

Canva's Artificial Intelligence Features and the Creativity of Visual Communication Design Students at the Islamic Centre Vocational School in Cirebon Regency

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ABSTRACT

Advances in artificial intelligence over the past few years have brought about significant changes in various fields, including education. Artificial intelligence technology is not only used to improve learning efficiency but is also beginning to be utilized as a tool in the creative process, particularly in the fields of design and visual media. In the context of vocational education, the integration of artificial intelligence technology is becoming increasingly important as it is directly linked to the needs of the ever-evolving creative industry. One example is the use of AI-based design applications like Canva. Evidence from the field indicates that this application is widely used in the design creation process.. However, the relationship between the use of AI features on Canva and the development of students' creativity still requires further empirical study. The focus of this study is to analyze the relationship between the use of AI features on Canva and the level of creativity among Visual Communication Design students at SMKS Islamic Centre in Cirebon Regency. The approach used is a mixed methods design combining quantitative and qualitative analysis. Quantitative data were obtained through a Likert-scale questionnaire to measure the intensity of Canva AI usage and student creativity based on creativity indicators in design learning. Quantitative analysis was performed using Pearson's Product Moment correlation and showed a correlation coefficient of $r = 0.079$ with a significance level of $p = 0.666$ ($p > 0.05$). The results indicate that the relationship between the use of AI features on Canva and student creativity falls into the very weak category and is not statistically significant. These findings indicate that the use of artificial intelligence based features on Canva does not automatically enhance students creativity. Fostering creativity in students still requires an engaging learning process that provides space for students to explore ideas and develop concepts. The results of the study show that the use of artificial intelligence based features in the Canva app has not yet had a direct impact on enhancing students creativity. The role of teachers in designing learning methods that provide space and encourage the exploration of ideas also determines the improvement of students creativity and technical skills.

Keywords: *Canva AI, creativity, vocational education, visual communication design, digital learning*

INTRODUCTION

The rapid development of digital technology in recent years has brought significant changes to learning models in vocational schools, particularly for practical subjects such as Visual Communication Design (Mayer, 2014). Students must now understand design principles and apply them using technology and software relevant to the creative industry. Canva AI is an example of a widely used and popular platform in both education and the design industry. However, creativity is not merely about producing visually appealing designs. Creativity also involves generating original, flexible, and diverse ideas (Guilford, 1950; Torrance, 1974). Therefore, the question arises as to whether there is a relationship between the use of Canva AI and student creativity, or whether the application plays a greater role in the technical aspects of design production. To date, empirical studies specifically examining the relationship between the use of Canva AI and student creativity at the vocational high school level remain relatively limited. Therefore, research is needed to determine whether there is a relationship between the use of Canva AI and student creativity in Visual Communication Design learning at SMKS Islamic Centre, Cirebon Regency.

With the advancement of artificial intelligence technology, various automation features in design applications are increasingly being used to accelerate the visual production process. These include the use of instant templates, design element recommendations, and AI-powered content generation tools, which provide users with the ability to produce designs quickly and efficiently. In an educational context, this ease of use can be an advantage as it helps students understand the design process practically. However, on the other hand, this convenience also has the potential to reduce the exploration of ideas, which is a crucial component in fostering creativity.

Furthermore, the use of technology in design education is not merely about the final outcome but also about the creative thinking process that occurs during the creation of a piece. Students who rely too heavily on templates or automated features tend to follow pre-existing patterns, thereby limiting their ability to develop ideas independently. This raises further questions regarding the extent to which technology—particularly Canva AI—truly contributes to the development of students' creativity, or whether it is more dominant in enhancing technical aspects such as efficiency and visual neatness.

Several studies indicate that the use of digital technology in learning can enhance student motivation and engagement. However, the effectiveness of technology in fostering creativity heavily depends on how it is utilized within the learning process. Therefore, it is crucial not only to view technology as a tool but also to consider the role of instructional strategies and teacher guidance in encouraging students to remain actively engaged in exploring ideas and developing design concepts independently.

Thus, this study not only seeks to examine the relationship between the use of Canva AI and student creativity but also provides insights into the role of technology in the broader design learning process. The findings of this study are expected to contribute to the development of more effective learning methods, particularly in leveraging AI-based technology without compromising creativity as a core competency in the field of Visual Communication Design.

LITERATURE REVIEW

Creativity Theory in Design Learning

Creativity is an individual's ability to generate new, original, and diverse ideas. Guilford (1950) explains that creativity is related to thinking abilities that include fluency, flexibility, and originality in generating ideas. Torrance (1974) also emphasizes that creativity develops through opportunities to experiment, freedom in developing ideas, and the ability to try various alternative solutions.

In visual communication design education, creativity is not only evident in the final product but also in the various stages of the process, such as concept exploration, visual decision-making, and the ability to develop design solutions and innovations. Therefore, creativity in design is closely linked to a flexible and open-minded approach to generating visual ideas that align with current trends and needs.

Digital Technology in the Creative Process

The use of digital technology in learning activities offers various advantages in the visual production process. Mayer (2014) states that digital media and interactive multimedia can aid in the visualization of ideas and enhance student engagement. In design education, technology enables students to explore various visual alternatives more

quickly and efficiently. At the same time, advancements in artificial intelligence technology in the world of education show that technology not only supports learning efficiency but also opens up opportunities for more adaptive and personalized learning (Zawacki-Richter et al., 2019; Holmes et al., 2019; Ouyang & Jiao, 2021).

However, the use of pre-existing, structured design templates can hinder the creative process. Runco and Jaeger (2012) emphasize that creativity requires freedom to generate alternative ideas. If students rely too heavily on pre-existing structures, opportunities to explore ideas independently may become more limited. Several recent studies have also shown that the use of artificial intelligence in education has mixed effects; while it offers convenience, it also has the potential to influence students' creative thinking processes, depending on how it is used (Wang et al., 2024; Vieriu, 2025).

Previous Studies

Previous research has shown that the use of design applications such as Canva can support the visual learning process. A study conducted by Husni Mubarak (2024) using a quasi-experimental approach demonstrated that the implementation of Project-Based Learning with the Canva application significantly improved students' graphic design skills and learning motivation compared to conventional learning.

There is also a research and development study conducted by Aziz and Utomo (2025) showing that Canva-based learning media is valid, practical, and effective for use in learning. The results of this study indicate an increase in students' motivation and interest in learning when using Canva.

Other studies indicate that the use of Canva in learning can also contribute to improving students' creativity. Learning activities and training based on Canva provide a more engaging learning experience and help students develop visual skills and creative ideas. Recent research indicates that artificial intelligence based technology can contribute to the development of students' creativity. However, these results are heavily influenced by the learning strategies employed (Alshehri, 2023). This suggests that the use of technology alone is not sufficient to enhance creativity without the support of appropriate learning approaches.

However, most previous studies still focus on the use of Canva as a learning medium, on improving learning motivation, or on enhancing students' technical skills. Studies that specifically examine the relationship between the use of AI-based features in Canva and students' creativity are still limited, especially in the context of vocational secondary education.

Research Gap

Although digital design technology is increasingly used in Visual Communication Design learning, studies examining the relationship between the use of AI-based features in design applications and the development of students' creativity are still limited, particularly in the context of vocational secondary education.

Research Position

Given these circumstances, the focus of this study is to examine the relationship between the use of AI features on Canva and the creativity of Visual Communication Design students at SMKS Islamic Centre in Cirebon Regency. This study employs a mixed-methods approach, utilizing quantitative data obtained through a questionnaire and qualitative data derived from an analysis of the students' design works. This approach is expected to provide a more comprehensive understanding of the development of creativity in digital technology-based design education.

METHODOLOGY

This study uses a mixed methods approach that combines quantitative and qualitative analysis. The quantitative approach is used to analyze the relationship between the use of Canva AI as variable X and students' creativity as variable Y through questionnaire data. Meanwhile, the qualitative approach is used to analyze students' design works before and after using Canva AI to observe changes in visual creativity aspects in the design works.

The respondents of this study consisted of 32 eleventh-grade students from the Visual Communication Design program at SMKS Islamic Centre, Cirebon Regency. The selection of respondents was based on their involvement in design learning that utilized Canva AI as a supporting medium.

The research instruments consisted of a Likert-scale questionnaire and analysis of students' design works. The questionnaire was used to measure the intensity of Canva AI usage as well as students' creativity in the design learning process. The Canva AI usage variable was measured through several indicators, namely the intensity of template usage, utilization of visual elements, use of AI-based features, and ease in the design creation process.

Meanwhile, students' creativity was analyzed through two approaches, namely through the questionnaire and design work analysis. The analysis of design works was conducted on several student works before and after using Canva by considering several aspects of visual creativity, namely idea originality, visual composition, use of color, typography, and design concepts. These creativity indicators refer to the creativity theory of Guilford (1950) and Torrance (1974) as well as visual design principles according to Landa (2014).

Quantitative data were analyzed using Pearson Product Moment correlation to determine the strength and significance of the relationship between Canva AI usage and students' creativity with a significance level of 0.05. Meanwhile, qualitative data were analyzed through visual analysis of students' design works to observe changes in creativity aspects before and after using Canva.

This study employs a concurrent mixed methods design, in which quantitative and qualitative data are collected and analyzed simultaneously to provide a more comprehensive understanding of the research problem. This approach was chosen because quantitative analysis alone cannot fully explain the aspects of student creativity. Therefore, it must be supplemented with qualitative analysis. For quantitative data collection, the research population consisted of 32 eleventh grade students in the visual communication design program, selected using purposive sampling. Data were collected via a Likert scale questionnaire that had been tested for validity and reliability and analyzed using Pearson's Product Moment correlation. Meanwhile, for qualitative data collection, the research subjects were the same students, with data collected through observation of the students' design works, which were then analyzed using visual and thematic analysis. Data integration was performed using triangulation to strengthen and explain the quantitative results with the qualitative findings. With the research conducted concurrently, data validity was ensured through validity and reliability tests on the quantitative data and data credibility in the qualitative analysis.

RESULT

This study analyzes the relationship between the use of AI features on Canva and the creativity levels of Visual Communication Design students at SMKS Islamic Centre in Cirebon Regency. The analysis was conducted using a mixed-methods approach that combines quantitative and qualitative data. Quantitative data was obtained through a questionnaire distributed to and completed by 11th-grade Visual Communication Design students under real-world conditions; the results were used to determine the relationship between the use of Canva AI and students' creativity levels via a Pearson Product-Moment correlation test. Meanwhile, qualitative analysis was conducted on students' design works before and after using Canva to observe changes in visual creativity within their designs. This analysis was conducted to gain a more comprehensive understanding of the role of technology in students creative processes in design education (Wang & Chen, 2020).

The variable of Canva AI usage was analyzed based on several indicators, such as the intensity of template usage, the utilization of visual elements, the use of AI-based features, and the ease of the design creation process. Meanwhile, student creativity was analyzed through indicators of the ability to generate design ideas, visual exploration, and the quality of visual composition reflected in the students' design works.

Results of the Quantitative Analysis

Based on the results of the Pearson correlation analysis, a correlation coefficient of $r = 0.079$ was obtained, with a significance level of $p = 0.666$ ($p > 0.05$). These results indicate that the relationship between the use of artificial intelligence based features on Canva and student creativity is very weak and not statistically significant. Thus, the use of technology in design education does not directly lead to an increase in student creativity (Zawacki-Richter et al., 2019). To clarify these results, they are presented in Table 1 below.

Table 1: Pearson Correlation Test Results

Variabel X	Variabel Y	Correlation Coefficient (r)	Significance (p)	Description
Canva AI Usage	Students Creativity	0,079	0,666	Very weak and not significant relationship

Source: Author's analysis and calculations (2026)

The results indicate that the relationship between the use of Canva AI and student creativity is very weak and not statistically significant.

Therefore, based on the quantitative analysis conducted, there is no significant relationship between the two variables in this study.

Analysis of Students' Design Works

Table 2: Results of Students' Design Analysis (Scale: 1 = low, 2 = fair, 3 = good, 4 = very good)

Student	Creativity Aspect	Before Canva AI	After Canva AI	Change
Rafif Wirayudha	Idea Originality	2	2	No Change
	Visual Composition	2	3	Improved
	Color Usage	2	3	Improved
	Typography	2	3	Improved
	Design Concept	2	2	No Change

RAFIF WIRAYUDHA

Photoshop

Canva AI

Cinta Adisti Putri	Idea Originality	2	2	No Change
	Visual Composition	2	3	Improved
	Color Usage	3	3	Stable
	Typography	2	3	Improved
	Design Concept	2	3	Improved

CINTA ADISTI PUTRI

Photoshop

Canva AI



Recruitment Kerja

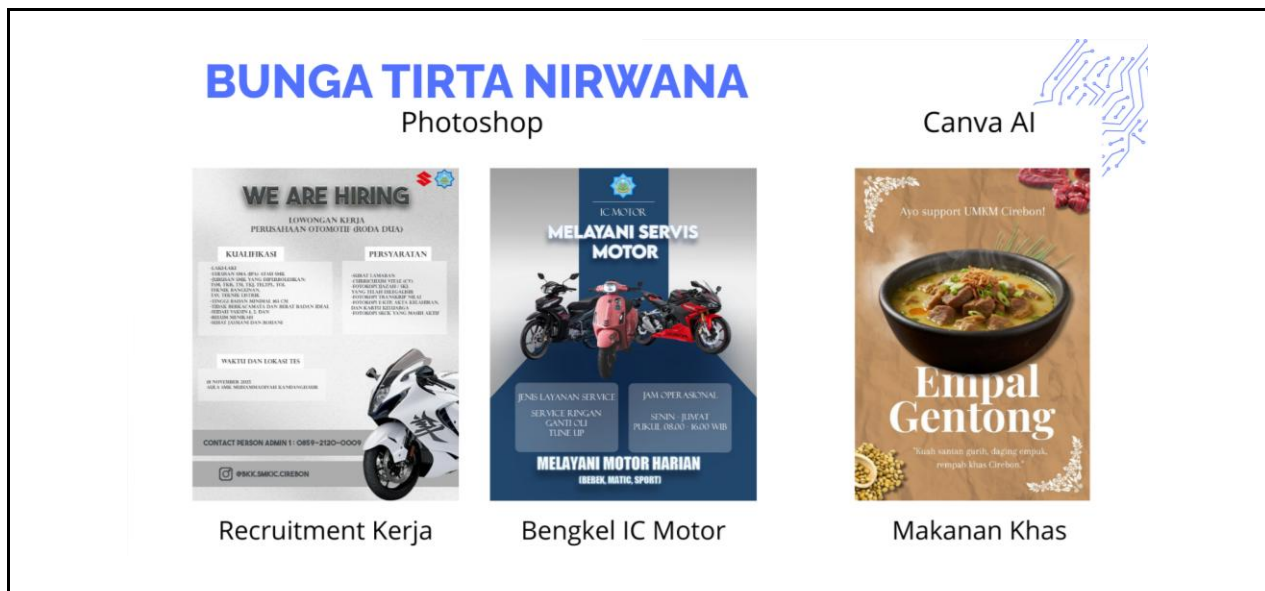


Bengkel IC Motor



Makanan Khas

Bunga Tirta Nirwana	Idea Originality	2	2	No Change
	Visual Composition	2	3	Improved
	Color Usage	2	3	Improved
	Typography	2	2	Stable
	Design Concept	1	2	Improved



Source: Author's analysis and calculations (2026)

In addition to quantitative analysis, this study also analyzed students' design work created before and after using the artificial intelligence features on Canva. The analysis was conducted by examining several indicators of creativity, such as the originality of ideas, visual composition, use of color, typography and design concepts. The results of the observations indicate that the use of artificial intelligence features on Canva helps students improve technical aspects such as neater visual composition and the selection of design elements such as colors and typography that align with their design concepts. These findings suggest that using Canva assists students in enhancing technical aspects like visual composition and the selection of design elements. This aligns with research stating that digital technology can improve efficiency and visual quality in the design process (Holmes et al., 2019).

However, in some of these works, it is evident that students design styles still tend to follow templates with minimal changes or additions of elements, suggesting that the exploration of design ideas has not yet fully developed independently. This finding indicates that the use of technology does not necessarily directly foster students creativity without a deeper exploration process (Runco & Jaeger, 2012).

Several examples of students' design works analyzed in this study are presented in the appendix to provide a visual illustration of the changes before and after the use of Canva in the design learning process.

DISCUSSION

The research findings indicate that the use of Canva AI is not significantly associated with student creativity, based on the quantitative analysis conducted. The very weak correlation coefficient suggests that the frequency of Canva AI use is not directly linked to increased student creativity in Visual Communication Design courses.

Furthermore, the quantitative findings also indicate that the use of AI-based features in Canva does not always align with improvements in students' ability to generate original ideas. This suggests that the presence of technology in the learning process does not automatically influence cognitive aspects related to creative thinking, particularly regarding idea development and conceptual exploration.

These findings are further supported by an analysis of students' design works, which shows that using Canva helps students improve technical skills such as creating more structured visual compositions and facilitates the selection of design elements like color and typography. In some works, it can be observed that students still tend to rely on available templates, meaning that the exploration of design ideas has not yet fully developed independently.

This pattern suggests that while students benefit from the efficiency and guidance provided by Canva AI, they may also face limitations in developing originality due to reliance on pre-existing design structures. Consequently, improvements are more evident in technical skills than in conceptual innovation.

According to Guilford (1950), creativity is related to the ability to generate diverse, flexible, and original ideas. Creativity flourishes when individuals have the opportunity to explore various possible ideas. If students remain dependent on existing template structures, opportunities to develop ideas independently may become more limited. In line with the views of Runco and Jaeger (2012), creativity requires the freedom to experiment and develop various alternative solutions.

From this perspective, the findings of this study reinforce the idea that creativity cannot be fully facilitated by technological tools. Instead, creativity requires an active process of exploration and experimentation that may not be fully supported when students heavily rely on automated or structured features.

In the context of design education, Canva AI appears to play a greater role in helping to enhance technical skills such as layout neatness, selection of visual elements, and time efficiency in the design production process. Therefore, this technology can be understood as a tool to support the learning process, but not as the primary factor determining students' creative development.

Although Canva AI contributes to improving the quality and efficiency of design outcomes, it does not inherently stimulate the emergence of new ideas without additional pedagogical intervention. The role of teachers and flexible learning methods, which provide space for exploring ideas, continues to play a crucial role in fostering students' creativity in the field of design.

In this regard, the integration of AI-based technology into learning must be accompanied by teaching strategies that encourage critical thinking, idea exploration, and independent experimentation. Without such an approach, the use of technology can lead to passive learning behaviors where students focus more on following pre-existing structured templates rather than developing their own creative concepts.

CONCLUSION AND RECOMMENDATION

Based on the research findings, no significant relationship was found between the use of artificial intelligence features in Canva and the creativity of Visual Communication Design students at SMKS Islamic Centre in Cirebon Regency. Quantitative analysis showed a correlation coefficient of $r = 0.079$ with a significance level of $p = 0.666$ ($p > 0.05$); this value indicates a very weak and statistically insignificant relationship between the two variables. These findings suggest that the use of artificial intelligence based technology in design education does not automatically enhance students' creativity. Analysis of students design works also indicates that Canva supports improvements in technical aspects such as visual composition and the selection of design elements, but has not consistently fostered the development of more original ideas. Therefore, the development of students' creativity is influenced not only by the use of technology particularly artificial intelligence technology but also by how the learning process is designed, specifically in providing opportunities and space for the exploration of ideas and the development of independent creativity.

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