

## The Role of Information Technology in Improving the Quality of Social Studies Learning in Elementary Education

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### ABSTRACT

This study aims to explore the effect of technology utilization on increasing fourth-grade students' interest and motivation in learning social studies. The research method used was qualitative with a phenomenological approach, involving 22 students at elementary school 2 Tomohon. Data was collected through semi-structured interviews, classroom observations, and group discussions. The results showed that the use of technology, such as tablet devices and interactive educational applications, significantly increased students' interest and motivation. As many as 85% of students stated that technology made learning more interesting, while 78% felt more motivated to learn. In addition, student participation in discussions also increased, and they developed useful digital skills. However, challenges such as limited access and unstable internet connections need to be addressed. These findings suggest that integrating technology in social studies learning can create a more interactive and effective learning environment and provide recommendations for the development of better educational practices. Based on the results of the research conducted, it can be concluded that the use of technology in social studies learning makes a significant contribution to increasing students' interest and motivation to learn, where 85% of students stated that the use of technology makes social studies lessons more interesting, while 78% of students feel more motivated to learn when technology is used in learning activities.

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## 1. INTRODUCTION

Education plays a central role in shaping an individual's character, knowledge, and skills, particularly at the elementary school level, where a crucial foundation for students' future development is laid (Hanafiah et al., 2024). In Indonesia, social studies instruction at the elementary school level, including at Elementary School 2 Tomohon, is expected to develop students' understanding of society, culture, social values, and history. However, the reality reveals significant obstacles to the effectiveness of social studies instruction at the school. Based on initial observations at elementary school 2

Tomohon, students demonstrated a significant lack of interest in the social studies material. During the learning process, students' interest and motivation to learn were low.

One contributing factor to this lack of student interest is the dominance of conventional learning methods (Maheshwari et al., 2023). The application of traditional methods, which prioritize lectures and neglect active approaches involving direct student participation, results in a lack of in-depth understanding of the IPS material. Research by Silalahi (2023) shows that monotonous learning methods can reduce student motivation, and learning outcomes tend to be unsatisfactory. From a psychological perspective, if students don't feel actively engaged in the learning process, they will lose interest, and the impact will be directly reflected in their academic performance.

In response to this challenge, many researchers and educators have begun exploring the potential for innovation in social studies learning. Research by Vodă et al. (2022) emphasizes the importance of an integrative and creative approach to social studies learning, as well as the need to incorporate a wider variety of learning media. One much-needed innovation is the application of information technology in the learning process. Information technology, such as educational software, learning videos, and online applications, has the potential to create a more interactive and enjoyable learning experience. The use of technology in learning not only increases student engagement but also allows them to access a wider range of information sources not available in traditional learning contexts (Serrano et al., 2019; Balalle, 2024).

In today's digital era, where technology is developing rapidly, it is crucial for students to master not only contemporary knowledge but also technological skills (Haleem et al., 2022). Adaptive and up-to-date social studies education can equip students with the relevant knowledge and skills necessary to function effectively in an increasingly technology-driven society. Research by Tang (2024) shows that students exposed to technology-based learning have better critical thinking skills and are better able to adapt to challenges in their environment.

At elementary school 2 Tomohon, the use of technology in social studies learning allows students to interact with the material in a different way. Through online platforms, educational videos, and game-based applications, students can learn social studies concepts in a more engaging way. A study by Wulandari and Husain (2025) showed that the implementation of technology-based machine learning in social studies in elementary schools not only successfully improved students' conceptual understanding but also encouraged collaboration among students in completing learning projects.

To better understand how information technology can be applied to improve the quality of social studies learning at Elementary School 2 Tomohon, this study aims to analyze and explore the potential of technology in the teaching and learning process. Through a systematic and data-driven approach, this research is expected to provide practical recommendations for educators and stakeholders in efforts to improve the

quality of social studies education so that students not only acquire information but are also motivated and interested in learning more deeply and broadly.

Thus, exploring the role of information technology in social studies learning is crucial to addressing current challenges. This research will provide useful insights for the development of more innovative and effective educational practices at the elementary level.

### **Theoretical Review**

Social studies learning in elementary education is crucial because it serves to develop students' understanding of the social environment, cultural history, geography, and societal dynamics. The primary goal of social studies learning is for students not only to acquire knowledge but also to develop social skills, critical thinking skills, and positive attitudes as part of forming a relevant identity in a constantly changing societal context (Maksum et al., 2021).

Constructivism theory is the fundamental basis for social studies learning. This theory, developed by experts such as Jean Piaget and Lev Vygotsky (Belolutskaya et al., 2022), emphasizes that learning is an active process in which students construct new knowledge based on previous experiences. According to Vygotsky (1978), social interactions and cultural context are highly influential in shaping individual understanding. In this context, social studies learning ideally provides opportunities for students to collaborate, discuss, and share perspectives, thereby enriching their learning experience.

However, the reality on the ground shows that many teachers still employ conventional teaching methods, such as one-way lectures and mastery of material from textbooks. This has proven ineffective in motivating students, leading to poor learning outcomes. Research by Hadiyanto et al. (2021) found that students taught using conventional methods tend to be less able to connect new information with existing knowledge.

With the development of information and communication technology (ICT), there has been an emerging understanding that integrating technology into education can significantly contribute to improving the quality of social studies learning (Zhao et al., 2024). Technology provides tools to transform the way students access, evaluate, and use information (Kurt & Tuncer, 2021). One of the main benefits of using technology in learning is providing access to richer and more varied resources. By utilizing the internet, students can explore multiple perspectives on a topic, significantly enriching their learning experience.

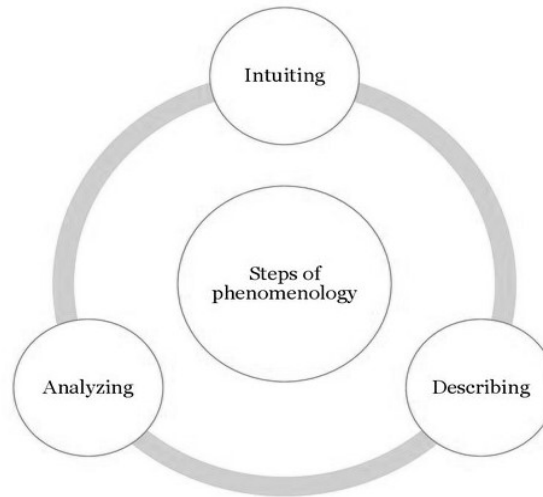
Through the implementation of innovative learning models, such as multimedia-based learning, students can engage in learning in a more engaging and dynamic way. According to Çeken and Taşkın (2022), multimedia learning involving text, images, audio, and video can improve comprehension and retention of information because it utilizes different cognitive channels. This supports the idea that more interactive and immersive learning can engage students, thereby increasing their motivation to learn (Petersen et al., 2022).

Data shows that integrating technology into social studies learning helps students develop 21st-century skills, such as critical thinking, collaboration, and creativity. Research by [Taranto et al. \(2024\)](#) shows that learning using digital tools can enhance these skills, enabling students to identify solutions to more complex problems through collaborative discussions. [Ertl et al. \(2021\)](#) adds that the use of e-learning platforms and educational applications improves conceptual understanding and fosters collaboration among students. This allows students to apply their knowledge in practical contexts, increasing their engagement and motivation to learn. By integrating technology into learning, students not only learn the content but also how to use modern tools to research, discuss, and present information ([Wang, 2020](#)). This creates a more immersive learning experience, where students are actively involved in the knowledge acquisition process. [Baser et al. \(2017\)](#) suggest that project-based learning supported and enriched by technology can provide more relevant and applicable subjects for students.

It is important to create an inclusive learning environment that accommodates diverse student perspectives ([Rusticus et al., 2023](#)). This involves developing a curriculum that reflects the social and cultural diversity of society. Using technology as a tool to support learning is essential for raising students' awareness of global issues. Students are encouraged to use technology to research and present various social issues around them in innovative and creative ways ([Wannapiroon & Pimdee, 2022](#)). Building more effective learning experiences in elementary school social studies can be a major step towards improving the overall quality of education. Research by [Cooner \(2010\)](#) shows that if students engage in technology-based discussions on topics relevant to their daily lives, they will be able to relate what they learn to real-life experiences, building their motivation and sense of responsibility for the lesson.

## 2. METHOD

This study uses qualitative methods to develop students' interest and motivation in learning social studies using technology. The study was conducted on fourth-grade students at elementary school 2 in Tomohon. This qualitative study uses a phenomenological approach, aiming to understand students' experiences and perspectives regarding the use of technology in learning social studies. The research subjects consisted of 22 fourth-grade students who were purposively selected, considering criteria including students who were learning social studies using technology in their learning activities and were committed and willing to participate in interviews. The focus is to explore students' interests and motivations, as well as how technology can contribute to the teaching and learning process. The following is a qualitative research model with a phenomenological approach presented in Figure 1.



**Figure 1.** Qualitative Research with a Phenomenological Approach

Data was collected through semi-structured interviews, classroom observations, and group discussions. In the semi-structured interviews, the researcher conducted interviews with 22 students to explore their experiences and reflections regarding the use of technology in social studies learning. These interviews followed a pre-prepared questionnaire but also allowed students the freedom to share their views and experiences in depth. During classroom observations, students' interactions, participation, and enthusiasm while learning using technological tools were recorded. Group discussions were then conducted with students to obtain their collective perspectives on their experiences learning social studies using technology. These discussions helped enrich the data and provided an opportunity for students to share their opinions.

Data from the interviews, observations, and group discussions were analyzed using a thematic analysis approach. The analysis process was carried out through transcription, where the interviews and discussions were transcribed to obtain text that could be analyzed. The next step in the analysis was coding, where the researcher used coding to identify key themes emerging from the data, such as student interest, learning motivation, and the positive effects of technology in social studies learning. Finally, categorization was performed, where the identified themes were grouped into broader categories to help summarize the research findings.

To ensure data validity, the researcher conducted data triangulation, comparing the results of interviews, observations, and focus group discussions to obtain a more comprehensive picture of students' experiences. Furthermore, the researcher solicited feedback from several participants after the analysis process to ensure that the research interpretations aligned with their perspectives. This study adhered to ethical research principles by obtaining informed consent from parents and school officials. Students were informed about the purpose of the study and their right to withdraw at any time without consequence. Student identities were protected by using an anonymity code for all data collected.

This qualitative research method is expected to provide in-depth insights into how the use of technology in social studies can increase student interest and motivation. The

research findings are expected to be used to develop better educational practices in the context of social studies learning in elementary schools.

### 3. RESULTS AND DISCUSSION

#### Results

Building upon data analysis from interviews, observations, and group discussions, several findings emerged regarding the influence of technology utilization in increasing student interest and motivation in social studies learning. The research findings revealed that 85% of students stated that the use of technology, such as tablets and interactive applications, made social studies lessons more engaging. They stated that the digital media used in learning made the material more lively and easier to understand.

**Table 1.** Research Findings

No	Aspect	Percentage (%)
1	The use of technology, such as tablets and interactive applications, made social studies lessons more engaging	85
2	Students felt more motivated to learn social studies when using technology	78
3	Students felt that the ability to use technology effectively was a crucial factor in their learning success	76
4	Students reported technical difficulties, such as unstable internet connections and limited access to technology devices at home	15

Interview results showed that 78% of students felt more motivated to learn social studies when using technology. Among these students, learning activities involving educational games and multimedia videos increased their enthusiasm for learning. Observations in the classroom revealed that the use of technology increased students' active participation in discussions and group activities. Students appeared more confident in asking questions and sharing ideas, especially when using tools they found intriguing. Interviews also revealed that students felt more confident in using technology, which not only benefits social studies learning but also develops digital skills that will be useful in the future. Approximately 76% of students felt that the ability to use technology effectively was a crucial factor in their learning success.

Despite the many benefits of using technology in social studies learning, 15% of students reported technical difficulties, such as unstable internet connections and limited access to technology devices at home. This presents a challenge in enhancing technology-based learning. The results of this study indicate that the use of technology has a significant positive impact on student interest and motivation in social studies learning. This finding aligns with previous research findings, which suggest that the use of technological tools in education can increase student engagement and help them understand the material better.

The increase in student interest in social studies Learning through technology can be explained by the interactive and visual nature of digital media. With videos, games, and learning applications, students not only listen but also actively engage in the learning

process. This creates a fun learning experience and reduces the boredom often associated with conventional learning. The increased interaction and convenience of using technology appear to contribute to student motivation. The use of technology allows students to learn in a way that suits their learning styles, thus making them more engaged in the process. This research supports motivation theory, which states that a positive and engaging learning environment will increase student interest and motivation.

## **Discussion**

Increased student participation is also an important indicator of learning success. When students actively participate in discussions and learning activities, they have the opportunity to share knowledge and ideas, which is crucial in social studies learning, which is oriented towards social and cultural understanding. As students' technological skills improve, they are prepared not only for learning challenges but also for a world increasingly reliant on technology. These skills will benefit students in the future, both in education and in the workplace ([García-Pérez et al., 2021](#)).

Despite the many benefits, challenges such as unstable internet connections and limited access require attention. This highlights the need for greater support from schools and the government to provide the necessary infrastructure to enable all students to effectively utilize technology.

Based on the research findings and discussion above, the use of technology in social studies learning significantly contributes to increasing student interest and motivation in learning. While there are challenges to overcome, this study highlights the importance of integrating technology into education to create a more engaging and effective learning environment. Based on these findings, it is recommended that educators and educational decision-makers be more proactive in implementing technology in the curriculum and ensuring that all students have adequate access to utilize technology effectively.

The results of this study indicate that the integration of Information and Communication Technology (ICT) into the curriculum at elementary school 2 Tomohon has a positive impact on student interest and motivation. This finding supports the principles of constructivism theory proposed by Piaget and Vygotsky, which explains that students learn better when they are actively involved in the learning process ([Singer, 2022](#)). According to this theory, direct experience and interaction with learning materials are key to building understanding ([Navrátilová & Jurčík, 2025](#)). In this study, observations showed that students engaged in technology-based learning tended to be more enthusiastic and motivated because they could collaborate and explore information independently. The intensive interaction enabled by ICT also helped students construct their knowledge in a more contextual and meaningful way.

Furthermore, interviews with teachers indicated that the use of technology made the delivery of material more engaging and interactive. This aligns with the connectivism theory proposed by George Siemens ([Hendricks, 2019](#)). Connectivism emphasizes the importance of relationships and networks in the learning process in the digital age. With

the development of learning using technology, students are connected not only to information but also to their peers, creating opportunities for broader knowledge and experience sharing (Nel, 2017; Bouton et al., 2021). It was found that when students use digital platforms for learning, they can access a wider variety of resources and learn from different perspectives, enriching their learning experience. This suggests that the use of technology in the classroom serves as a bridge to foster social connections that support collaborative learning.

The study also noted challenges in implementing technology, such as gaps in technology access and the need for teacher training. This highlights the need for a systematic approach to designing a curriculum integrated with technology, emphasizing the importance of needs analysis and evaluation at every stage of curriculum implementation. This approach helps teachers adapt their teaching methods to students' abilities and needs and enables them to effectively utilize technology in the learning process. Therefore, the successful integration of technology into learning, particularly social studies, depends not only on infrastructure but also on the readiness and skills of teachers and students in managing technology.

This study demonstrates that integrating ICT into the basic education curriculum is crucial for creating more engaging and meaningful learning experiences. Based on relevant theories, the results demonstrate that technology can serve as an effective tool in creating an interactive and collaborative learning environment. Therefore, it is crucial to continue developing and improving the basic school curriculum to provide a strong foundation for students in the ever-evolving information age (Bansal, 2023; Zhao et al., 2024).

#### 4. CONCLUSION

Building upon the research results, it can be concluded that the use of technology in social studies education significantly increases students' interest and motivation to learn. Approximately 85% of students stated that the use of technology makes social studies lessons more interesting, while 78% of students stated that they feel more motivated to learn when technology is used in learning activities. Additionally, research shows that technology not only makes the learning process more interactive and enjoyable but also encourages students to actively participate in class discussions and activities. This increased interest and motivation positively impacts student engagement in learning, which in turn helps them develop digital skills essential for the future.

Despite these positive results, there are challenges that need to be addressed, such as limited access to technological devices and unstable internet connections in some areas. Therefore, it is recommended that schools, teachers, and policymakers improve technological infrastructure and create a more supportive learning environment so that all students can fully benefit from the use of technology in social studies learning. Through these steps, it is hoped that the quality of education will improve, providing a more meaningful learning experience for students.



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