to ensure all students' equal access and development of digital literacy (Pratiwi & Pritanova, 2017). In this way, we can form a generation that faces challenges and takes advantage of opportunities in this digital era.

Vocational Schools are vocational high schools that need digital literacy in their learning process; this is by the various departments at Vocational Schools, one of which is Sore Vocational School, which has a major.TKJ (Computer and Network Engineering), TITL (Electric Power Installation Engineering), TPm (Machining Engineering), TBSM (Motorcycle et al.), DPIB (Modeling et al.), TKRO (Automotive et al.), TEI (Industrial et al.), TP (Welding Engineering)(SMK Sore, 2022).

Several theories are relevant in implementing digital literacy in learning; one is the constructivism theory, which can be used to support the understanding and implementation of digital literacy in learning.

Applying theory to implementing digital literacy in learning can help teachers and educational institutions design learning experiences that are more effective and relevant to the ever-developing digital world. By understanding the theoretical foundations underlying digital literacy, teachers can design teaching strategies that enable students to develop the digital literacy skills necessary in their lives and careers. From the explanation above, the problem in this research can be formulated as how to apply digital literacy in learning at SMK Sore.

LITERATURE REVIEW

Constructivism theory emphasizes that learning is an active process in which students construct knowledge through interaction with the environment(Suparlan, 2019). In digital literacy, constructivism theory can be applied by encouraging students to interact with digital technology and build their understanding through exploration, collaboration, and reflection. Teachers can act as facilitators in learning, helping students build their knowledge through technology.

Social constructivism theory emphasizes that learning occurs through social interaction and collaboration with other people (Mahananingtyas, 2018). In the context of digital literacy, social constructivism theory can be applied by encouraging students to work together on digital projects, share knowledge, and provide feedback to each other. Collaboration in a digital environment can improve students' understanding and broaden their perspectives on issues related to digital literacy.

Technology-based constructivism theory emphasizes the importance of using technology to facilitate constructive learning(Achzab & Wawan Budiyanto, 2017). This theory considers technology as a means to access information, communicate, collaborate, and create relevant content. Implementing digital literacy in learning can adopt this approach by considering how technology can effectively facilitate constructive learning.

METHOD

Design and Samples

This research will use a qualitative approach with a focus on a case study in a school to gain an in-depth understanding of the digital literacy practices carried out by teachers and students' responses to this implementation. This research emphasizes implementing digital literacy in learning engineering mechanics subjects in the DPIB (Building et al.) department. The first participant selected in this research was an engineering mechanics subject teacher, a teacher who is active in using digital technology in learning and implementing digital literacy. The second participant was a student involved in a learning experience involving digital literacy in engineering mechanics subjects.

Instrument and Procedure

The first data collection in this research was by observation, namely observing learning activities involving digital literacy carried out by teachers and students' responses during the learning process. Second, interviews with teachers to gain an in-depth understanding of their teaching strategies, their challenges, and the benefits of implementing digital literacy. Interviews were also conducted with several students to get their perspectives on learning experiences with digital

literacy. Third, with documents and artifacts, namely collecting related documents and artifacts, such as lesson plans, student assignments, and student work products created through digital literacy.

Data Analysis

The first data analysis in this research is the transcription and codification of interview and observation data; the second is the identification of themes and patterns that emerge in the data; the third is analyzing document and artifact data to support the findings from interviews and observations.

RESULTS AND DISCUSSION

Digital literacy is an individual's ability to use, understand, and analyze information found in the digital environment. The application of digital literacy in vocational schools can cover various aspects. Vocational schools often provide ICT (Information and Communication Technology) subjects, which include a basic introduction to hardware and software, use of productivity applications, programming, graphic design, and knowledge of computer networks.

SMK Sore can provide an understanding of the importance of digital security, including data security, privacy, and wise use of social media. It includes knowing solid passwords, avoiding online fraud, managing privacy settings, and implementing appropriate digital security measures.

Media literacy involves wisely accessing, analyzing, evaluating, and creating media content. Vocational Schools can teach students essential skills in understanding information sources, recognizing fake news, understanding media perspectives, and using social media responsibly.

SMK Sore can introduce students to various digital tools and applications relevant to their field of study. For example, students can use professional design software such as Autocad in the architectural field. Vocational Schools can also teach students about ethics and practical communication skills in a digital environment. It includes understanding the professional use of e-mail, online communication etiquette, and netiquette, as well as the ability to collaborate and communicate effectively via digital platforms.

Evening Vocational Schools can encourage students to develop additional digital skills such as programming, web design, digital project management, data analysis, and application development. It enables students to acquire skills relevant to the latest information technology developments and prepares them for an increasingly digital world of work.

In implementing digital literacy in vocational schools, schools need adequate infrastructure and resources, such as stable internet access, adequate hardware, and adequate training for teachers to integrate technology into learning.

Increasing students' skills regarding implementing digital literacy in learning can provide opportunities for students to develop skills relevant to the digital world. Students can learn how to use digital technology effectively and creatively. They can develop skills in information retrieval, digital resource evaluation, data analysis, and technology-related problem-solving. Digital literacy also helps students understand digital ethics, online security, and copyright to become responsible and intelligent users in a complex digital world.

Increasing the involvement and motivation of students using digital technology in learning can increase student involvement and motivation. Digital literacy allows students to engage in active learning, create digital content, collaborate with fellow students, and get real-time feedback. It provides a sense of ownership of their learning and encourages students' intrinsic motivation to learn. In an environment that uses digital literacy, students can feel more connected to the learning material and more motivated to achieve learning goals.

Contextual and relevant learning about implementing digital literacy in learning allows teachers to create contextual and relevant learning experiences. Teachers can use digital technology to connect lessons to the real world, provide concrete examples, and bring real problems into the classroom. Students can learn and apply academic concepts through digital tools relevant to their daily lives. It helps students understand the importance of learning and provides a more meaningful context for the knowledge they gain.

Improving collaboration skills regarding the implementation of digital literacy encourages student collaboration skills. Through digital technology, students can collaborate with fellow students on digital projects, share ideas, provide feedback, and work together to achieve learning goals. This collaboration expands students' understanding of teamwork, effective communication, and problem-solving in digital contexts. Students also learn to appreciate and respect the contributions of others and develop social skills necessary for working in teams.

Challenges and ongoing development regarding the implementation of digital literacy are also faced with challenges that need to be overcome. These challenges include technological access gaps, teachers need more skills in integrating technology into learning, and the need to update skills given rapid technological advances. Implementing digital literacy in learning requires commitment from the government, educational institutions, teachers, and students to overcome these challenges and sustainably develop digital literacy skills.

By paying attention to and overcoming these challenges, implementing digital literacy in learning can significantly benefit students. It helps them develop the

skills necessary to succeed in the digital era and prepares them to become intelligent, critical, and responsible digital citizens.

Implementing digital literacy in schools involves a series of steps and activities aimed at integrating digital technology into the learning process and developing students' skills and understanding related to the use of technology. The following are several important aspects of implementing digital literacy in schools:

Schools need to ensure that they have adequate infrastructure to support the use of digital technology. It includes stable internet access, hardware (computer, laptop, tablet), and software that suits learning needs. Additionally, it is necessary to ensure that students and teachers have equitable access to digital devices and resources.

Teachers play a crucial role in implementing digital literacy. Therefore, schools must provide adequate teacher training regarding technology, digital learning applications, and teaching strategies involving digital literacy. This training must be ongoing to keep up with changing technological developments.

Digital literacy must be integrated into the curriculum and daily learning. It can be done by creating contextual and relevant learning using digital technology to access, manipulate, and analyze information. Learning can involve collaborative projects, digital content creation, online research, and critical evaluation of digital resources.

Evaluation of students' digital literacy skills is also essential. In addition to traditional academic assessments, schools can use evaluation methods, including digital literacy skills, such as digital content creation, multimedia presentations, or digital tools, to complete learning tasks. It allows teachers to monitor students' progress in digital literacy and provide appropriate feedback.

Implementing digital literacy also involves digital awareness and security. Schools must provide relevant education on digital ethics, online safety, privacy protection, and protection against cyberbullying. Students also need to be given an understanding of how to use technology responsibly, recognize inaccurate or invalid information, and respect copyright and intellectual property.

Collaboration between teachers, students, parents, and the community is crucial in implementing digital literacy. Schools can forge partnerships with outside organizations, technology companies, or industry experts to enrich students' digital literacy experiences and provide an understanding of the latest developments in the digital world.

Implementing digital literacy in schools focuses on developing students' skills and understanding of using digital technology effectively, critically, and responsibly. It allows students to learn and adapt to continuous technological changes and helps them become intelligent and competitive digital citizens in the future.

Digital literacy has many significant benefits in the learning context. Through digital literacy, students can access extensive and varied information resources online. They can research online, access scientific journals and articles, and obtain the latest information from various sources. It allows students to understand better the topics studied and develop critical skills in evaluating and sorting accurate and relevant information.

The use of digital technology in learning can increase student engagement and motivation. Students are more interested and involved in learning that involves digital elements such as multimedia, interactive, and practical experiences. Technology also allows students to actively participate in content creation, collaborate with fellow students, and get immediate feedback. It strengthens students' engagement with the course material and increases their learning motivation.

Digital literacy helps students develop skills relevant to today's digital era. They learn to use various digital tools and applications, mastering information retrieval skills, resource evaluation, data analysis, and technology-related problem-solving. Students also develop collaboration, communication, creativity, and critical thinking skills that are important in a digital environment.

Implementing digital literacy allows teachers to create contextual and relevant learning for students. They can relate learning to the real world, use examples, and integrate real problems into the learning context. It helps students relate academic concepts to their daily lives and see the relevance of course material in the context of a rapidly changing world.

Digital literacy equips students with the skills needed in the modern world of work. The ability to use technology well, manage digital information, communicate effectively via digital platforms, and utilize digital tools in teamwork are becoming essential skills in various career fields. Digital literacy helps students prepare for the challenges and opportunities in a work environment increasingly dependent on technology.

Through digital literacy, students also learn digital ethics and safety. They learn about responsible use, privacy protection, online security, and ethics in the use of technology. Students become more aware of the risks and challenges of the digital world and are taught how to deal with them wisely.

Digital literacy provides far-reaching benefits in improving learning, student engagement, and preparation for an increasingly digitally connected future.

CONCLUSION

Implementing digital literacy in learning at SMK Sore is vital in developing students' skills and understanding related to digital technology. Through digital literacy, students can access extensive information, develop skills relevant to the digital era, and engage in contextual and exciting learning. Digital literacy also helps students understand digital ethics and safety to be responsible users in a complex digital world.

Using digital technology in learning at SMK Sore increases student engagement and motivation, enables collaborative learning, and brings learning into a real-world context. Through the implementation of digital literacy, students develop technical skills, social skills, creativity, critical thinking, and problem-solving.

However, implementing digital literacy is also faced with challenges, such as gaps in access to technology, lack of teacher skills in integrating technology in learning, and continuous expansion of skills considering rapid technological advances. Commitment from governments, educational institutions, teachers, and students is needed to overcome these challenges.

Overall, implementing digital literacy in learning significantly benefits students in developing skills relevant to the digital era, increasing their engagement and motivation, and preparing them for the challenges and opportunities in an increasingly digitally connected world. With the right approach and adequate support, digital literacy can be a strong foundation for improving learning and helping students become intelligent, critical, and responsible digital citizens.

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