

The Effectiveness of Canva-Based Learning in Improving Students' Visual Literacy

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Abstract

This study aims to measure the effectiveness of Canva-based learning in improving visual literacy among students, given the importance of the ability to interpret, understand, and communicate meaning through visual elements in the digital age. This study used a pre-experimental method with a One Group Pre-test Post-test design, which was conducted at SDN Bejjong 2 Trowulan Mojokerto in May with 32 fifth-grade students as research subjects. Data were collected through pre-tests and post-tests using the Canva application to measure the improvement in students' visual literacy, with 11 indicators according to Avgerinou. Data analysis was performed using SPSS, with the results of the Paired Sample T -Test showed a significant increase in the post-test average score (49.16) compared to the pre-test (37.13), with a difference of 12.03 points and a significance value of 0.000 ($p < 0.05$), which clearly proves that Canva is effective in improving students' visual literacy.

Keywords: Learning Media; Canva; Visual Literacy; Elementary School.

Abstrak

Penelitian ini bertujuan untuk mengukur efektivitas pembelajaran berbasis Canva dalam meningkatkan literasi visual pada siswa, mengingat pentingnya kemampuan menafsirkan, memahami, dan mengkomunikasikan makna melalui elemen visual di era digital. Penelitian ini menggunakan metode pre-eksperimen dengan desain One Group Pre-test Post-test, yang dilaksanakan di SDN Bejjong 2 Trowulan Mojokerto pada bulan Mei dengan

Artikel Info

Received:

July 21, 2025

Revised:

August 19, 2025

Accepted:

October 25, 2025

Published:

December 10, 2025

subjek penelitian yang terdiri dari 32 siswa kelas V. Data dikumpulkan melalui pre-test dan post-test melalui aplikasi Canva untuk mengukur peningkatan literasi visual siswa, dengan 11 indikator menurut Avgerinou. Analisis data dilakukan dengan menggunakan SPSS, dengan hasil uji Paired Sample T-Test menunjukkan peningkatan signifikan pada nilai rata-rata post-test (49,16) dibandingkan pretest (37,13), dengan selisih 12,03 poin dan nilai signifikansi 0.000 ($p < 0.05$), yang secara tegas membuktikan bahwa media Canva efektif dalam meningkatkan literasi visual siswa.

Kata Kunci: Media Pembelajaran; Canva; Literasi Visual; Sekolah Dasar.

A. Introduction

The development of digital technology has brought about major changes in the way humans obtain, convey, and manage information. The world of education, as one of the fields directly affected, is required to continue adapting to current technological advances (Permatasari dkk., 2024). One form of adaptation is strengthening digital literacy skills among students. Digital literacy encompasses the ability to use technological devices wisely, access information from various digital sources, and understand, evaluate, and process that information critically. In the context of 21st-century learning, digital literacy has become a basic competency that students must master from an early

age, including at the elementary school level (A. Rahmatang dkk., 2025).

One important branch of digital literacy is visual literacy, which refers to the ability to interpret, understand, and communicate meaning through visual elements such as images, symbols, colors, graphics, and illustrations. This skill is increasingly important because most of the information consumed by students today is visual, whether through social media, educational videos, presentations, or digital books (Rahayu & Saputra, 2022). Visual literacy is also closely related to critical thinking, as students are required to understand the implied meaning of visual representations that are not always conveyed in words. Therefore,

strengthening visual literacy from an early age is crucial for developing students who are not only technologically proficient but also capable of analytical and creative critical thinking.

In supporting the strengthening of digital and visual literacy, there are various digital learning platforms that are widely available and used by teachers and students, such as Google Classroom, Moodle, and Edmodo. There are also interactive platforms such as Kahoot, Quizizz, Padlet, and so on. These platforms are used to increase student participation and engagement in the learning process and also help teachers manage classes, distribute materials, and evaluate learning outcomes both online and offline. Each of these platforms offers different features and approaches, ranging from quiz-based evaluations to collaborative discussions. However, not all platforms provide ample space for students to express their understanding visually and creatively.

One platform that dominates the visual and creative abilities of students in conveying information is Canva. The

use of Canva in learning activities can support the development of these skills. Canva, as a web-based graphic design platform, is widely known as a tool that supports the improvement of students' creative thinking and digital literacy skills. The various features provided by Canva allow students to produce visual works such as posters and brochures in a simple yet attractive way (Aulia dkk., 2023). In addition to encouraging creativity, the use of Canva also plays a role in helping students understand the concept of information visualization, which ultimately makes it easier for them to convey ideas and messages through digital media (Fadiyah dkk., 2024). Its high accessibility and diversity of features make Canva an effective tool for improving creative thinking skills while strengthening students' digital literacy.

Thus, Canva acts as a platform that can facilitate students in channeling their creativity and producing original works through visual media, such as creating posters and brochures. Designing posters and brochures is one effective method for honing students' creative thinking skills. This process also requires

conceptual thinking skills in organizing information and messages to be conveyed to the audience (Yudi & Rohma, 2022). Through this task, students are trained to think structurally about the theme, select appropriate visual elements, and convey information in a concise yet meaningful way (Krauss & Boss, 2013).

This research was conducted at SDN Bejjong 2 Trowulan, Mojokerto Regency, focusing on fifth-grade students. Fifth grade was chosen as the research subject based on the consideration that students at this level generally have basic skills in using technology and the potential to develop digital literacy. In addition, fifth-grade students are in a transitional period towards higher education, where digital literacy and visual literacy skills are becoming increasingly important (Pei dkk., 2025). Therefore, it is necessary to conduct a study on how the use of the Canva application can support the development of these skills.

Previous studies with a similar focus to this study include research conducted by Mita Permatasari et al. in 2024 entitled “*Canva Training by*

Teaching Campus Students in Developing Digital Literacy Skills in Educational Environments” using a descriptive qualitative approach, which stated that Canva training is effective in improving the digital literacy of teachers and students. However, this study did not specifically highlight the aspect of visual literacy (Permatasari dkk., 2024). Meanwhile, research by Andi Annisa Sulolipu et al. in 2025 entitled “*Visual Learning with Canva: Improving Student Digital Literacy with Interactive Design Media at SMA 23 Makassar*” used a practice-based training (workshop) method and simple evaluation through quizzes, simulations, and feedback. The study revealed that students were more creative, productive, and motivated in learning (Sulolipu dkk., 2025). However, the literacy studied was limited to digital literacy in general and did not explicitly include the dimension of visual literacy.

Based on the above studies, this study has a significant difference in that it focuses on the influence of Canva on students' visual literacy, which refers to 11 indicators, including visual vocabulary knowledge, visual rules knowledge, visual thinking,

visualization, visual reasoning, critical perspective, visual discrimination, visual reconstruction, visual association, meaning reconstruction, and meaning construction (Avgerinou, 2009). The approach used is a pre-experiment (one group pre-test and post-test) with quantitative analysis. Another objective of this study is to provide opportunities to utilize technology and communicate information visually. By utilizing Canva media, it is hoped that students will be better prepared to face the challenges of an increasingly advanced digital era and have competencies relevant to future needs.

B. Methods

This type of research uses pre-experimental research, which is an experimental research design that uses an experimental group without a control (comparison) group. The indicators in this study refer to Avgerinou's 11 visual literacy competencies, which include visual vocabulary knowledge, visual rules knowledge, visual thinking, visualization, visual reasoning, critical viewing, visual discrimination, visual reconstruction, visual association,

meaning reconstruction, and meaning construction (Avgerinou, 2009). These competencies were selected because the generalization domain consists of objects or subjects that have certain qualities and characteristics determined by the researcher to be studied and then conclusions are drawn. Then, learning is measured before and after the treatment.

The research design used was a one-group pre-test-post-test, which involved one experimental group without a control group for comparison (Mukhid, 2021). The group was given religious education on the chapters of Hajj and Umrah using conventional methods and learning using Canva media with the output of poster creation. Before the treatment, the group will be given a pre-test to measure their initial level of visual literacy, and after the treatment, they will undergo a post-test to see the significance of Canva media as learning that supports students' visual literacy. The population in this study were 32 fifth-grade students of SDN Bejijong 2 Trowulan Mojokerto for the 2025/2026 academic year. This study observed two variables, namely the independent variable and the dependent variable. The

independent variable in this study is visual literacy media in the form of Canva, while the dependent variable is poster making. To avoid misinterpretation of the research variables, the author clarifies the operational definitions of the variables, namely:

1. Visual literacy media in the form of Canva

Visual literacy media is a learning medium that emphasizes understanding messages communicated through spatial frames that utilize objects, images, and time, and their arrangement. To support visual literacy, students use Canva, which is an online graphic design platform for creating various types of designs such as posters, presentations, book covers, and so on (Indrianto, 2021).

2. Creating posters

This is a creative process carried out by students to convey ideas, information, or specific messages in a visual form that involves images, text, colors, and layout in an integrated and communicative

manner. The posters created by students use the Canva platform, utilizing the school's ChromeBook facilities. The posters were made by students in groups because the facilities were limited. This was part of a visual project-based learning activity designed to develop visual literacy skills. Creating posters using Canva allowed students to channel their ideas and thoughts through visual representations that were not only aesthetically appealing but also informative and communicative (Mawarwati dkk., 2024).

3. Using Research Instruments

Research instruments are tools used to measure a phenomenon, whether natural or social, that is being observed. In this study, the instruments used include pre-test sheets, post-test sheets that serve to assess the effectiveness of Canva in supporting students' visual literacy, and documentation as supporting data. The pre-test and post-test instruments are in the form of a Likert scale, which is an assessment scale used to measure

the attitudes, opinions, and perceptions of a person or group of people about social phenomena (Sugiyono & Lestari, 2021). Each statement in the questionnaire was designed using a 5-point Likert scale (strongly agree, agree, disagree, strongly disagree), with the aim of measuring the extent to which the statements were in line with the characteristics of students' visual literacy. Before being implemented, this instrument underwent a validation process by two lecturers who are experts in the field of education, namely Jiphie Gilia Indriyani and Dian Candra Rini Novitasari. The experts assessed the suitability of each statement item with the visual literacy indicator aspects. The results of the validation process showed that all items were valid and could be used. Then, the instrument was tested for reliability with a Cronbach's Alpha value of 0.781, which indicated a high level of reliability and was suitable for collecting data related to students' visual literacy. Data

analysis was performed using ANCOVA statistical tests to determine whether there were significant differences in supporting students' visual literacy based on the application of Canva media. In the calculation, if the t-count value is greater than the t-table, then there is a significant difference between the pre-test and post-test results. However, if the t-count value is smaller than the t-table, then the difference between the two results is considered insignificant.

C. Result and Discussion

Result

This study aims to determine the effectiveness of using Canva media in supporting the visual literacy of fifth-grade students at SDN Bejjong 2 Trowulan. Data collection was conducted using pre-tests and post-tests on one experimental group without a control group. Statistical analysis using the Paired Sample T-Test showed a significant increase in students' visual literacy scores after Canva-based learning. The average pre-test score was

37.13, while the post-test score increased to 49.16, with a difference of 12.03 points and a significance of 0.000 ($p < 0.05$), indicating the effectiveness of Canva media in supporting students' visual literacy achievement, as shown in Table 2 below.

Paired Samples Statistics					
		Mea n	N	Std. Deviation	Std. Error Mea n
Pair 1	PRE- TEST	37.1	3	3.925	.694
	POST- TEST	3	2	3.794	.671
	-				
	TEST				

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	PRE- TEST & POST- TEST	32	.202	.267

However, beyond the numbers, this improvement was also evident in the students' learning processes and products, particularly in the creation of posters on the theme of Hajj and Umrah, with a focus on the pillars of Hajj. For example, the digital poster from one of the groups of four, consisting of Rani,

Safia, Zahra, and Viko, is shown in Figure 1 below.



Figure 1. Poster on Hajj and Umrah

Based on the poster, there are visual elements such as the symbol of the Kaaba, the crescent moon, and the silhouette of pilgrims with camels in context. This poster not only has aesthetic value but also conveys religious information with a coherent and symbolic visual structure. The use of gold and black colors signifies the sacred value of the Hajj pilgrimage, while the consistent typography shows their understanding of visual rules and message communication. This is in line

with Avgerinou's 11 competencies, which can be identified through the learning process and the students' final product in the form of digital posters. The following is an analysis based on these 11 competencies:

1. Visual vocabulary knowledge
Students demonstrate an understanding of symbols and visual elements such as the Kaaba, crescent moon, camel, and black and gold colors that represent Islamic values. They can select these elements appropriately to illustrate the theme of the pillars of Hajj.
2. Knowledge of visual principles
The students' posters demonstrate the use of a consistent layout, harmonious font selection, and proportional image composition, such as the structured placement of the title, list of pillars, and illustrations. This indicates an understanding of visual layout principles.
3. Visual thinking
In the design process, students are encouraged to think about how verbal information (such as the sequence of the pillars of Hajj) can be converted into a communicative visual representation. They are able to imagine how the audience will understand the information visually.
4. Visualization
Students express ideas and messages in concrete visual forms. For example, the use of camel silhouettes and pilgrims to visualize the Hajj journey demonstrates their ability to translate concepts into images.
5. Visual reasoning
The selection of symbols and the order of elements in the poster demonstrate logical reasoning. Students arrange the pillars of Hajj from ihram to tertib in accordance with the order of Sharia law, indicating that they understand the relationship between content and visual appearance rationally.
6. Critical thinking
During the poster revision process, students conduct self-evaluations and group discussions on design choices that are inappropriate. They learn to filter visual elements

so that they are not only aesthetically appealing, but also relevant in terms of content.

7. Visual discrimination

Students are able to distinguish between visual elements that are appropriate and inappropriate for Islamic themes. They do not use icons or images that deviate from religious values or contexts, demonstrating sensitivity to the visual content used.

8. Visual reconstruction

Students are able to reconstruct religious information into new visual forms, rather than simply copying from books. They develop creative versions of teaching materials that reflect their own understanding and perspectives.

9. Visual association

The use of illustrations such as camels and deserts is associated with the pilgrimage to Mecca, showing that students understand the relationship between visual symbols and cultural and spiritual contexts.

10. Meaning reconstruction

The posters show that students can reconstruct religious messages in a visual style that is easily understood by their peers. This is evident in the placement of visual elements that reinforce the message, such as the use of flower crowns on the writing to indicate sacredness.

11. Building meaning

The overall design reflects the students' ability to convey spiritual and educational meaning in a communicative manner. They not only convey information but also compose visual experiences that contain religious values.

Thus, the improvement in post-test scores and the quality of students' visual products not only reflects cognitive improvement but also the achievement of holistic visual skills in accordance with Avgerinou's visual literacy theory. This reinforces the finding that Canva, as an interactive medium, is not only technically effective but also pedagogically effective in developing comprehensive visual

literacy competencies in elementary school students.

Discussion

The use of Canva media has been shown to significantly improve students' visual literacy. The increase in scores from the pre-test to the post-test indicates that students are better able to understand, interpret, and communicate visual meaning after Canva-based learning. This can be explained through several aspects. First, in terms of the visual literacy theory proposed by Avgerinou, there are 11 main competencies, including: visual vocabulary knowledge, visual rules knowledge, visual thinking, visualization, visual reasoning, critical view, visual discrimination, visual reconstruction, visual association, meaning reconstruction, and meaning construction. Visual vocabulary knowledge, knowledge of visual rules, critical view (Avgerinou, 2009) are used. Then, the output in Canva-based learning is the creation of posters with the theme of Hajj and Umrah in Religious Education. Students are not only technically involved in designing, but also trained to think conceptually

about the meaning and message to be conveyed through visual elements. In other words, Canva becomes a pedagogical tool that can encourage students' ability to systematically compose visual messages.

Second, these results reinforce previous findings, such as the research by Widyaningrum and Sondari, which shows that Canva is effective in supporting visual learning because it has a user-friendly interface and various design features. The availability of templates, graphic elements, icons, and typography in Canva provides space for students to explore creatively in designing posters (Widyaningrum & Sondari, 2021). This is in line with the principle of project-based learning, which emphasizes active student involvement in producing real products (Sulolipu dkk., 2025).

Third, the use of Canva in learning has also been proven to have a positive impact on improving students' critical thinking. This can be seen in the posters created by students, which not only display information in the form of images but are also structured, use relevant colors and symbols, and place

text in a communicative composition (Basri dkk., 2023). This shows that they are beginning to understand that each visual element has meaning and function, not just decoration.

Fourth, the high post-test scores reflect that students experienced a significant improvement in understanding the relationship between text and visuals. Canva-based learning teaches them to see images as a language, where each visual element has grammar and structure that must be understood and applied. In this context, Canva acts as a medium for visual literacy that is not only technically educational but also semantically. Thus, the significant improvement between the pre-test and post-test not only reflects the success of the method used but also shows that the integration of technology in basic education, particularly through interactive visual media such as Canva, can improve students' cognitive and affective competencies. Canva-based learning is not only relevant but also urgent to be developed in the context of learning in today's digital era.

D. Conclusion

The use of Canva media has been shown to significantly improve students' visual literacy. This improvement is demonstrated by a substantial increase in post-test scores compared to pre-test scores, indicating that students have become more proficient in understanding, interpreting, and communicating visual meaning after Canva-based learning by encouraging students to not only engage technically in design, but also to think conceptually about the visual message they want to convey. The variety of design features available in Canva facilitates students' creative exploration, which is in line with the principles of project-based learning. This platform has also been proven to improve students' critical thinking skills, as reflected in the way they organize visual information in a structured and communicative manner. Canva-based learning effectively teaches students to understand images as a language with its own structure and grammar, making Canva a medium for visual literacy that is both technically and semantically educational. Thus, the integration of technology, especially

through interactive visual media such as Canva, is very important for improving students' cognitive and affective competencies in today's digital age.

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