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Development of Social Studies Learning Based on Information and Communication Technology

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ABSTRACT

Abstract

This study aims to analyze the development of Social Sciences (IPS) learning based on Information and Communication Technology (ICT) through a literature study approach. The method used is a descriptive qualitative approach with data collection techniques through literature reviews of journals, books, and relevant documents. The results of the study indicate that the use of ICT in IPS learning is still not optimal and is greatly influenced by infrastructure factors, teacher digital literacy, and the availability of interactive learning media. ICT has been proven to be able to increase learning motivation, effectiveness of material delivery, and student collaboration if integrated with the right learning approach. The main challenges include the digital access gap and low teacher readiness. However, great opportunities are open through the development of a digital social project-based learning model that supports the strengthening of 21st century competencies and the profile of Pancasila students. This study recommends the development of a systematic, contextual, and sustainable ICT-based IPS learning model as a solution to the transformation of social learning in the digital era.

A. Introduction

The development of information and communication technology (ICT) has brought major changes in various aspects of life, including in the world of education. The advancement of ICT allows the previously conventional learning process to become more flexible, interactive, and adaptive to the needs of the times. In the midst of the rapid flow of globalization and digitalization, learning integrated with ICT is a must so that students are not left behind in 21st century competencies (Huda, 2020). In the context of learning Social Sciences (IPS), ICT integration has enormous potential to increase the effectiveness and attractiveness of learning. IPS as a subject that focuses on social, economic, and cultural phenomena, really needs a contextual and real data-based learning approach. Technology is able to present various dynamic learning resources such as social simulations, documentary videos, and digital maps that enrich students' learning experiences (Susanto, 2019).

However, IPS learning in many schools still tends to be textual and lecture-based, with limited use of learning media. This causes students to be less active and learning to become monotonous. In

fact, the ICT-based approach allows students to explore social phenomena independently and collaboratively through digital sources (Sari & Nugroho, 2021). This gap in the use of ICT is caused by several factors, including limited infrastructure, lack of teacher training, and minimal availability of educational software that is in accordance with the characteristics of social studies. Social studies teachers at the junior high school level, especially in non-urban areas, still experience obstacles in integrating ICT into the learning process optimally (Widodo, 2020).

In addition, the COVID-19 pandemic has become a catalyst that shows the importance of digitalizing education. Schools that have implemented ICT-based learning are relatively more prepared to carry out distance learning. This situation opens up awareness of the need for digital transformation in social studies learning to answer future learning challenges (Putra & Astuti, 2022). It is not only a matter of infrastructure readiness, but also the importance of shifting the learning paradigm from teachers as the main source of knowledge to facilitators in the process of constructing students' knowledge. In ICT-based social studies learning, students can be invited to conduct independent exploration and discussions through online forums, the use of digital learning platforms, and real-time social data-based projects (Munir, 2021).

The implementation of ICT-based social studies learning is also in line with the principles of active and contextual learning. Through this approach, students not only memorize facts, but are able to analyze social problems, develop social empathy, and form critical awareness of their surroundings. ICT enables the creation of a collaborative learning environment and supports 21st-century skills such as communication, collaboration, critical thinking, and creativity (Firman & Tola, 2020).

Thus, the development of ICT-based social studies learning is a strategic step to improve the quality of social education that is relevant to the times. There needs to be a structured learning model design, based on student needs, and supported by adequate training and provision of technological facilities. Research by Wulandari (2019) shows that the use of ICT-based interactive media in social studies learning can increase students' interest in learning and understanding of concepts. Meanwhile, a study by Lestari and Kurniawan (2020) proved that the use of digital learning applications such as Google Classroom and Quizizz has a positive influence on student engagement in discussions and learning activities. Another study by Rohmah (2021) stated that the blended learning approach in social studies learning can significantly improve learning outcomes compared to conventional methods.

Although the three studies have shown the benefits of ICT-based learning in the context of social studies, in general, the research focuses more on the implementation aspects of certain applications or the short-term effects on student learning outcomes. There have not been many studies that develop a holistic ICT-based social studies learning model, which includes integrated planning, implementation, and evaluation and is oriented towards strengthening social competence. The research gap that emerged from previous studies is the lack of development of an ICT-based social studies learning model that is adjusted to the needs of local school characteristics and the social conditions of students. In addition, aspects of strengthening social values and character formation through ICT in social studies learning have still been studied in depth.

Another gap is the lack of studies that integrate project-based learning digital-based social project learning in the context of social studies. In fact, this approach has great potential in increasing students' social awareness through the use of technology. Therefore, it is necessary to develop learning innovations that combine technology with project and collaborative approaches.

The novelty of this study lies in the development of an ICT-based social studies learning model that not only focuses on the use of applications, but also integrates social values in the local context through a digital project-based approach. This model is designed so that students not only understand the concept, but are also actively involved in social activities based on data and digital media.

In addition, this model also carries the principles of flexibility and inclusivity, allowing for application in both face-to-face and online learning. ICT-based learning is no longer positioned as a complement, but as the main media that supports the transformation of social studies learning that is more contextual and student-centered.

On the other hand, the reality in the field shows that there are still many social studies teachers who do not have adequate digital competence. This is a major challenge for the development of ICT-based learning. Teachers need continuous training and support to be able to design innovative and meaningful learning by utilizing technology. Another reality is the inequality of access to ICT between schools in urban and rural areas. This inequality has the potential to widen the gap in the quality of social studies learning between regions. Therefore, the development of ICT-based social studies learning models must consider aspects of equality of access and strong policy support from the government.

B. Method

This study uses a qualitative approach with a literature study method (library research). Literature study was chosen because this study aims to analyze, evaluate, and integrate various theories, previous research results, and practices of Social Sciences (IPS) learning based on Information and Communication Technology (ICT). This approach allows researchers to explore relevant and comprehensive information from available scientific sources, either in the form of journal articles, books, research reports, or policy documents (Zed, 2008).

According to Moleong (2019), a qualitative approach aims to understand phenomena in depth and holistically from the perspective of the subjects being studied. In this context, the phenomenon being studied is the integration of ICT in IPS learning at the junior high and high school levels. A qualitative approach through literature study provides flexibility in compiling a conceptual and reflective understanding of current learning conditions and challenges.

Data were collected through the process of identifying and reviewing literature relevant to the research topic, including national and international journals, dissertations, and academic online sources. The data analysis technique used is content analysis, which is a technique for identifying patterns, themes, and narratives that emerge from the literature reviewed (Krippendorff, 2013). This analysis focuses on how ICT is used in social studies learning, its benefits, implementation constraints, and innovative models or approaches that have been proposed in previous studies.

The validity of the data in this literature study was strengthened by conducting source triangulation, namely comparing and confirming information from various different sources. In addition, the researcher also used critical interpretation techniques to ensure that the results of the analysis were not only descriptive, but also analytical and reflective (Bowen, 2009). Interpretation was carried out by considering the social, cultural, and educational policy contexts in Indonesia.

With this approach, it is hoped that the results of the study can provide theoretical and practical contributions in the development of ICT-based social studies learning models. This literature study can also be a basis for designing further research with a more in-depth field approach and the development of concrete technology-based learning products.

C. Results and Discussion

1. Result

a. Level of ICT Utilization in Social Studies Learning

The utilization of ICT in social studies learning still shows significant variation between regions and between educators. In several schools that have adequate infrastructure, ICT has been utilized in the form of using learning videos, online quizzes, and Learning Management System (LMS) platforms such as Google Classroom and Moodle (Lestari & Kurniawan, 2020). However, in many other areas, utilization is still limited to the use of projectors and PowerPoint presentation files.

The results of a literature study show that social studies teachers who have ICT training and experience are more likely to develop learning materials digitally, including making short videos and infographics. However, challenges arise when teachers do not receive policy support or facilities from the school, which causes dependence on the lecture method to remain high (Widodo, 2020). In addition, there is a gap in students' digital literacy. Some students are indeed proficient in using

digital devices for entertainment, but are not yet accustomed to using them for learning activities. This requires a more systematic approach to direct the use of technology towards the formation of knowledge and social attitudes (Putra & Astuti, 2022).

Thus, despite progress in the adoption of ICT, its use in social studies learning is still far from optimal. The development of teacher and student capacity building programs in digital literacy is a major urgency so that technology truly provides added value in social learning.

b. Benefits of ICT for the Social Studies Learning Process and Outcomes

ICT makes a positive contribution to improving the quality of the social studies learning process. Students become more actively involved in discussions, find it easier to understand abstract social concepts, and gain access to more diverse and up-to-date sources of information (Wulandari, 2019). For example, documentary videos and interactive simulations can be used to strengthen understanding of concepts about social conflict, cultural change, and globalization.

Another benefit is increased student motivation and interest in learning. Several studies have shown that the use of interactive applications such as Kahoot, Padlet, and Quizizz can increase student participation, including those who are usually passive in conventional learning (Sari & Nugroho, 2021). In addition, online collaborative activities through discussion forums strengthen communication between students.

On the other hand, the use of ICT allows for more flexible and personalized learning. Teachers can provide materials in various formats and allow students to learn at their own pace. This provides an opportunity for a student-centered learning approach that was previously difficult to implement in traditional face-to-face learning (Munir, 2021).

However, these benefits can only be achieved if ICT integration is carried out systematically and supported by teacher competence and infrastructure readiness. Without this, ICT is only an additional medium without having a significant impact on learning outcomes.

c. Challenges and Opportunities for Developing ICT-Based Learning Models

One of the main challenges in developing ICT-based social studies learning is the digital divide. Many schools in remote areas do not yet have stable internet access or adequate devices. This is a major obstacle to equalizing the quality of technology-based education (Firman & Tola, 2020). Without the support of policies that favor equalizing technology, this gap has the potential to widen social inequality between regions.

Another challenge is the readiness of teachers to design ICT-based learning that is in accordance with the characteristics of social studies. Many social studies teachers feel less confident in using digital applications pedagogically. The training available is often technical and not contextual to the subject (Huda, 2020).

However, opportunities are wide open as the government's attention to the digital transformation of education increases. The Merdeka Curriculum provides more space for teachers to innovate in the learning process, including in the use of digital technology. This is a momentum to develop a social studies learning model based on digital social projects or digital-based socio-project learning.

This kind of model can facilitate students to learn not only from the material, but also from the experience of being directly involved in analyzing social problems using data and technology. This strengthens students' social competence, digital literacy, and critical thinking skills simultaneously (Rohmah, 2021).

2. Discussion

a. Level of ICT Utilization in Social Studies Learning

The level of ICT utilization in social studies learning reflects differences in teachers' ability to adapt to digital transformation. The Technology Acceptance Model theory (Davis, 1989) explains that the acceptance of technology by individuals is influenced by the perception of usefulness and ease of use. In this context, teachers who consider ICT as a tool that facilitates learning tend to be more active in using it, while teachers who are less familiar find it difficult and are reluctant to innovate (Widodo, 2020).

These findings are in line with Susanto's study (2019) which shows that the integration of ICT in social studies learning is influenced by the readiness of infrastructure and teacher competence. The low digital literacy of teachers has an impact on the minimal use of interactive media and online source-based learning. Therefore, a continuous training strategy is needed to equip teachers with digital pedagogical skills.

Furthermore, the constructivist approach by Vygotsky (1978) emphasizes the importance of social interaction and the use of cultural tools (in this case technology) in the learning process. Social studies learning with ICT provides students with the opportunity to build knowledge through active exploration and collaboration, which unfortunately has not been optimal due to the limited use of technology in the field.

b. Benefits of ICT on the Process and Outcomes of Social Studies Learning

The benefits of ICT integration on the process and learning outcomes can be understood through Mayer's (2001) multimedia learning theory, which states that learning will be more effective if information is presented verbally and visually. In the context of social studies, the use of videos, simulations, and infographics helps students understand complex social concepts more concretely (Wulandari, 2019).

ICT-based learning also supports active learning, where students act as active subjects in building their understanding. According to Bonwell and Eison (1991), students who are involved in meaningful learning activities have a greater chance of developing critical thinking skills. In this case, applications such as Padlet, Quizizz, and Google Jamboard help build collaborative student interactions (Sari & Nugroho, 2021).

However, to maximize these benefits, a student-centered learning design is needed and utilizes the potential of ICT strategically. Teachers must be able to combine pedagogical approaches that are appropriate to the characteristics of students and the types of media used. Therefore, the development of a systemically integrated digital learning model is urgently needed (Munir, 2021).

c. Challenges and Opportunities for Developing ICT-Based Learning Models

The challenges in developing ICT-based social studies learning can be explained through the theory of educational ecology by Bronfenbrenner (1979), which emphasizes the importance of interaction between individuals and their surroundings. Infrastructure gaps and limited internet access are macro-environmental factors that influence the low application of technology in learning (Firman & Tola, 2020).

However, from a micro perspective, teacher motivation and innovation are determining factors for the success of ICT integration. Research by Huda (2020) shows that teachers who are committed and interested in professional development are able to create creative digital learning strategies even with limited facilities. This shows that opportunities remain open, as long as there is support for competency development and supportive policies.

In addition, the digital-based project-based learning approach is a strategic opportunity in social studies learning. Through digital social project activities, students not only develop conceptual understanding, but also social empathy and digital literacy. This approach is in line with

the demands of the Merdeka Curriculum which encourages contextual learning and is oriented towards strengthening the profile of Pancasila students (Rohmah, 2021).

D. Conclusion

This study concludes that the use of ICT in social studies learning is still varied and faces a number of challenges, ranging from limited infrastructure, low digital literacy of teachers and students, to suboptimal digital learning design. Nevertheless, the potential of ICT in increasing the effectiveness, motivation, and interactivity of learning is very large, especially if utilized with an approach that is in accordance with the characteristics of social studies subjects.

The opportunity to develop ICT-based learning models is wide open, especially through a contextual, collaborative, and social project-based digital approach that is oriented towards strengthening social values. Support for teacher training, provision of infrastructure, and adaptive education policies are needed so that the integration of ICT in social studies learning truly brings about meaningful transformation.

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