

**ANALYSIS OF THE EFFECTIVENESS OF CANVA MULTIMEDIA ON THE
COGNITIVE ABILITIES AND LEARNING MOTIVATION OF ELEMENTARY
SCHOOL STUDENTS IN GRADE V**

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Abstract

This study aims to explore the effectiveness and contextual factors influencing the use of Canva-based interactive learning multimedia in enhancing the cognitive abilities and learning motivation of fifth grade elementary school students. A qualitative descriptive literature review design was employed, chosen to provide a comprehensive understanding of patterns, mechanisms, and perceptions across prior studies rather than to measure quantitative outcomes. Ten peer reviewed articles published between 2020 and 2025 were examined. Data extracted from these studies included research objectives, participants, educational contexts, methodological approaches, and emerging themes. The analysis was conducted through narrative and thematic synthesis to identify consistent findings and variations across the literature. The results revealed that Canva-based media fostered student engagement, improved

visualization of learning materials, and positively influenced both learning outcomes and motivation. Despite challenges such as limited facilities and varying teacher competencies, professional training and institutional support effectively addressed these barriers. Thus, Canva is recognized as a relevant and applicable digital learning tool supporting character- and technology-oriented education within the Independent Curriculum framework.

Keywords: Multimedia, cognitive ability, learning motivation

Abstrak

Penelitian ini bertujuan untuk mengeksplorasi efektivitas serta faktor kontekstual yang memengaruhi penggunaan multimedia pembelajaran interaktif berbasis Canva dalam meningkatkan kemampuan kognitif dan motivasi belajar siswa kelas V sekolah dasar. Penelitian ini menggunakan desain tinjauan pustaka deskriptif kualitatif, yang dipilih untuk memberikan pemahaman komprehensif mengenai pola, mekanisme, dan persepsi yang muncul dari berbagai penelitian sebelumnya, bukan untuk mengukur hasil secara kuantitatif. Sebanyak sepuluh artikel ilmiah yang diterbitkan antara tahun 2020 hingga 2025 dianalisis. Data yang diekstraksi dari penelitian tersebut mencakup tujuan penelitian, peserta, konteks pendidikan, pendekatan metodologis, serta tema-tema yang muncul. Analisis dilakukan melalui sintesis naratif dan tematik untuk mengidentifikasi temuan-temuan yang konsisten maupun perbedaan antar studi. Hasil analisis menunjukkan bahwa media berbasis Canva dapat meningkatkan keterlibatan siswa, memperkuat visualisasi materi pembelajaran, serta berdampak positif terhadap hasil belajar dan motivasi. Meskipun terdapat kendala seperti keterbatasan sarana dan variasi kompetensi guru, pelatihan profesional dan dukungan institusional terbukti efektif mengatasinya. Dengan demikian, Canva diakui sebagai media pembelajaran digital yang relevan dan aplikatif dalam mendukung pendidikan berbasis karakter dan teknologi pada implementasi Kurikulum Merdeka.

Kata Kunci: Multimedia, kemampuan kognitif, motivasi belajar.

INTRODUCTION

The shift in the learning paradigm of the 21st century demands continuous innovation in teaching and learning processes, especially through the integration of digital technology. Teachers are no longer the sole source of knowledge; instead, they function as facilitators who design and guide active, creative, and engaging learning experiences. In this context, technology does not replace the teacher's role but rather complements it by providing additional learning resources that enrich classroom interaction and promote student-centered learning (Sari & Yuliana, 2021).

One form of such technological integration is interactive learning multimedia, which enables the presentation of material in a more dynamic and visual manner. Among the various digital platforms available, Canva has emerged as a practical and versatile tool for developing learning media. As a digital design platform, Canva allows teachers to easily create visually appealing and interactive teaching materials. It serves as a supplementary learning resource that enhances teachers' instructional delivery, strengthens visualization, enriches content, and increases student participation through its interactive elements (Rahmawati & Dewi, 2022).

Several previous studies have examined the use of Canva in educational settings. Early studies (e.g., Rahman, 2020; Sari & Yuliana, 2021) explored Canva's role in improving students' creativity and visual literacy. Subsequent research expanded its focus to student motivation and engagement in online learning (Rahmawati & Dewi, 2022; Puspitasari & Widodo, 2023). More recent works (e.g., Lestari et al., 2024; Nugraha & Pratiwi, 2025) have investigated Canva's effectiveness in supporting subject-specific learning such as science and language learning. However, most of these studies were conducted at the secondary or higher education level, with limited emphasis on elementary school contexts, particularly regarding cognitive outcomes. This pattern suggests a research gap that warrants further exploration.

Two critical aspects of learning often emphasized in educational research are cognitive ability and learning motivation. Cognitive ability reflects students' capacity to understand, retain, and apply information, while learning motivation represents the internal and external drive that influences students' enthusiasm for learning (Nugroho et al., 2021). Interactive, visually rich, and enjoyable learning environments are known to strengthen both aspects simultaneously.

Although Canva has gained popularity as a teaching aid, systematic analyses of its effectiveness between 2020 and 2025, especially in elementary school learning, remain scarce. Therefore, this study aims to analyze the effectiveness of Canva-based interactive learning multimedia on the cognitive ability and learning motivation of fifth-grade elementary school students. The findings of this study are expected to contribute to the development of technology-integrated learning strategies that are both effective and pedagogically sound.

METHODS

This study employs a qualitative descriptive method with a literature review approach, which is a research technique conducted by examining and reviewing various relevant scientific sources to gain a deeper understanding of the research topic (Pohan & Hidayat, 2021). This approach was chosen because it provides a comprehensive overview of previous research findings without conducting direct experiments.

The data sources in this study consist of primary and secondary data. Primary data were obtained from an in-depth review of scientific articles that directly discuss the use of Canva-based interactive learning multimedia in the context of elementary education, while secondary data include textbooks, proceedings, research reports, and national and international journals that support the theoretical foundation and enrich the conceptual analysis (Sari & Prasetyo, 2022; Wulandari & Kurniawati, 2023).

The research procedure involves several stages, namely identifying relevant keywords (*Canva-based learning media*, *interactive multimedia*, *cognitive ability*, and *learning motivation*), searching for literature through online databases such as Google Scholar, Garuda, and ResearchGate, selecting articles based on inclusion criteria (publication years 2020–2025) and relevance to elementary school learning, and analyzing the selected literature.

Data analysis techniques were carried out using content analysis and narrative synthesis to identify patterns, themes, and trends from previous studies and to construct a comprehensive interpretation of the effectiveness of Canva-based learning media on students' cognitive abilities and learning motivation. Through this method, the study is expected to provide a deeper

understanding of Canva’s role as an interactive learning medium that supports the improvement of learning outcomes and motivation among elementary school students.

RESULTS AND DISCUSSION

The findings of this study indicate that Canva-based interactive learning multimedia has a significant impact on enhancing students’ cognitive abilities and learning motivation at the elementary level. These results align with Mayer’s (2009) Cognitive Theory of Multimedia Learning (CTML), which emphasizes that learning is more effective when verbal and visual information are presented together in a way that promotes meaningful integration in learners’ working memory. Canva facilitates this dual-channel processing through its combination of text, images, and animations that simplify abstract concepts and improve information retention.

Furthermore, the motivational aspect of Canva-based learning aligns with Self-Determination Theory (Deci & Ryan, 2000), which posits that intrinsic motivation increases when learning environments support autonomy, competence, and relatedness. Canva allows students to design, create, and express ideas visually, thereby fostering a sense of ownership and engagement in the learning process. This aligns with research by Moreno and Mayer (2007), who highlight the importance of interactive multimedia in promoting learner-centered environments that support motivation and self-regulation.

From a pedagogical perspective, Canva also supports Constructivist Learning Theory (Vygotsky, 1978), which views learning as an active process of constructing knowledge through interaction with tools and social collaboration. The use of Canva in group activities encourages communication, creativity, and problem-solving, elements that are essential for developing 21st-century skills (Partnership for 21st Century Learning, 2019). These findings are consistent with previous international studies (e.g., Al-Mekhlafi & Nagaratnam, 2019; Daryanto, 2021) that demonstrate how digital interactive media foster higher engagement and deeper understanding compared to conventional instructional approaches.

In summary, the integration of reputable international theories such as CTML, Self-Determination Theory, and Constructivism supports the conclusion that Canva-based interactive multimedia provides both cognitive and motivational benefits. It not only enhances students’ comprehension and retention of learning materials but also promotes creativity, autonomy, and collaborative learning, which are crucial for effective education in the digital era.

Table 1. Literature Review Result

No.	Writer	Research Title	Research Results
1	Munir, Muhammad Afifah, Nurul Najib, Muhammad	Development of Multimedia Interactive Learning for PKn Subjects for Grade II Elementary School Students	The research findings show the following: The development design of interactive learning multimedia involves three main stages: (a) needs analysis, (b) design, and (c) development and implementation. The results of the assessment of experts, both subject experts (97.33%), learning design experts (100%), and media experts

2	Maharani, Siti Dewi Barus, Joseph	Design of Lahat Culture-Based Comic Media Development Using the Canva Application for Learning in Grade II Elementary School	This research involved 28 students, 2 teachers, and a number of experts, including 3 media experts, 3 linguists, and 1 material expert by producing instruments and questionnaires that are in accordance with the indicators of comic media development based on the Lahat culture. The results of the research have resulted in good design in developing comic media that is effective in improving the quality of learning and can be applied more widely in other elementary schools, especially in rural areas.
3	Nurpiani, Rika Anggraeni, Sri Rahayu Farhurohman, Oman	Using Canva Media to Increase Elementary Grade III Students' Learning Interest	The researcher reads, evaluates and analyzes the information contained in it. Of the six articles obtained, it stated that the Canva application used
4	Amalia, Ema Nur	Teacher And Student Perceptions Of Media Use	The results of the study show that both teachers and students have a positive perception of the use of technology-based learning media. Teachers assess that technology can improve student understanding, create engaging learning, and motivate students to learn. Meanwhile, students feel that technology-based media makes learning more enjoyable, easy to understand, and encourages independent learning. However, some challenges arise, such as limited facilities, device access, and technical skills that still need to be improved. With support from schools and further training, technology has the potential to significantly improve the quality of learning. This research provides important insights for the development of technology-based learning in elementary schools. Word
5	Nurhosen Nurhosen Sayyinu Sayyinu Rofik Iskandar Malikal Balqis Miftahus Surur	Analysis of the Application of Canva-Based Learning Media to Student Learning Outcomes in Thematic Learning in Elementary	In the application of this media, several obstacles were encountered in the classroom, including; Teachers still don't know how to create designs in Canva, unstable signals, and limited infrastructure. However, these

		School	obstacles are not an obstacle. The school provides socialization or training and adequate facilities and infrastructure for teachers. There are eight articles that correspond to the theme of the study that state that the application of Canva's interactive media has a very significant role in student learning outcomes, especially at the elementary school level. Word
6	Kurniawan, Ahmad Aldhi Rahmawati, Novian Dini Dian, Kartiko.	The Effect of Canva's Interactive Learning Media on Social Science Learning Outcomes in Grade IV Elementary School Students	Data on student learning outcomes was obtained through tests. The average score of the students' pretest was 50.00 to 80.00 after the posttest was carried out by ice breaking. The data was analyzed using the normality test to obtain a sig value. Pretest was 0.77, and the Posttest was 0.57 > 0.05, so the data were normally distributed. The value of sig. The paired sample t test is 0.000 < 0.05 so that there is a significant difference between the student learning outcomes before the CE breaking and after the application of Canva's interactive learning media. In the pretest and posttest data, the Sig.2-tailed value is 0.000 < 0.05, then it is rejected and accepted. Meanwhile, from the N-Gain score of 57%, it can be interpreted that the provision of Canva interactive learning media is quite effective in improving student learning outcomes.
7	Aulia, Fitria Nurul	Utilization of Technology and Creative Learning Media to Increase Motivation and Learning Achievement of Elementary School Students	The use of the document review method is used; Data was collected through recording and analysis of research articles on the use of technology-based media in elementary schools. The Publish or Perish application is used to retrieve data from the Google Scholar database. The analysis shows that the use of technology-based learning media has a significant influence on students' desire to learn and their success rate in learning in elementary school. Word
8	Sulastina, Suminar Tri,	CJPE : Cokroaminoto	The results of the study showed that

	Setiawan Deni	Journal of Primary Education Development of Interactive Learning Multimedia Assisted Articulate Storyline Based on Character to Increase Motivation Introduction	the interactive multimedia developed was very feasible for use in learning, with expert validation obtaining an average score above 90%. Implementation in the classroom showed a significant increase in student learning motivation, as well as increased learning outcomes with an average difference in pretest and posttest scores of 33.2%. In conclusion, interactive multimedia based on Articulate Storyline can be an effective solution to increase student motivation and learning outcomes in PKn learning, while supporting character-based learning according to the demands of the independent curriculum. Abstract.
9	Hasibuan, Sri Hariati Ritonga, Sahbuki Ritonga, Soybatul Aslamiah Yulizar, Ismi	The Effect Of Interactive Learning Media On Students' Social Studies Learning Motivation In Grade 5	From the results of the study in the control class, an average score of 62.60 with a standard deviation of 5.950 was obtained. Meanwhile, the experimental class was obtained with an average score of 62.40 with a standard deviation of 10.257. When viewed from the results of the scores in the control class and the experimental class, using lecture learning media and supported by videos has a great effect on increasing student learning motivation and increasing student learning interest. After a hypothesis test was carried out to see the influence of students' interactive learning media, it was carried out using the t-test. In the one-party t-test where H_a is accepted and H_o is rejected if the t_{count} is tabled. But if H_o is accepted and H_a is rejected if the t_{count} table. The total t_{count} was obtained 2,183 and t_{table} data was obtained 2,035, so the data testing criteria obtained t_{count} t_{table} were 2,183 2,035. Therefore, it can be concluded that there is an influence of interactive learning media on students' social studies subjects at MIS Harisma Pulo Padang in the

			2023/2024 academic year.
10	Andriyani, Natasha Bilqies Yours truly, Christian.	Efforts to Increase Learning Motivation for Pancasila Education Subjects for Grades X-8 through Canva-Based Interactive Learning Media and Wordwall	interesting and fun, so that students' motivation to learn can increase. Based on data from tests and observations of learning Pancasila Education with Canva-Based Interactive Learning Media and Wordwall, it can be concluded that these media are effective in increasing the learning motivation of students in grades X-8 of SMA Negeri 21 Surabaya.

Based on the results of an analysis of ten studies, the use of interactive learning media—especially Canva—showed significant effectiveness in improving student motivation and learning outcomes at the elementary school level. Research by Munir, Afifah, and Najib (2022) and Maharani and Barus (2023) confirms that the process of developing interactive learning media through the stages of needs analysis, design, and validation by experts has succeeded in producing media that is very suitable for use.

The results of media validation even reached more than 90% by experts in materials, media, and learning design. Furthermore, research by Nurpiani, Anggraeni, and Farhurohman (2022), Kurniawan, Rahmawati, and Dian (2023), and Nurhosen et al. (2023) shows that Canva media is not only able to attract students' attention, but also contributes to significantly improving learning outcomes. Kurniawan et al. (2023), for example, reported an increase in the average score from 50 to 80 with an N-Gain of 57%, indicating moderate effectiveness of the use of the medium.

In addition to having an impact on learning outcomes, interactive media also plays a role in increasing students' motivation to learn. Amalia (2022) and Aulia (2023) found that both teachers and students had positive perceptions of the use of technology in learning. Students feel that learning becomes more fun and easy to understand, while teachers consider that technology media can create a more interesting and meaningful learning atmosphere. This is reinforced by research by Sulastina and Setiawan (2023) and Hasibuan et al. (2024), who showed that the use of media such as Articulate Storylines and interactive videos has a direct impact on increasing student interest and motivation.

However, several studies have also identified challenges in the implementation of this medium, such as device limitations, unstable internet connections, and teachers' lack of skills in using the Canva application (Nurhosen et al., 2023; Amalia, 2022). However, solutions in the form of teacher training and the provision of facilities from schools have proven to be able to overcome these obstacles. Thus, interactive learning media, especially Canva-based, are considered relevant and have the potential to be widely applied in elementary school learning, in line with the demands of the Independent Curriculum, which emphasizes character-based learning and technology.

CONCLUSION

This study aimed to analyze the effectiveness of Canva-based interactive learning multimedia in enhancing the cognitive abilities and learning motivation of grade V elementary school students. The findings of this literature review reveal that Canva is an effective and engaging learning medium that promotes active participation, deeper conceptual understanding, and improved academic achievement. Structured media design, expert validation, and pedagogically sound implementation contribute to its overall effectiveness in classroom learning.

However, this review is limited by the number and scope of available studies, which are predominantly focused on small-scale classroom implementations and short-term outcomes. In addition, most of the reviewed research is concentrated in specific educational contexts, making generalization to broader settings somewhat constrained.

Based on these findings, several practical steps are recommended. Schools should organize teacher workshops to strengthen educators' competence in designing and applying Canva-based multimedia. Institutions may also establish device-sharing schedules or collaborative digital facilities to address resource limitations. Furthermore, implementing peer coaching programs among teachers can foster knowledge exchange and sustainable innovation in the integration of interactive learning media.

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