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IDENTIFYING THE USE OF CANVA APPLICATION IN IMPROVING CREATIVITY IN INTEGRATED SCIENCE COURSES

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Abstract

Creativity is a crucial aspect of the learning process that can enhance students' conceptual understanding and critical thinking skills. The use of educational technology in the digital era is a potential strategy to support the development of creativity. This study aims to identify the use of the Canva application in improving student creativity in Integrated Science courses. This research uses a descriptive method with a quantitative approach. Data was collected through questionnaires distributed to 35 students selected using a purposive sampling technique. The questionnaire contained 15 statement items related to using the Canva application in the Integrated Science course. The data was analyzed descriptively with the help of Google Forms' data analysis features. The results showed that Canva made it easy for students to create visually appealing content, such as infographics, learning materials, and project reports.

Additionally, this application enables students to express their ideas more creatively and enhances their learning motivation. Canva was also shown to improve creativity indicators such as fluency, flexibility, originality, and elaboration, with 54.3% of respondents feeling more creative when using it. The results of this study recommend integrating technology, such as the Canva application, in lecture activities to encourage increased student creativity in understanding Integrated Science materials.

Keywords: *Canva App, Creativity, Learning Media, Integrated Science, Learning Technology*

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INTRODUCTION

Technological advances in the digital era have been felt and have brought about significant changes. One such major change is in the field of education. Technology provides endless opportunities to improve learning effectiveness through innovative devices and applications. Technology is no longer just a tool but an element that can change how educators deliver material and students understand concepts. One of the significant impacts of technological development is the emergence of various platforms and applications designed to support the teaching and learning process, ranging from classroom management tools to those for creating learning media (Amalia, 2019; Nurhosen et al., 2024).

Learning media is crucial in helping students understand the material that educators deliver. Learning media are generally classified into four main categories: (1) Audio Media, which only involves the sense of hearing, such as sound recordings and music; (2) Visual Media, which involves the sense of sight, such as pictures, graphs, diagrams, and infographics; (3) Audio-Visual Media, which combines hearing and vision, such as video and animation; and (4) Multimedia, which integrates various media to create an interactive and immersive learning experience (Jauhari, 2018). Canva falls into the multimedia category, enabling information delivery through an interactive combination of text, images, and other visual elements (Kocaarslan & Eryaman, 2024).

One application that has recently garnered significant attention is Canva. This web-based graphic design platform enables novice users to create various types of designs quickly and easily (Zaini, 2024). Thanks to its intuitive interface and comprehensive features, Canva allows anyone with no special graphic design skills to create visually appealing work. The app offers a variety of *templates* that can be used to create presentations, infographics, posters, and social media content. Canva's primary advantage is its ability to seamlessly combine creativity and technology, enabling users to bring visual

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ideas to life efficiently (Huda et al., 2023; Fujiyanti, 2023).

The Canva application was officially released in 2013 and received support from the Ministry of Education and Culture through its recommendation of Canva for Education as a government effort to improve the quality of education in Indonesia (Jannah et al., 2024). Canva offers an effective solution for anyone who wants to create high-quality designs but lacks the expertise to use software such as *CorelDraw, Adobe Illustrator, or Adobe Photoshop* (Roziki et al., 2025). Since its launch, Canva has successfully attracted the attention of many users due to its ease of use and benefits, particularly among students and teachers. The app is designed for all levels of education and can be accessed through various online platforms, including the *Google Play Store* and its official website (Supradaka, 2022; Syahrir et al., 2023).

A deep understanding of natural science is essential in education to equip students with relevant skills and knowledge (Murspiroh, 2013). One way to achieve this is through Integrated Science courses. This course integrates various scientific disciplines, including physics, chemistry, and biology, into a comprehensive learning approach. Students are invited to understand how scientific concepts are interconnected, thus creating a more thorough understanding. With this method, students not only understand the theory separately but can also apply their knowledge in real-life contexts (Artawan, 2022).

Integrated science teaching is often dominated by conventional approaches, such as lectures and individual assignments, which are less effective in honing student creativity (Putranta, 2023). Creativity is one of the important skills that students must have, especially in this digital era. Creativity is not only limited to the ability to create something new but also includes the ability to solve problems innovatively, think critically, and combine various concepts in an original way (Hapudin, 2021). The ability to be creative is instrumental in helping students link scientific ideas, which may seem separate in Integrated Science Courses. With the development of technology, numerous learning media are available to support the development of creativity, one of which is the Canva graphic design application. This application enables users to create various types of visual content, including infographics, posters, and interactive presentations, all relevant to Integrated Science learning. Canva, as a technology-based learning medium, offers the advantage of presenting material more engagingly and interactively (Indriani, 2024).

Along with the need to produce more interactive and engaging learning experiences, the use of applications such as Canva in Integrated Science courses can have a significant impact on increasing students' creative abilities. According to Junaedi (2021), previous research has shown that using the Canva application as an online media tool has increased the percentage of learning motivation scores, learning outcomes, and student creativity in each cycle. The Canva application offers various conveniences to help students complete assignments. In addition to increasing creativity, Canva in Integrated Science learning can help students better understand scientific concepts. For example, students can create infographics about biogeochemical cycles or diagrams of chemical reaction processes, which facilitates understanding and trains them to think systematically and analytically. This aligns with the project-based learning approach, which emphasizes the development of 21st-century skills, including creativity, collaboration, and communication (Sadewa, 2023).

Based on the background described, it is essential to examine how Canva applications foster student creativity in the context of Integrated Science education. Additionally, it is essential to assess the extent to which this application can foster the development of student creativity in understanding and presenting Integrated Science learning materials. Thus, using this application is expected to positively impact the learning process and facilitate a deeper understanding of the material.

LITERATURE REVIEW

1. Creativity Ability

The principal capital that a student must master to obtain learning achievement is creativity (Satiadarma & Waruwu, 2003; Zakiah et al., 2020). Creativity is the ability of individuals to generate new and original ideas and devise innovative solutions to problems they face. Creativity is the ability to create new things that enrich an individual's world through discoveries in various fields, such as science and art (Munandar, 2021a; Zakiah et al., 2020). Creativity involves complex mental processes, including critical and imaginative thinking, as well as connecting ideas to produce something new (Guntur, 2023; Hasanah et al., 2023). Thus, creativity is not limited to creating physical products but also encompasses innovative thinking that can be applied in various contexts.

Munandar (2021) suggests that creative thinking is a mental process involving sensitivity to problems, openness to new and unusual ideas, and the ability to connect various information to solve problems. In general, the ability to think creatively is known as creativity. Creative individuals are often considered synthesizing thinkers adept at finding connections between things others might not think of. To realize creativity, intrinsic motivation must be generated within the individual, and extrinsic motivational support must be provided by the environment (Darwanto, 2019). Andiyana, in his research, identified four indicators of critical thinking skills: fluency, flexibility, originality, and elaboration. These indicators emphasize the importance of creativity in generating diverse, flexible, and original ideas. In line with this view, Noer identifies five creative behaviors as a tool for measuring a person's level of creativity. The five behaviors are fluency, flexibility, elaboration, sensitivity, and originality.

Creative thinking often uses several leading indicators: fluency, flexibility, elaboration, and originality. Fluency describes a person's ability to generate many ideas; the more ideas created, the greater the chance

of finding a significant notion. Flexibility demonstrates the ability to adjust mindsets according to the situation, view problems from multiple perspectives, and overcome mental barriers without getting stuck on irrelevant assumptions or rules. Meanwhile, elaboration is the ability to expand and explain an idea or object by adding details to make the concept more complex and well-communicated to others. Finally, originality emphasizes the uniqueness of the ideas generated, focusing on responses that are rarely found and differ from the common ones. Combining these four indicators reflects the essence of creative thinking, where the abundance and quality of ideas are key to generating innovative and valuable solutions (Aisyah et al., 2023; Yuliana, 2015).

2. Canva App

Canva is a graphic design platform accessible through apps and websites, designed to make it easier for users to create visually appealing designs. Compared to professional software such as Adobe Photoshop or Illustrator, Canva offers simplicity that makes it easy for anyone, including beginners (Pratiwi, 2021). With a user-friendly interface, the platform enables anyone, regardless of their design background, to create various graphic works with just a few simple steps (Huda et al., 2023). One of Canva's standout features is its vast collection of ready-made *templates*. These *templates* make it easy for users to produce designs without starting from scratch. From posters, certificates, and infographics to presentation and video *templates*, everything is available and customizable. Users can modify text, colors, images, sizes, and other design elements as needed, offering great flexibility in creativity. This convenience makes Canva popular for individuals and businesses with various needs (Pratiwi et al., 2024).

Canva also supports devices running Android, iPhone, iPad, and PC. The app can be downloaded through the Google Play Store or App Store or accessed directly through browsers like Chrome without requiring additional installation. This flexibility enables users to work at any time and from anywhere. With all these advantages, Canva is a practical design solution, especially for those who want fast, attractive, and easy-to-create design results without requiring special skills (Agustin et al., 2024). Using Canva as a tool for making learning media certainly offers various advantages. With Canva, users can create multiple designs with animation features, *templates*, and page numbering. Designing engaging learning media helps increase creativity and efficiency of time for teachers and students. The media can be presented in various forms, including slides, mind maps, and posters (Syahrir et al., 2023; Umam, 2023).

According to Indriani (2024), the intuitive drag-and-drop feature supports the ease of use of Canva, making the design process easier. Additionally, Canva facilitates collaboration among students during group work. Some of the advantages of Canva include: (1) provides a variety of attractive designs; (2) supports teacher and student creativity through various features; (3) makes it easier and saves time in making learning media; and (4) can be accessed via laptop or mobile device. Research shows that using learning media, such as Canva, can change the learning paradigm, where students are not only the object of learning but also an active part of the learning process. This encourages student confidence and creates a more participatory, collaborative, and interactive learning atmosphere (Muafirotun, 2023; Maharani, 2024).

However, Canva also has some drawbacks. Its use is highly dependent on a stable internet connection, so without internet access, this application cannot be used for designing (Araniri, 2023). Additionally, although Canva offers many free elements, some *templates*, stickers, illustrations, and fonts are exclusive to the paid version. Nonetheless, this is not a significant issue, as Canva offers many interesting free options. Another drawback is the possibility that the resulting design may be similar to someone else's, especially if the same *template* is used. However, with user creativity, unique designs can still be produced (Kharissidqi, 2022).

3. Integrated Science Course

Integrated Science is a physics education study program course for students who want to explore science education. Integrated Science courses combine concepts from various fields of science, such as physics, chemistry, and biology, into a single learning unit (Palukadang et al., 2021). This approach aims to deepen students' understanding of the relationship between various disciplines in explaining natural phenomena. In this way, students are expected to be able to apply the knowledge gained thoroughly in both the educational world and everyday life (Okyranida, 2020).

Science as integrated learning seeks to combine various topics or areas of study. Generally, integrated science studies encompass energy and its transformations, the Earth and its space, living things and their life processes, and matter and its properties (Salumita & Putranta, 2025). All of these areas have an important role in helping students understand natural phenomena. Experts state that integrated learning is a learning process that involves or connects various disciplines. Integrated science learning can be organized and linked through multiple themes, fields of study, or science skills (Amalia et al., 2024; Latipah, 2022). Integrated science learning aims to do more than transfer knowledge to students. This approach also focuses on developing critical thinking, creative, and problem-solving skills, which are crucial in facing existing challenges. By integrating various disciplines, students are expected to understand the relationship between the concepts they learn and apply them in real-life situations (Lestari & Winarto, 2022). Through integrated learning, students acquire the knowledge and skills necessary to address the world's increasingly complex problems (Sumantri, 2019). This approach aims to equip students with competencies that can be applied to solve problems they encounter in the future, both in academic and daily life contexts (Aprina et al., 2024).

4. Learning Media

One of the key determinants of the success of the teaching and learning process in the classroom is the presence of learning media (Utami, 2017). Learning media includes everything used to convey knowledge, information, and skills to students during the learning process. Sintiya and Putranta (2024) explain that learning media can be a variety of physical tools, such as books, pictures, and videos, or digital devices, such as learning applications or software. The primary function of this media is to clarify the material being taught and help students better understand the topics being studied. With appropriate learning media, the interaction between teachers and students can increase, motivating students to be more active in learning activities (Annisa, 2023).

Learning media refers to materials, tools, or techniques used in the teaching and learning process to support the establishment of effective educational communication between teachers and students (Hamdani, 2005). Learning media has a role in channeling material to students. The Minister of Education and Culture of the Republic of Indonesia's Regulation No. 22 of 2016 concerning Education Process Standards states, "Learning media is a tool for the learning process to convey learning materials" (Junaedi, 2021). In the context of learning media, characteristics refer to the uniqueness or specific characteristics of each type of media used in the teaching and learning process. Understanding these characteristics is important to ensure that the selection of learning media is based on the needs and learning objectives (Sumiharsono et al., 2017).

The characteristics of learning media can be grouped based on how they are used and their type. Visual media is a type of media that can be perceived by the eye and contains elements such as shapes, lines, textures, and other visual elements. Audio media is a type of media that has the sense of hearing or ear. This media type conveys information through sound, such as music, narration, podcasts, audio recordings, or educational radio broadcasts. Audio-visual media combines audio and visual elements, allowing them to be seen and heard simultaneously.

Meanwhile, multimedia is a form of media that stimulates multiple senses during a single learning activity. Examples include learning videos, animations, documentaries, or interactive simulations. Different types of learning media can be tailored to meet learners' needs, objectives, and characteristics, thereby achieving optimal learning outcomes. (Parinduri et al., 2022).

RESEARCH METHODS

1. General Background

This study employs a quantitative approach, utilizing a survey method, to investigate the use of the Canva application in enhancing creativity in Integrated Science courses. The quantitative approach is employed because it enables data collection in numerical form, allowing for statistical analysis and the production of objective and measurable conclusions (Creswell, 2014). The survey method effectively collects data from large populations, allowing researchers to systematically measure respondents' attitudes and perceptions (Sugiyono, 2010). The research approach used aims to measure and analyze data statistically. In contrast, the type of research is a survey, where data is collected through questionnaires to obtain information from respondents systematically. In general, the flow of this research can be described through the following diagram:

Figure 1. General Research Flow Chart

2. Participant

The research population comprises all students in the Physics Education Study Program at UIN Sunan Kalijaga who have taken Integrated Science courses in the third semester. This population was chosen because students have been exposed to Canva during the learning process, allowing them to provide relevant and informative feedback. The research sample consisted of 35 students, determined through a purposive sampling technique. This technique was chosen because it focuses on a group of students who meet specific criteria, namely, those with experience using Canva for lecture assignments. According to Sugiyono (2010), purposive sampling is adequate in research that requires in-depth information from respondents relevant to the research objectives. This technique facilitates the selection of ideal samples based on research criteria and objectives (Etikan et al., 2016). The selection of a sample limited to 35 students was intended to ensure that in-depth data analysis could be carried out, even with a small population. The participant characteristics included class, experience using Canva, and level of active participation in project-based assignments. With this approach, the data obtained is expected to provide a representative description of the perceptions of the benefits of Canva in learning.

3. Instruments and Procedures

The instrument used in this research is a questionnaire designed using *Google Forms* (*GForm*). The questionnaire consists of two main parts: the respondent identity section, which includes demographic data such as name and class, and the research question section, which

contains several closed statements using a *Likert* scale (1-5). The answer options consist of 5 answer options. Namely, one strongly disagrees (SD), two disagree (D), three are undecided (UD), four are agreed (A), and five are strongly agreed (SA). The questionnaire consists of 15 statements that assess the leading indicators of creativity, including helping to understand Integrated Science material creatively, making it easier to create engaging visual presentations or assignments, increasing creativity, providing freedom to express ideas, and motivating students to learn.

In addition, the questionnaire also evaluates time efficiency, improved graphic design skills, ease of understanding material through visualization, and the ability to produce original work. Other statements include improving creative thinking skills, facilitating ease of collaboration with friends, boosting confidence in presenting work, offering numerous design options that support creativity, and the relevance of using Canva in integrated science learning. Respondents were allowed to complete the questionnaire only once, with verification via email to ensure data validity. The research stages began with making observations and then continued with the study of relevant literature. Next, the researcher compiled a questionnaire and distributed it to the participants. After the data is collected, the next stage is to analyze it to obtain the research results.

4. Data Analysis Technique

After the data collection process through the questionnaire is complete, the next step is to calculate the score and analyze the results. The data collected from the questionnaire will be automatically integrated and analyzed using the data analysis feature provided by Google Forms. This feature enables researchers to quickly and efficiently obtain summary statistics that include the percentage of respondents for each statement. The results of this automatic analysis provide an overview of how many students agree or disagree with each statement asked. Thus, researchers can quickly identify patterns and trends in students' perceptions regarding the use of the Canva application to enhance their creativity in Integrated Science courses. However, manual calculations can also be done if needed to ensure the accuracy and validity of the data. The percentage of respondents for each statement can be calculated using the following formula:

$$P = \frac{Œ£F}{Œ£N} v ó 100\% \quad (1)$$

Description:

P = percentage

ΣF = respondent's answer score

ΣN = total maximum score

RESULTS

Based on the questionnaire results, the data will be presented in a tabular form and grouped by similar indicators. This grouping aims to facilitate readers' understanding of the relationship between statements and provide a more structured representation of the research results. These indicators include: Material understanding *(*statements 1, 2, 6, 9), creativity and expression (statements 3, 4, 10, 11), efficiency *and* motivation (statements 5, 7), collaboration and confidence (statements 12, 13), and relevance and availability of design (statements 8, 14, 15). Each theme will be displayed in a table with corresponding statement details to facilitate further analysis and interpretation.

1. Material Comprehension

The first indicator used is material understanding, which consists of 4 statements. This statement determines students' understanding of the material when using Canva to study integrated science. The following table presents an analysis of student responses based on questions designed to assess student understanding. These results illustrate students' understanding of the material by using Canva to support students' understanding of integrated science.

Table 1 Material Understanding

No	Statement	SD	D	UD	A	SA
1	Using Canva helps me understand Integrated Science materials more creatively.			8.6%	45.7%	45.7%
2	Canva makes it easier for me to create visually appealing presentations or assignments in Integrated Science courses.				34.3%	65.7%
6	Using Canva makes me more interested in learning science concepts.		2.9%	20%	48.6%	28.6%
9	I find it easier to understand Integrated Science materials through visualizations that I make in Canva.			17.1%	57.1%	25.7%

The results show that most respondents feel that Canva helps them understand Integrated Science materials

better. 45.7% of respondents agreed and strongly agreed that Canva makes learning more creative. This is reinforced by 65.7% of respondents who feel that Canva makes creating visually appealing presentations or assignments easier. In addition, 48.6% of respondents expressed interest in learning science concepts using Canva. Visualizations produced by Canva are also considered to facilitate understanding of the material by 57.1% of respondents. This data reflects that using Canva positively impacts understanding the material, primarily through supportive visualizations.

2. Creativity and Expression

The second indicator is creativity and expression, which consists of 4 statements. Each statement aims to measure the extent to which the use of canvas supports creativity and freedom of expression. The analysis results are expected to provide an overview of the effectiveness of using Canva in supporting the learning process. The following are the results of the analysis categorized in the indicators of creativity and expression:

Table 2 Creativity and Expression

No.	Statement	SD	D	UD	A	SA
3	I feel more creative when doing Integrated Science assignments using Canva.			2.9%	42.9%	54.3%
4	Canva allows me to express my ideas more freely in my Integrated Science assignments.			2.9%	62.9%	34.3%
10	Using Canva helped me produce more unique and original work in the Integrated Science course.			37.1%	60%	37.1%
11	My creative thinking skills have improved through the use of Canva in Integrated Science assignments.			11.4%	62.9%	25.7%

The Creative and Expressive indicator suggests that Canva plays a significant role in enhancing students' creativity and freedom of expression. 42.9% of respondents agreed, and 54.3% strongly agreed with statement 3 that Canva makes them more creative in doing assignments. This is also evident in statements 10 and 11, where most respondents indicate that Canva enables them to express their ideas freely and supports the development of creative thinking. Overall, Canva proved to be an effective tool in encouraging students' creativity while providing ample room for expression.

3. Efficiency and Motivation

Two statements in the efficiency and motivation indicators lead to student use of the Canva application. The statement describes how effective and motivated students use Canva in Integrated Science courses. The data provides an overview of the extent to which students feel effective and motivated in using Canva in Integrated Science courses. The overall results of the analysis of efficiency and motivation indicators are presented in Table 3.

Table 3 Efficiency and Motivation

No.	Statement	SD	D	UD	A	SA
5	I am more motivated to learn Integrated Science with the use of Canva.			20%	54.3%	25.7%
7	The time I spend on Integrated Science assignments is more efficient with Canva.	2.9%		17.1%	45.7%	34.3%

Efficiency and Motivation indicators also show good results. In statement 5, most respondents agreed (54.3%) and strongly agreed (25.7%) that Canva increases motivation to learn Integrated Science. In addition, 34.3% strongly agreed, and 17.1% agreed with statement 7, which states that Canva makes the task completion process more efficient. However, 20% of respondents remained undecided regarding time efficiency, possibly due to varying levels of familiarity with the application.

4. Collaboration and Confidence

Collaboration and confidence need to be studied to determine the level of creative thinking that exists. Two questions were asked related to using Canva in Integrated Science learning to find out the collaboration and self-confidence of students. The statement is given and analyzed to understand student collaboration and confidence in using the Canva application in Integrated Science Courses. The results of the analysis obtained on indicators of collaboration and self-confidence. as follows:

Table 4 Collaboration and Confidence

No.	Statement	SD	D	UD	A	SA
12	Collaborating with friends on Integrated Science assignments is			5.7%	45.7%	48.6%

	made easier with the use of Canva.					
13	I am confident in presenting my work using Canva in the Integrated Science course.			11.4%	48.6%	28.6%

Cannva also has a positive impact on the Collaboration and Confidence indicator. Statement 12 indicates that most respondents (45.7%) and a significant proportion (48.6%) strongly agree that Canva facilitates collaboration in completing tasks. Students' confidence in presenting assignments increased, with 48.6% strongly agreeing and 31.4% agreeing with statement 13. These results indicate that Canva supports not only the understanding of the material but also the development of soft skills such as collaboration and communication.

5. Desigm Relevance and Availability

The last indicator that needs to be analyzed is the relevance and availability of designs. This indicator displays the respondents' evaluations of the relevance and availability of designs offered by the Canva application to support integrated science learning. The questions evaluate how Canva can increase students' creativity in completing tasks and its relevance to learning needs. The Analysis results for the relevance and availability of design indicators are presented in the following table.

Table 5 Design Relevance and Availability

No.	Statement	SD	D	UD	A	SA
8	Canva helps improve my graphic design skills in Integrated Science assignments.			2.9%	48.6%	48.6%
14	Canva provides many design options that support my creativity in completing Integrated Science assignments.			5.7%	51.4%	42.9%
15	The Canva application is very relevant and useful in Integrated Science learning.			5.7%	54.3%	40%

48.6% of respondents felt that Canva helped improve their graphic design skills. More than half (51.4%) also agreed that the design options in Canva support their creativity. Additionally, 54.3% of respondents considered Canva to be relevant and useful in the context of Integrated Science learning. These results underscore the relevance of Canva as a learning tool that supports students' graphic design needs and creativity.

DISCUSSION

In integrated science learning, creative thinking skills are essential for understanding the relationships between scientific concepts (Kurniawan et al., 2023). Creative thinking ability is a crucial asset that students must possess to achieve optimal learning outcomes. Creativity enables students to view problems from multiple perspectives and devise innovative solutions (Oktaviana & Putranta, 2024). Munandar (2021) suggests that creativity is the ability to generate new ideas and creative solutions to problems. In this context, Canva, as a graphic design platform, facilitates students' exploration and development of their creativity in learning integrated science. Indicators of creativity, such as fluency, flexibility, originality, and elaboration, are observed in this study (Dumas et al., 2021).

Based on the study's results, Canva is a tool that supports the development of student creativity in integrated science learning. The results showed that Canva supports the fluency of creative thinking, where as many as 54.3% of respondents felt more creative when using Canva to complete Integrated Science assignments. According to Guilford (1950), fluency refers to the ability to generate numerous ideas or solutions quickly. Canva facilitates this process by providing a variety of visual elements, templates, and intuitive design features, allowing students to develop many ideas rapidly without being constrained by technical design skills. The results showed that Canva provides freedom of expression, with 62.9% of respondents feeling able to express their ideas freely. Canva allows students to create unique designs by combining various elements such as color, shape, and text, which reflects flexibility in creative thinking.

This aligns with Munandar's (2021) view, which emphasizes that flexibility is a crucial ability in creative thinking, enabling the adaptation of approaches to various situations. On the originality indicator, 37.1% of respondents stated that Canva helped them create more original and unique work. Canvas design features, such as the ability to freely arrange visual elements and customize designs as needed, support students in producing work that is different from the basic template. According to Torrance (1974), originality is the essence of creativity, where one can provide unusual yet relevant solutions. In this study, 48.6% of students reported that Canva improved their graphic design skills, indicating their ability to add details to the visual tasks they created. For example, students can use features such as additional graphic elements, animations, or typography to enrich their design content. This supports Andiyana's (2018) view that elaboration helps clarify the ideas generated, making them easier to understand.

While Canva has many advantages, its limitations are worth noting. Reliance on a stable internet connection is one of the main obstacles, especially in areas with limited internet access. Additionally, some premium features that require additional fees can be a barrier for students with financial limitations (Panjaitan et al., 2023).

However, user creativity can overcome these limitations because Canva offers a sufficient number of free elements. Design similarity with other users can also be problematic if you rely too much on default *templates*. This requires students to modify *templates* to suit their assignment needs more creatively. Thus, students can still produce unique designs despite using the same resources (Saputri et al., 2024).

Using Canva can significantly increase creativity because it has met the indicators of creative thinking. In addition, this study supports the view that integrating technology such as Canva in learning can increase student engagement and learning effectiveness. This aligns with constructivist learning theory, which emphasizes the active role of students in the learning process (Atizah et al., 2024). Integrated science learning utilizing Canva provides a fun learning experience and prepares students with 21st-century skills, such as creativity, collaboration, and critical thinking (Widayanti et al., 2024). Thus, Canva can be recommended as an innovative learning media in Integrated Science courses to support the development of student creativity (Amanda et al., 2024).

CONCLUSION

Based on the research results, the use of Canva in Integrated Science courses has a significant positive impact on student creativity development. Canva app appears as an intuitive and easy-to-use graphic design platform. Students can explore their ideas freely, produce original works, and present material visualizations that help better understand Integrated Science concepts. The leading indicators of creativity, such as fluency, flexibility, originality, and elaboration, are well facilitated through Canvas features. Additionally, Canva supports collaboration among students, enhances communication skills, and fosters confidence in presenting work.

Furthermore, the limitations, such as dependence on internet connection and access to premium features, can be overcome with creativity and utilization of the free elements provided. Integrating Canva into the education curriculum, especially in Integrated Science courses, is highly recommended as an innovative learning medium. This platform enhances the quality of learning and encourages students to be actively engaged in a more interactive and engaging learning process. Thus, incorporating Canva into a technology-based learning approach can positively contribute to creating a creative and critical generation ready to face the challenges of an ever-evolving digital world. Using Canva helps students understand the material and prepares them to face challenges in the digital era with 21st-century skills, such as creativity, collaboration, and digital literacy.

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