

Research Article

Application of Technology in the Social Studies Learning Process at the Elementary School Level: Opportunities and Challenge

Maria Patrisia Wau*, Elisantinia Endu, Maria Julita Lulu, Maria Stefania Odje, Maria Alexandra Itu, Viorentina Meo Soro, Christina Ngadha & Fransiskus Tonda

STKIP Citra Bakti, Ngada, Nusa Tenggara Timur, 86461, Indonesia

*Corresponding Author: maripatrisiawau@gmail.com | Phone Number: 081238031287

ABSTRACT

The purpose of this research is to explore opportunities and challenges by incorporating and implementing technology in the social studies learning process at the elementary school level. In this research process, the application of qualitative methods and case study approaches is used. One of the goals is to identify the benefits and barriers and the extent to which teachers and students are coping with them. Data sources are taken by conducting interviews, observations, and interviews with teachers, and relevant documentation. Afterwards, the authors conclude that technology allows greater access to learning resources, supports interactive learning and cooperative learning, young students have knowledge about experiments, and many others. However, there are also several challenges in its implementation. These challenges include infrastructure and access to technology tools, training and partnership development for teachers, and digitalization imbalances that exacerbate educational imbalances. This research highlights the importance of appropriate strategies and policies in overcoming these challenges and provides recommendations in optimizing elementary school social studies learning technology. Thus, this research is also expected to be able to provide understanding and become one of the references in developing learning by using technology, especially in social studies learning.

Keywords: Technology Integration; Social Studies Learning; Opportunities and Challenges

1. INTRODUCTION

Technology in the world of education in this century, has brought significant influence in various sectors. Through education, it is hoped that it can produce better learning, so that students can develop their potential (Indriyati, 2023). Education has a significant role in the development of human potential (Baikuna et al., 2024). In today's digital era, the role of technology is one of the important roles in improving the quality of learning through the world of education. This development allows for wider access to information, more interactive learning methods, and allows students to learn from anywhere and do not have to be fixed in the classroom (Sakti, 2023). So, currently in the learning process, innovation is needed, especially in taking advantage of these advances in the world of education (Setiawan et al., 2023).

In education, it is not just about creating change, but also opening a new chapter for the world of education to create learning, including in the realm of Social Sciences (IPS). The close connection between technological developments and the social world encourages us to explore the potential for social studies learning innovations in the digital era and how technology can be inserted wisely to improve the quality of education (Tazkia & Safitri, 2024). According to, (Chandra Setia Rini, 2022) The development of education is influenced by the current development of ICT. ICT has taken part in the learning process, including in the teaching of social studies subjects.

Innovation in social studies subjects at this time, is not only limited to the transfer of historical knowledge, but includes the development of critical, analytical, and creative skills necessary to adapt to the changes in today's global society, especially at the elementary school level (Tazkia & Safitri, 2024). Primary school age is the golden age period, where in this phase, children are in a developmental stage that will affect their development in the future (Sittika et al., 2021). According to, (Kejora, 2020), Elementary school age students are in the age range of 7 to 12 years with good knowledge development. Meanwhile, according to (Hidayat, 2020), Historically, social studies learning has had a good impact on British society and has been proven when the revolution ended. The end of this industrial revolution has caused various chaos in the community. So to overcome this condition, the government seeks to create learning that instills social values, one of the efforts is through social studies learning. According to, (Endayani, 2018), in social studies learning can improve the

character of the nation because it has knowledge related to the social conditions of the community. In response to this problem, a solution is needed to re-strengthen social studies education in schools. This step is becoming even more urgent given the serious impact of globalization and cultural change on human life today (Ginanjar, 2016).

In the current era, strengthening social studies learning in schools is very necessary for the sake of increasing the value of the nation's character. According to, (Galuh Mahardika & Nur Ramadhan, 2021), proves that through this education, it can have a positive impact and be useful and strengthen the spirit of nationalism of the Indonesian nation in the current era of globalization. In addition, according to (Hadi, 2020), based on the results of his research through social studies learning, this learning allows this learning to be an effective tool to strengthen the sense of nationalism. In addition, it can also provide opportunities for students to use technology that is increasingly developing (Wahyuni et al., 2022). According to, (Tricahyono & Sariyatun, 2021), In social studies learning, there are many values. These values are necessary to protect the character of students from the negative influence of globalization. By teaching this value education to students, it can provide an understanding of diversity and allow divisions in society (Rahmad Hidayat et al., 2020). In addition, through social studies learning in this era, it can reduce social problems in society. In the development of social studies learning, which is adjusted to technological developments, there are opportunities and challenges in its application (Kuntari, 2019).

Based on the above explanation, it is necessary to apply learning by involving technology in it, especially at the elementary school level (Dan & Budaya, 2022). Integrating technology into social studies learning can be one of the solutions in the renewal of education. However, in its integration, there are also several obstacles, including the lack of access and the uneven availability of technological facilities and infrastructure (Haniko et al., 2023). In certain areas, not all educational units (Schools) have access and facilities that support the integration of this technology in learning (Perannya et al., n.d.). In addition, behind these challenges, there are also a number of challenges that also need to be overcome. Among them, the digital divide is still the main problem, so not all students and teachers have the opportunity to access technology and the internet (Khasanah et al., 2024). However, the topic that discusses the benefits and problems in the application of technology in the social studies learning process at the elementary school level is still very low. Thus, it is hoped that through this research, it can provide an overview of the advantages and disadvantages of applying technology in the learning process, as well as strategies and solutions that can be developed to optimize the use of technology in social studies learning.

2. RESEARCH METHOD

The application of the method in this study adopts a qualitative method approach using literature studies. So that in its implementation it is used and starts with an inductive mindset, so that it focuses on objective observation of certain social events or phenomena. This method is often referred to as ethnography, phenomenology, or impressionism, with the aim of understanding various phenomena including changes in behavior, opinions, and actions as a whole. According to, (Rusandi & Muhammad Rusli, 2021), The description used in this study, using the words and language used, and analyzing the content used by the object. Meanwhile, according to (PILENDIA, 2020), He said that literature studies in general are the development of previous methods by defining content based on observations and relevant sources. Thus, it can be concluded that this study is a research data collection technique from various previous research sources as well as what problems will be solved.

3. RESULTS AND DISCUSSION

3.1 Results

3.1.1 Opportunities for Technology Integration in Social Sciences Learning in Elementary School

Opportunities for technology integration in the world of education provide various good impacts for students, including affecting the improvement of the quality of education and helping students overcome challenges in learning at school. There are several opportunities that can be obtained in the application of technology in the social studies learning process:

- 1) Provide support in the learning process.

Technology provides support in learning, such as the design, development, utilization, and management and evaluation of learning resources. This allows students to carry out the learning process flexibly and allows teachers to produce more effective learning. Technology makes it possible to overload learning materials in various forms such as videos, texts, images and many more. Technology makes it possible to overload learning materials in various forms such as videos, texts, images and many more. Students can learn social studies learning materials independently by utilizing existing technology. Teachers can also more easily distribute assignments, materials,

quizzes or learning media to students more easily.

2) Creating effective learning.

The application of technology in learning can create an effective form of learning for students by using various sciences in an integrated manner. The application of technology in learning can also create various new learning resources for students. In addition, it can also create a variety of applications in learning. Thus, the application of learning is adjusted to the characteristics and needs of students, so it can directly or indirectly improve the number of students who create effective learning in the application of social studies learning concepts or basics.

3) Increase student activity.

One of the goals of applying technology in social studies learning is to be able to create and increase student activity in the learning process. Technology provides opportunities for students to get and learn without being limited to the classroom. Thus, it can allow the learning process to be carried out flexibly and independently and can carry out the learning process with friends and teachers online through platforms such as zoom and others. Then it can also create interactive learning media such as making games that are adapted to social studies learning materials, so that the learning process will be very fun and memorable for students. Thus, when the learning process is enjoyable for students, it will increase students' agility in the learning process.

4) Being a solution to learning challenges.

Challenges in learning can be overcome by applying technology in learning, for example, by applying technology can help create more enjoyable learning with the application of learning media produced through the application of technology. Another challenge is the lack of classrooms for students to learn, so that with the application of this technology, students can carry out the learning process through online spaces by utilizing applications that can provide online spaces to study for free or without payment.

3.2 Discussion

The application of technology can be done in various fields, including in the world of education. With the application of technology in learning, it can be a solution to problems or obstacles in the world of education. He can create interesting and innovative learning media and provide students to learn various social studies learning materials in depth through various sources.

3.2.1 Challenges and How to Integrate Technology in Learning

The application of technology in the learning process in elementary schools, especially in social studies learning, there are several obstacles and challenges for both teachers and students, including: 1) Very diverse program languages. The diversity of the language of this program makes it difficult for educators to use the available platforms. Some platforms use their own formulas, so when operating them, teachers must be able to determine the appropriate formula. 2) Diversity of learning content. Content in the digital world is not separated from each other such as video, audio, and images and so on. So that when using digital platforms, teachers sometimes still find it difficult to unite these various contents. 3) Teachers' limitations in operating digital devices. Digital devices used to support the learning process in the world of education have a variety of very diverse features. Teachers who are unable to operate applications with these various features will have difficulty in using and utilizing existing technology. 4) Uneven building infrastructure. The unevenness of development infrastructure is one of the challenges that many people still experience, especially people in rural areas. The impact of this uneven technological infrastructure is that technology cannot be used properly by existing technology.

In overcoming obstacles and challenges in integrating technology, the ability to implement existing technology and analyze the needs of students is needed, the goal is that through its application can have a real impact felt by students. The scarcity that can be done to reduce the influence of the obstacles that have been explained, include the following:

- 1) Strengthening competence. Training can be carried out as a way to improve quality in the world of education. This training aims to ensure that teachers have the ability to operate technology in social studies learning effectively.
- 2) Procurement of Technological Infrastructure. The procurement of this technology infrastructure aims to facilitate teachers and students in accessing or using technology in learning. Examples include the procurement of technological facilities and infrastructure such as campaigns and others.
- 3) Procurement of variation in learning. The procurement of variety in learning is intended as a way for teachers to create learning that is not only centered in the classroom and uses conventional learning methods. But teachers can do variations in learning such as games and learning media that can be produced using existing technology.
- 4) Increasing student activity. The purpose of increasing student activity in social studies learning is to be able to involve students directly. By involving students directly in the learning process, it can create a more interesting learning for them and will also be more memorable. Teachers can hold or create a variety of learning media so that

learning is not only zoned by teachers.

- 5) Evaluation in learning. The goal is that through this evaluation activity, teachers can measure the level of learning achievement achieved by students. One way to conduct an evaluation in learning by utilizing technology is to make practice questions online by utilizing technology.

4. CONCLUSION

Education is an effort that can be made in creating or producing quality students who are able to solve simple problems by using their knowledge or knowledge. In addition, educational goals can also be defined as a way to prepare students to become citizens who have knowledge, skills, attitudes, or competencies that they will achieve in the learning process. In today's rapid development of the world, it is undeniable that technological developments have a strong influence in various fields, including in the field of education. Today's education requires the application of technology in it. With the aim of being able to produce students who are literate or understand the very wide world of technology today. One of the applications of technology in the learning process is social studies learning. Social studies learning is one of the subjects that is required to apply technology in it. Through this application, students are expected not only to be able to master basic competencies in learning but also to be able to recognize and utilize existing technology well, starting at the elementary school level.

In today's era of globalization, everything in the world can be interconnected. All information can be accessed easily using existing technology. This causes the information that is spread to be consumed by various groups. However, if not used properly, technology can also provide a negative impact on its users, especially for students. At elementary school age, observation and assistance are needed for children in using existing technology. The application of technology in the learning process can also be carried out in various forms, for example, teachers create varied and interactive learning media for students. By producing interactive learning media, students can directly or indirectly participate in learning activities with a happy self, so that they can understand learning well. At elementary school age, observation and assistance are needed for children in using existing technology. The application of technology in the learning process can also be carried out in various forms, for example, teachers create varied and interactive learning media for students. By producing interactive learning media, students can directly or indirectly participate in learning activities with a happy self, so that they can understand learning well. In its application, it can also allow students to get information related to learning that is not only fixed on books, but also from various sources. Thus, students will better understand various concepts in social studies learning such as history and economics. Technology can also create flexibility in the application of learning methods, allowing students to access learning more easily. In its application, it can also allow students to get information related to learning that is not only fixed on books, but also from various sources. Thus, students will better understand various concepts in social studies learning such as history and economics. Technology can also create flexibility in the application of learning methods, allowing students to access learning more easily. The advantage is that students who are in certain areas that have limited access can also use or carry out the learning process well just like other students. Technology applied in the learning process has various positive impacts for both teachers and students. The advantage is that students who are in certain areas that have limited access can also use or carry out the learning process well just like other students. Technology applied in the learning process has various positive impacts for both teachers and students. Teachers can make good use of the technology provided, for example making teaching tools electronically or creating learning media with various available technologies, such as Canva and so on. By creating learning or applying learning with technology, teachers will be easier in the learning process. In addition, students are facilitated with increasingly interesting learning.

In addition to the various positive impacts above, in its application technology also has challenges in its application if it is not used and utilized properly by its users. One of the challenges that is often encountered is the lack of teacher competence in utilizing existing technology for the learning process. Handling this challenge can be done by holding training so that teachers can also improve their competencies, then can create more enjoyable and memorable learning for students, especially in social studies learning.

REFERENCES

- Baharuddin, B., & Hatta, H. (2024). Transformation of Education Management: Integration of Technology and Innovation in Improving Learning Effectiveness. *Journal of Education and Teaching Review (JRPP)*, 7(3), 7355–7544.
- Baikuna, L., Farhan Hidayatuloh, M., Fikri Rizal, M. I., Fitria, N., Ulfatun Anjelina, N., Rivian Eko Mahendra, M., Zahrotin Nisak, A., Study of Social Studies, P., & Sayyid Ali Rahmatullah Tulungagung, U. (2024). The Role of Educational

- Technology in the Utilization of Social Studies Learning. *Journal of Education and Social Sciences*, 2(1), 102–115. <https://doi.org/10.54066/jupendis.v2i1.1182>
- Chandra Setia Rini. (2022). The Use of Kahoot Media to Improve the Learning Outcomes of Operating System Subjects for Class X Students in Computer and Network Engineering at SMK Negeri 1 Gempol. *Devotion : Journal of Learning Technology*, 6(1), 48–57. <https://doi.org/10.36456/devosi.v6i1.5944>
- Dan, G., & Budaya, K. (2022). *4685-Article Text-16197-2-10-20220615*. 4, 1097–1102.
- Endayani, H. (2018). History And Concept of Social Studies Education Henni Endayani. *Ittihad*, II(2), 117–127.
- Galuh Mahardika, M. D., & Nur Ramadhan, F. (2021). Social studies learning as a reinforcement of nationalism in facing challenges in the era of globalization. *Journal of Social Studies Learning Theory and Praxis*, 6(2), 78–91. <https://doi.org/10.17977/um022v6i22021p78>
- Ginanjari, A. (2016). Strengthening the role of social studies in improving students' social skills. *Harmony: Journal of Social Studies and PKN Learning*, 1(1), 118.
- Hadi, H. (2020). Strengthening the character of love for the homeland through. *XI*(2), 220–232.
- Haniko, P., Mayliza, R., Lubis, S., Sappaile, B. I., & Hanim, S. A. (2023). The use of online learning media to make it easier for teachers to deliver material in learning. *Community Development Journal*, 4(2), 2862–2868.
- Hidayat, B. (2020). Historical Review of Social Sciences Education in Indonesia. *Indonesian Journal of Social Sciences Education*, 4(2), 149. <https://doi.org/10.23887/pips.v4i2.3493>
- Indriyati, N. (2023). The Role of Social Media in Social Studies Learning in the Social Society 5.0 Era at MI Darwata Karangasem, Sampang District, Cilacap Regency. *Journal of Education*, 11(2), 240–253. <https://doi.org/10.24090/jk.v11i2.8702>
- Kejora, M. T. B. (2020). The Use of Concrete Media in Science Learning in Inquiry to Improve Science Process Skills for Simple Machine subject. *MUDARRISA: Journal of Islamic Education Studies*, 12(1), 1–17. <https://doi.org/10.18326/mdr.v12i1.1-17>
- Khasanah, R., Risdayat, D., Pratiwi, D. S., Rustini, T., Study, P., Teacher, P., Basic, S., Education, U., Cibiru, K. D., Digital, K., & Guru, P. K. (2024). *Educational scholars*. 4(9).
- Kuntari, S. (2019). The Relevance of Social Sciences Education in the Flow of Globalization. *Hermeneutics : Journal of Hermeneutics*, 5(1), 25. <https://doi.org/10.30870/hermeneutika.v5i1.7389>
- His Role, S., Breaking, D., & Learning, M. (n.d.). 286943-Development-Definition-and-Area-Technol-7B4Ca90C. 72–94.
- PILENDIA, D. (2020). The Use of Adobe Flash as the Basis for the Development of Physics Teaching Materials: A Literature Study. *Journal of Tunas Pendidikan*, 2(2), 1–10. <https://doi.org/10.52060/pgsd.v2i2>
- PILENDIA, D. (2020). The Use of Adobe Flash as the Basis for the Development of Physics Teaching Materials: A Literature Study. *Journal of Tunas Pendidikan*, 2(2), 1–10. <https://doi.org/10.52060/pgsd.v2i2.255>
- Hidayat, Bunyamin, & Elly Malihah. (2020). Conflict Resolution Education through Multicultural Learning in Formal Education. *Buana Ilmu*, 5(1), 24–35. <https://doi.org/10.36805/bi.v5i1.1212>
- Rusandi, & Muhammad Rusli. (2021). Designing Basic/Descriptive Qualitative Research and Case Studies. *Al-Ubudiyah: Journal of Islamic Education and Studies*, 2(1), 48–60. <https://doi.org/10.55623/au.v2i1.18>
- Said, S. (2023). The Role of Technology as a Learning Media in the 21st Century Era. *PenKoMi Journal: Education & Economic Studies*, 6(2), 194–202.
- Sakti, A. (2023). Improving learning through digital technology. *Journal of Engineering Research (JUPRIT)*, 2(2), 212–219. <https://doi.org/10.55606/juprit.v2i2.2025>
- Setiawan, B., Habibah, E. N., Rahmadani, A. P., & Ardianti, D. F. N. (2023). The Role of Technology in Increasing the Effectiveness of the Social Studies Learning Process. *Journal of Education and Social Sciences*, 2(1), 1–17.
- Sittika, A. J., Karawang, U. S., Syahid, A., & Karawang, U. S. (2021). Strengthening humanistic based character education through local values and Islamic education values in basic education units in purwakarta regency. *İlköğretim Online*, 20(2), 22–32. <https://doi.org/10.17051/ilkonline.2021.02.06>
- Tazkia, H., & Safitri, D. (2024). Social Sciences Learning Innovation in the Digital Era: Inserting Technology in Social

Sciences Learning Innovation in the Digital Era: Investigation. 3116–3121.

Tricahyono, D., & Sariyatun, S. (2021). The tradition of intriguing is reviewed from the constructivism approach as an effort to strengthen value education in social studies learning. *Script: Journal of Non-Formal Education*, 7(1), 79. <https://doi.org/10.37905/aksara.7.1.79-88.2021>

Wahyuni, D., Ani, N., Rustini, T., & Arifin, M. H. (2022). Analysis of Cultural Values in Social Sciences Learning in Grade 2 of Sd. *Harmony: Journal of Social Studies and PKN Learning*, 7(1), 32–39. <https://doi.org/10.15294/harmony.v7i1.55990>