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Research Article

Integrating Artificial Intelligence and Canva as Instructional Media in Elementary Education: A Field Study at SDN 069 Mompang Julu, Indonesia

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Abstract: This study aims to examine the integration of Artificial Intelligence (AI) and Canva as instructional media in elementary school learning, particularly at SDN 069 Mompang Julu, Indonesia. The research employed a qualitative approach with a field study design. The research subjects consisted of elementary school teachers and students, while data were collected through observation, interviews, and documentation. Data analysis was conducted through data reduction, data display, and conclusion drawing. The results indicate that the use of AI and Canva assists teachers in designing more creative, visual, and efficient learning media, as well as increasing students' motivation and engagement in the learning process. The discussion reveals that the integration of these technologies creates a more adaptive and engaging learning experience; however, it still faces challenges related to teachers' digital competence and technological infrastructure. The study concludes that the integration of AI and Canva has strong potential to improve the quality of elementary education when supported by continuous teacher training and adequate technological facilities.

Keywords: Artificial Intelligence; Canva; Digital Learning; Elementary Education; Instructional Media

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1. Introduction

The rapid development of digital technology has brought significant changes to various sectors, including education. In the 21st-century learning era, technology plays an increasingly dominant role in the learning process, meeting the dynamic needs of students and increasing the effectiveness of the teaching and learning process. Two prominent technological innovations in the current educational context are Artificial Intelligence (AI) and digital-based graphic design platforms like Canva.

Artificial Intelligence has expanded its role in education from being merely an automation tool to a potential tool for creating adaptive learning, personalizing content, and increasing student motivation and engagement. Research shows that AI can be used by teachers to acquire materials, accelerate the presentation of learning content, and support the assessment process, as well as the development of more effective and engaging digital learning media. In the elementary school context, the use of AI is beginning to be evident in several studies that demonstrate teachers' positive perceptions of AI as an interactive digital learning medium, despite challenges such as limited digital competency and technological infrastructure (Samsiyah et al., 2025). Therefore, Artificial Intelligence has great potential as an adaptive and personalized learning medium in elementary schools, boosting student motivation, despite still facing limitations in digital competency and infrastructure.

In addition to AI, Canva, a web-based graphic design application, has become a popular tool in educational settings due to its ability to facilitate the creation of interactive, visual, and

creative learning media tailored to the characteristics of elementary school students. Various studies have shown that using Canva to create learning media can increase student motivation and assist teachers in designing engaging materials and simplifying abstract concepts into simpler and more understandable concepts for students (Azizah & Ratnaningrum, 2025). Therefore, Canva helps teachers create visual and interactive learning media that enhances elementary school students' motivation and understanding.

The integration of AI and Canva offers new potential for more innovative learning practices. For example, the AI features integrated into Canva can help teachers produce high-quality visual learning media more quickly and efficiently. Recent studies have also shown that the use of Canva-based learning tools combined with AI capabilities can significantly increase student learning interest through personalized and adaptive learning experiences (Ruslan et al., 2025). The integration of AI and Canva enables teachers to produce innovative, efficient visual learning media that can enhance student learning through more personalized and adaptive learning.

However, the implementation of this technological innovation in elementary schools in Indonesia is uneven, particularly in schools outside the city center, such as SDN 069 Mompang Julu. Challenges often encountered include a lack of teacher training in the latest digital technologies, limited supporting infrastructure, and low institutional readiness to integrate technology into the daily curriculum (Novitasari & Anisah, 2024).

Therefore, field research is needed that focuses on how the integration of AI and Canva as instructional media can be effectively implemented in elementary school learning, analyzing its impact on student motivation and learning outcomes, and formulating appropriate implementation strategies tailored to local conditions. Therefore, this study seeks to investigate the integration of AI and Canva as instructional media through a field study conducted at SD Negeri 069 Mompang Julu Panyabungan. The research focuses on teachers' experiences, perceived benefits, and challenges in adopting these technologies for classroom instruction. Research like this is important to provide recommendations for educational policies that support strengthening teachers' digital competencies and developing innovative learning media.

2. Research Method

This research employed a qualitative approach with a field study design. The aim was to describe and analyze in-depth the implementation of the integration of Artificial Intelligence (AI) and Canva as instructional media in elementary school learning. This approach was chosen because the research focused on the process, experiences, and real-world context of implementing learning technology in the school environment.

The research was conducted at SDN 069 Mompang Julu, with subjects including elementary school teachers and students directly involved in the use of AI and Canva in learning activities. The research focused on the use of AI and Canva as learning media, including teacher readiness, the implementation process, and its impact on student motivation and learning outcomes.

Data collection techniques included observation, interviews, and documentation. Observations were used to directly observe the learning process utilizing AI and Canva. Observations monitored teacher participation and engagement during training and practice sessions. Interviews were conducted with teachers to obtain information regarding their perceptions, experiences, and challenges in using these technologies. Documentation was used to collect supporting data in the form of learning tools, produced media, and learning activity notes.

The data were analyzed using thematic analysis, involving data reduction, categorization, and interpretation to identify recurring patterns and themes related to technology integration, benefits, and challenges.

3. Results and Discussion

Based on data obtained through observations, interviews, and documentation during field research at SDN 069 Mompang Julu, several findings were obtained related to the implementation, impacts, and obstacles of integrating Artificial Intelligence (AI) and Canva as instructional media in elementary school learning. The research results and discussion are outlined as follows:

Implementation of Artificial Intelligence and Canva Integration in Learning

The results of the study indicate that the integration of Artificial Intelligence (AI) and Canva as instructional media at SDN 069 Mompang Julu has begun to be gradually implemented by teachers in the learning process. Teachers utilize AI to help compile teaching materials, design assessment questions, and generate learning ideas that are appropriate to the characteristics of elementary school students. Meanwhile, Canva is used as a visual medium to present learning materials in the form of presentations, educational posters, and engaging student worksheets.

Artificial Intelligence in education refers to the use of intelligent systems that can support teaching and learning processes through automation, data analysis, and adaptive feedback. According to UNESCO (2019), AI has the potential to enhance educational equity and quality when used ethically and responsibly. In elementary education, AI tools can assist teachers in generating learning resources, formative assessments, and differentiated instruction strategies.

Canva is a digital design platform that allows users to create presentations, posters, worksheets, and other visual learning materials. Research indicates that visual media significantly improves students' comprehension and motivation, particularly at the elementary level. Canva's accessibility and ease of use make it suitable for teachers with limited digital design experience.

Using Canva, supported by AI features, helps teachers produce more varied, visual, and interactive learning media than conventional methods. This demonstrates that this technology integration makes it easier for teachers to design creative learning even with limited time and resources.

Impact on Student Motivation and Engagement

Based on observations and interviews, the use of AI-based learning media and Canva has a positive impact on student motivation and engagement in learning activities. Students appear more enthusiastic about participating in learning because the material is presented visually, colorfully, and adapted to everyday life contexts. Engaging media also encourages students to be more active in asking questions and participating during the learning process.

These findings align with the concept of 21st-century learning, which emphasizes the importance of using technology to create meaningful, student-centered learning experiences. The integration of AI and Canva allows for more personalized and adaptive learning, significantly increasing student learning interest.

Teacher Perceptions of the Use of AI and Canva

Interview results indicate that teachers have positive perceptions of the use of AI and Canva in learning. Teachers believe that both technologies help accelerate the lesson planning process and improve the quality of teaching materials. However, some teachers expressed that limited digital skills are a major challenge to optimally utilizing technology.

This situation indicates that although teachers are open to technological innovation, support in the form of training and mentoring is still essential for sustainable and optimal use of AI and Canva.

Figure 1. Teacher Interviews on the Use of AI and Canva

Obstacles to Implementation and Solutions

This study also identified several obstacles in implementing the integration of AI and Canva, including limited technological facilities, unstable internet access, and the absence of school policies specifically regulating the use of digital technology in learning. These obstacles have resulted in uneven use of AI and Canva across classrooms. Nevertheless, teachers are working to overcome these obstacles by sharing good practices with each other, utilizing personal devices, and adapting learning media to the available resources. These efforts demonstrate their commitment to continuing to deliver innovative learning, even under limited conditions.

Implications for Elementary School Learning Development

The results of this study indicate that the integration of AI and Canva has significant potential to support the development of innovative learning in elementary schools, particularly in areas outside urban centers. The application of this technology not only increases student learning motivation but also encourages teachers to be more creative and adaptive in designing lessons. Digital literacy is a key competency for teachers in the 21st century. Continuous professional development programs are essential to equip teachers with the skills needed to integrate technology effectively. Field-based training and hands-on practice have been shown to be effective approaches for improving teachers' confidence and technological competence.

Figure 2. Practice Using Canva for Learning Media

Therefore, the results of this study emphasize the importance of support from educational institutions and policymakers in providing technology training for teachers and strengthening schools' digital infrastructure. With such support, the integration of AI and Canva can be a strategic solution for sustainably improving the quality of elementary school learning.

Table 1. Activity Series

Day	Activity	Brief Description
1	Opening & Orientation	Presentation of the Field Study objectives, introduction to 21st-century learning, and initial discussion on the use of AI technology in the classroom.
2	Introduction to AI	Explanation of the basic concepts of Artificial Intelligence and examples of its application in elementary education.
3	AI Practice	Teachers demonstrate the use of AI to create questions, teaching materials, and learning ideas.
4	Introduction to Canva	Introduction to Canva features and examples of visual learning media.
5	Canva Practice	Teachers create learning media using Canva according to the subject.
6	Reflection & Evaluation	Discussion, feedback, and reflection on the results of the Field Study activities.

4. Conclusion

Based on the research results, the integration of Artificial Intelligence (AI) and Canva as instructional media at SDN 069 Mompang Julu has been proven to positively contribute to improving the quality of learning in elementary schools. The use of this technology helps teachers develop and present learning materials more creatively, visually, and efficiently, thereby increasing student motivation, engagement, and understanding of the material being taught. However, the implementation of AI and Canva still faces several obstacles, such as limited teacher digital competency, technological infrastructure, and institutional support. Therefore, ongoing efforts in the form of teacher training and the provision of supporting facilities are needed to ensure optimal and sustainable use of this learning technology.

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