Improving The Quality of Learning Through The Use of The Canva Application in Mathematics Learning Class VI SD Negeri 2 Krakal

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ABSTRACT

This writing aims to find out the Improvement of Learning Quality Through the Canva Application in Mathematics Learning Class VI SD Negeri 2 Krakal. The problems that are the focus of the study in this writing are; Is it through learning media that the Canva application can improve the quality of learning and Is it through the media that the student canva application is easier to defend. The research method used is a qualitative research method with a literature review approach, namely by conducting a literature review, the use of the Canva application and problems in mathematics learning. Based on the author's results, it can be concluded that the existence of learning by utilizing information technology through the use of the Canva application as a learning medium is proven to improve the quality of learning, Learning by utilizing information technology through the use of the Canva application as a learning medium is proven to make it easier to understand the material, Learning by utilizing information technology through the use of the Canva application as a learning medium Learning media has been proven to improve student learning outcomes, and There is a positive correlation between the quality of learning and student learning outcomes, the better the quality of learning, the higher the interest in learning and the success of students in learning.

Keywords : *Canva, Learning, Math, Learning*

1. Introduction

Mathematics education at the elementary level has a very crucial role in forming the foundation of students' cognitive abilities. At this stage, students are introduced to basic concepts such as numbers, arithmetic operations, and problem-solving that are the foundation for further math learning (Azizah et al., 2022). According to the NCTM (National Council of Teachers of Mathematics), the mastery of early math skills not only contributes to academic abilities in the field of science and technology, but also affects the critical and analytical thinking skills necessary in daily life (Asnur et al., 2024); Oktarina et al., 2021; Dewanto et al., 2023). Thus, effective math education can help students develop a logical mindset as well as the ability to make data-driven decisions (Friska et al., 2023).

In addition, mathematics education at the elementary level also plays an important role in increasing students' interest and motivation to learn(Yuanta & Larasati, 2023; Widiastuti, 2024). A lack of understanding of basic concepts often leads to fear or anxiety about these subjects later in life(Winiasri et al., 2023; Zulkifli et al., 2022)Therefore, an engaging and interactive teaching approach is indispensable to create a positive learning experience. Research shows that when students are comfortable with their math material from an early age, they tend to be more confident in facing academic challenges (Indriyani et al., 2024). Furthermore, investing in mathematics education in the early stages will have a long-term impact on academic achievement as well as students' overall personal development (Wumu et al., 2023); Melinia & Nugroho, 2022).

The main challenge in learning mathematics at the elementary level is the lack of student interest and motivation, which is often rooted in previous negative experiences with the subject (Rahman et al., 2023; Nurtamam et al., 2023). Many students feel that math is a difficult and boring subject, so they tend to avoid active involvement in the learning process. According to research by Hattie (2009), intrinsic motivation is essential for academic success; When students do not find relevance or excitement in the material being taught, they are more likely to have difficulty understanding basic concepts. This creates a negative cycle where misunderstanding leads to frustration, which in turn reduces interest in learning more. In addition, traditional teaching methods that are still widely used in the classroom often do not meet the needs of students' diverse learning styles(Novitasari et al., 2024); Santoso & Istiqomah, 2023; Santosa & Sudirman, 2023). A one-size-fits-all approach can leave some students feeling isolated or left behind, especially if they have a unique way of understanding mathematical information. Research shows that the use of more interactive and technology-based teaching strategies can increase student engagement (Putri Pratiwi et al., 2023). As such, it is important for educators to explore different teaching methods to create an inclusive and engaging learning environment for all students so that these challenges can be effectively addressed (Santoso et al., 2024);Santoso & Amelia, 2024).

The results of the 2023 Education Report Card for SD Negeri 2 Krakal show that the numeracy results are moderate (61.9% of students have reached the minimum competence). Compared to 2023, there is an increase but not a maximum, namely the 2023 Education Report Card score is 53.33 and in 2024 it is 61.9, an increase of 8.57. This is still a low mathematics learning about addition and subtraction in solving story problems. The development of educational technology has had a significant impact on the way learning is conducted, especially through the integration of innovative digital media. Digital media, such as learning apps and interactive platforms, allow students to access information in a more flexible and engaging way (Wantu et al., 2024). According to research by Johnson et al. (2016), the use of technology in education not only increases student engagement but also accelerates the process of understanding complex concepts by providing a variety of visual representations and simulations that support active learning. In addition, digital media provides opportunities for teachers to create teaching materials that are more varied and in accordance with the individual needs of students (Darmawati et al., 2024), so that it can improve learning motivation and overall academic results. Thus, the use of educational technology is the key to creating an effective and relevant learning experience in this modern era (Ali et al., 2024); Winiasri et al., 2023).

Research by Sari and Hidayati (2022) explores the use of digital applications in mathematics learning in elementary schools, showing that technology integration can significantly improve students' understanding of concepts. In the study, researchers found that students who studied using interactive media such as the Canva app showed a greater improvement in exam results compared to those who used traditional methods(Arwanda et al., 2024). This research emphasizes the importance of creating engaging and relevant teaching materials to increase student motivation and engagement, thus supporting the finding that the use of digital tools can contribute positively to the quality of learning.

Research by Rahmawati (2020) examined the impact of the use of visual media in mathematics education and found that students tended to be more enthusiastic when taught with a technology-based approach. The results of the study show that visual media not only helps in understanding mathematical concepts but also increases students' confidence when facing academic challenges(Putri Pratiwi et al., 2023). Thus, these two studies provide empirical evidence that supports this research's hypothesis about improving the quality of learning through the use of the Canva application in grade VI of SD Negeri 2 Krakal, as well as highlighting the great potential of educational technology to create a more effective and enjoyable learning experience for students. Based on this, this study aims to find out the

Improvement of Learning Quality through the Canva Application in Mathematics Learning Class VI SD Negeri 2 Krakal.

2. Research Methods

This type of research is a qualitative research with literature study techniques, namely by examining various references related to the Canva application, mathematics learning, and problems in mathematics learning so that the relationship between the three can be arranged. The research was carried out within one month, namely in July 2024 at SD Negeri 2 Krakal, Alian District, Kebumen Regency, which is located on Jln. Kebon Cikal No RT RW Krakal Village, Alian District.

The research subject was a grade VI student of SD Negeri 2 Krakal, Alian District, Kebumen Regency. Research procedures are steps used as a tool to collect data and solve problems in research. The research steps carried out are: (1) Problem Formulation, (2) Literature Review, (3) Research Design, (4) Data Collection, (5) Data Analysis, and (6) Result Reporting. Data, Data Collection Techniques and Data Analysis as follows: (1) the data sources of this author are students and teachers in the teaching and learning process, (2) quantitative data in the form of student learning outcomes and assessment results, (3) qualitative data consists of student responses, opinions, and opinions about the interventions determined, the influence of learning models on student learning outcomes, student responses about the effectiveness of learning during the learning process, (4) quantitative data collection techniques in the form of data on student learning outcomes by providing tests to students and data on the assessment of student activities using assessment sheets.

3. Result and Discussion

Based on the results of the research on the Recapitulation of Learning Formative Test Scores, it can be seen in Table 1.

Table 1. Recapitulation of Learning Formative Test Scores

Learning	Formative Test Results			Percentage of Completion
	Average	Incomplete	Complete	
Conventional Learning	60,71	12	11	52,38%
Canva App Learning Media	74,57	2	19	90,48%

Table 1. Explain the results of filling out a questionnaire about the influence of canva application learning media on student learning outcomes. In conventional learning, 11 students or 52.38% were students who completed their studies and in learning with canva application learning media became 19 children or 90.48% and in learning with canva application learning media, students who have actually shown an increase in learning outcomes as many as 21 children with an average score of 74.57 or an increase of 13.86. Other observational data on the effect of learning with canva application learning media on learning quality can be seen in Table 2.

Table 2. The Influence of Canva App Learning Media

Statement	Answer				Total
	SS	S	S	ST S	
Use of Learning Media	55	7	1	0	63
Effectiveness of	60	3	0	0	63

Learning Media					
Perception and Satisfaction	63	0	0	0	63
Impact on Teaching	59	4	0	0	63
Sum	237	14	1	0	252
Score generation	948	42	2	0	992
Total score	1008	1008	1008	1008	4032
Value	94,05	4,17	0,20	0,00	98,41
Percentage	94,05	5,56	0,40	0,00	100,00

Table 2. The above shows the results of a study on the influence of Canva's app learning media on several aspects, including the use of learning media, its effectiveness, student perception and satisfaction, and the impact on teaching. From the data presented, it can be seen that the majority of respondents gave a positive assessment with a total score of 1008 for each category. The use of learning media received the highest score with 63 respondents strongly agreeing (SS) and agreeing (S), indicating that the Canva app is considered effective in supporting the teaching and learning process. In addition, this table also lists the final score and percentage of the overall results obtained. The total score reached 98.41 with a percentage of 100%, indicating that all aspects studied received an excellent response from the participants. This shows that the use of the Canva app is not only well received by students but also contributes positively to their overall learning experience.

Discussion

This research improves the quality of mathematics learning in grade VI of SD Negeri 2 Krakal through the use of the Canva application. The Canva app, known as an intuitive graphic design tool, allows teachers to create engaging and interactive teaching materials. By utilizing

visual features such as infographics, posters, and presentations, students can more easily understand math concepts that are often considered difficult (Arwanda et al., 2024). According to Prabowo (2021), the use of visual media in learning can significantly increase students' motivation and interest in learning. The results show that the application of the Canva app in the learning process not only improves students' understanding of the material but also improves their engagement during the lesson (Diman et al., 2024); Ilham et al., 2024). Students feel more enthusiastic when learning by using innovative and creative media. This is in line with the opinion of Rahmawati (2020) who states that the integration of technology in education is able to create a more dynamic and interactive learning environment, thereby encouraging active participation from students

In addition, an evaluation of learning outcomes showed an increase in average scores on the final exam after the implementation of this method compared to before using Canva (Amirudin & Zanthy, 2024). Data from the research table indicates that the majority of respondents give a positive assessment of the effectiveness of the learning media. Thus, it can be concluded that the Canva application contributes significantly to improving the quality of mathematics learning at SD Negeri 2 Krakal (Sari & Hidayati, 2022). The application of technology like this needs to be continuously developed so that the educational process is more relevant to the needs of the times.

4. Conclusion

The conclusion of this study shows that the use of the Canva application significantly improves the quality of mathematics learning in grade VI of SD Negeri 2 Krakal. Through the application of interesting and interactive visual media, students not only better understand

mathematical concepts, but also show increased motivation and involvement in the teaching and learning process. The results of the evaluation showed higher average scores on final exams after the use of the app, confirming that the integration of technology in education can have a positive impact on student learning outcomes. Therefore, it is recommended that teachers continue to utilize digital tools like Canva to create a more effective and enjoyable learning experience.

References

Ali, M., Nurhayati, R., Wantu, H. M., Amri, M., & Santosa, T. A. (2024). The Effectiveness of Jigsaw Model Based on Flipped Classroom to Improve Students ' Critical Thinking Ability in Islamic Religious Education Learning. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *8*(5), 1069–1078. https://doi.org/10.31004/obsesi.v8i5.6190

Amirudin, N. H., & Zanthy, L. S. (2024). The Development of Canva-Assisted Problem-Solving Approach Teaching Materials to Improve Students' Mathematical Communication Ability on Vocational School based on Learning Independence. *(Jiml) Journal of Innovative Mathematics Learning*, *7*(2), 220–230. https://doi.org/10.22460/jiml.v7i2.19743

Arwanda, Z., Widianto, D. N., & Pradana, D. D. (2024). Effectiveness of using digital media based on canva application in primary school learning : A Systematic Literature Review Universitas Muhammadiyah Kotabumi. *JUPERIM: Jurmal Perkembangan Ilmiah Multidisiplin*, *1*(1), 12–22. https://ojs.ruangpublikasi.com/index.php/juperim/article/view/96/20

Asnur, L., Jalinus, N., Faridah, A., Apra, T., Ambiyar, R. D., & Utami, F. (2024). *Video-blogs (Vlogs) -based Project : A Meta Analysis*. *14*(5), 1553–1557.

Azizah, W., Oktavia, N. A., & Mudinillah, A. (2022). The Use of The Canva Application in The Learning of Maharah Kitabah at The Islamic Boarding School Prof. Hamka Maninjau Class VII. *Scientechno: Journal of Science and Technology*, *1*(1), 15–24. https://doi.org/10.55849/scientechno.v1i1.2

Darmawati, B., Darmayanti, R., & Santiago, P. V. da S. (2024). Contemporary Mathematics Learning: Instagram-based math learning medium increased elementary school students' math literacy. *Journal of Teaching and Learning Mathematics*, *1*(2), 142–150. https://doi.org/10.22219/jtlm.v1i2.31310

Dewanto, D., Wantu, H. M., Dwihapsari, Y., Santosa, T. A., & Agustina, I. (2023). Effectiveness of The Internet of Things (IoT)-Based Jigsaw Learning Model on Students' Creative Thinking Skills: A- Meta-Analysis. *Jurnal Penelitian Pendidikan IPA*, *9*(10), 912–920. https://doi.org/10.29303/jppipa.v9i10.4964

Diman, D., Zanthy, L. S., Hendriana, H., & Fitrianna, A. Y. (2024). Practicality Tests of Teaching Materials on Series and Sequences using Canva Media through Realistic Mathematical Approach. *(Jiml) Journal of Innovative Mathematics Learning*, *7*(1), 67–75. https://doi.org/10.22460/jiml.v7i1.19132

Edy Nurtamam, M., Apra Santosa, T., Aprilisia, S., Rahman, A., & Suharyat, Y. (2023). Meta-analysis: The Effectiveness of Iot-Based Flipped Learning to Improve Students' Problem Solving Abilities. *Jurnal Edumaspul*, *7*(1), 2023–1492.

Friska, J., Pramuaniati, I., & Mahriyuni. (2023). Effectiveness of using Canva Application to Improve Learning Outcomes of Tenth Grades Students. *Jurnal Penelitian Dan Pengembangan Pendidikan*, *7*(3), 421–427. https://doi.org/10.23887/jppp.v7i3.67879

Ilham, I. S., Kusmiyati Arum Ningsih, Siti Rachmah, & Rasilah Rasilah. (2024). IT-Based Media in Mathematics Learning in Elementary Schools. *Journal of Mathematics Instruction, Social Research and Opinion*, *3*(3), 285–296. https://doi.org/10.58421/misro.v3i3.273

Indriyani, V., Fendi, H., & Haron, R. B. (2024). The Influence of Online Self-Regulated Learning

on BIPA Teaching Material Development Skills Using the Canva Application. *KEMBARA Journal of Scientific Language Literature and Teaching*, *10*(1), 147–160. https://doi.org/10.22219/kembara.v10i1.27812

Melinia, S., & Nugroho, N. (2022). Creating a Video Using Canva Application as an English Learning Media of Recount Text Material. *JEdu: Journal of English Education*, *2*(2), 118–129. https://doi.org/10.30998/jedu.v2i2.6644

Novitasari, Y., Deviana, T., & Widuri, A. (2024). Improving mathematics learning outcomes on subtraction material using canva-based learning media for grade 1 elementary school students. *Jurnal Pendidikan Dasar Nusantara*, *9*(2), 289–299. https://doi.org/10.29407/jpdn.v9i2.20880

Oktarina, K., Suhaimi, Santosa, T. A., Razak, A., Irdawati, Ahda, Y., Lufri, & Putri, D. H. (2021). Meta-Analysis: The Effectiveness of Using Blended Learning on Multiple Intelligences and Student Character Education During the Covid-19 Period. *International Journal of Education and Curriculum Application*, *4*(3), 184–192. http://journal.ummat.ac.id/index.php/IJECA/article/view/5505

Putri Pratiwi, W., Suprapto, E., & Moeawanah, S. (2023). Upaya Meningkatkan Hasil Belajar Matematika Melalui Penggunaan Media Pembelajaran Berbasis Aplikasi Canva Pada Siswa Kelas Vi Sdn 2 Glinggangan. *Pendas : Jurnal Ilmiah Pendidikan Dasar*, *8*(1), 4497–4509. https://doi.org/10.23969/jp.v8i1.7891

Rahman, A. A., Santosa, T. A., Nurtamam, M. E., Widoyo, H., & Rahman, A. (2023). Meta-Analysis: The Effect of Ethnoscience-Based Project Based Learning Model on Students' Critical Thinking Skills. *Jurnal Penelitian Pendidikan IPA*, *9*(9), 611–620. https://doi.org/10.29303/jppipa.v9i9.4871

Santosa, W. H., & Sudirman, A. (2023). Factors Influencing the Implementation of Cooperative Learning: Elementary School Teacher Education Department Students' Perspectives. *Edunesia: Jurnal Ilmiah Pendidikan*, *4*(3), 1031–1048. https://doi.org/10.51276/edu.v4i3.501

Santoso, C. R., Agustin, F. W., & Zahroni, A. (2024). *Empowering Indonesian Language Education through Canva : A Collaborative Project by Multiple Universities*. *2*(December), 272–288.

Santoso, C. R., & Amelia, N. D. (2024). *Utilization of Canva in Enhancing the Creativity of NU Teachers in Distance Learning*. *1*(1), 39–52.

Santoso, H. A., & Istiqomah, N. R. (2023). Using Canva to Create Visual Materials in Mathematics Education. *Journal of Mathematical Pedagogy (JoMP)*, *3*(2), 114–120. https://doi.org/10.26740/jomp.v3n2.p114-120

Wantu, H. M., Muis, A., Zain, A., Hiola, S. F., Agustina, I., Santosa, T. A., Yastanti, U., & Nugraha, A. R. (2024). Effectiveness of Think-Pair-Share and STEM Models on Critical Thinking in Early Childhood Education. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, *8*(5), 1320–1330. https://doi.org/10.31004/obsesi.v8i5.6202

Widiastuti, D. E. (2024). *The implementation of Canva as a digital learning tool in English learning at vocational school*. *5*(2), 264–276.

Winiasri, L., Santosa, T. A., Yohandri, Y., Razak, A., Festiyed, F., & Zulyusri, Z. (2023). Ethno-Biology Learning Model Based on Design Thinking to Improve Students' Critical Thinking Skills. *Jurnal Penelitian Pendidikan IPA*, *9*(9), 7767–7774. https://doi.org/10.29303/jppipa.v9i9.4213

Wumu, A., Mursalin, & Buhungo, T. J. (2023). Effectiveness of Problem-Based Learning Model Assisted by Canva-Oriented Pancasila Student Profiles to Improve Scientific Literacy. *Jurnal Penelitian Pendidikan IPA*, *9*(8), 5892–5898. https://doi.org/10.29303/jppipa.v9i8.4022

Yuanta, F., & Larasati, D. A. (2023). Developing Canva-Based Learning Media on Maps and Class Layout for Third Graders of Elementary School. *Education and Human Development Journal*, *8*(2), 66–75.

Zulkifli, Z., Satria, E., Supriyadi, A., & Santosa, T. A. (2022). Meta-analysis: The effectiveness of the integrated STEM technology pedagogical content knowledge learning model on the 21st century skills of high school students in the science department. *Psychology, Evaluation, and Technology in Educational Research*, *5*(1), 32–42. https://doi.org/10.33292/petier.v5i1.144