



PRE-SERVICE TEACHERS' PERCEPTIONS TOWARDS THE USE OF CANVA IN DESIGNING INFOGRAPHICS AT UNIVERSITY IN CIREBON

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Abstract

Based on a review of the literature, this study intends to give perspectives on the use of infographics in addressing educational requirements. The researchers monitored the participants, mainly the pre-service teachers of the PPG Prajabatan programme at one of Cirebon's universities, who created infographics for their assignments using the Canva design tool. In addition to its aim, this study employed a qualitative descriptive design. Questionnaires were used to gather data for this investigation. It was conducted using a questionnaire-based research design. Twenty pre-service teachers were participating. The researcher investigated ten statement surveys of pre-service instructors' perceptions of using Canva as a medium for generating infographics at a university in Cirebon and found good results. This study concludes on the utilization of Canva as a media tool for designing or generating anything, such as infographics. The findings revealed that pre-service teachers believe Canva may impact focus and creativity while creating infographics. The pre-service teacher appears to be really interested in making infographics using Canva, and they become more creative as a result.

Keywords: Canva; Infographic; Technology; IC; Pre-service teachers' perception.

INTRODUCTION

For nearly a decade, the federal government has recognized the role of technology. The United States Department of Education claimed in a 2010, technology is at the heart of virtually every aspect of our daily lives and work, and we must leverage it to provide engaging and powerful learning experiences and content. In today's technologically advanced environment, college students are able to participate in their activities through the use of technology (Yundayani et al. 2019). According to the statement, this means that technology plays an important role in our lives, especially in the field of education, in order to adapt to the developments of the times. As technology continues to advance rapidly and become increasingly sophisticated, it has become an expectation for everyone to possess an understanding of technology as it plays a crucial role in supporting various activities, including education. Currently, incorporating technology into teaching presents one of the major challenges (Kent and Giles 2017). This is partly because technology

integration is time-consuming and complex (Kormos 2022). A crucial skill for 21st-century teachers is the successful incorporation of information and communication technologies (ICT) into their teaching and learning processes (Valtonen et al. 2015). With the integration of information communication technology (ICT) in education, the classroom landscape has started to transform (Arseven et al, 2018). The widespread impact of technology on various aspects of our lives has become evident (Alanazy and Alrusaiyes 2021). As a result, technology holds a crucial role in education, prompting a growing significance in researching methods to support prospective educators in utilizing technology effectively within the classroom.

In the 21st-century era, publishers are continuously innovating and updating infographic tools to create infographics. However, the main focus of this paper is to review Canva as an infographic tool. Titiyanti, Anam, and Retnaningdyah (2022) mentioned that Canva offers a wide range of themes and professional layouts, making it a powerful tool for designing captivating infographics to present teaching materials. Moreover, it is a user-friendly and straightforward platform, allowing users to easily get started and create engaging visuals. One of the visual media tools is Canva, a graphic-design website that utilizes a drag-and-drop interface and provides access to over a million images, graphics, fonts, including millions of photos, photo filters, free icons and shapes, and hundreds of typefaces (Gehred 2020). The pre-service teacher employs Canva as a learning tool, using it to create PowerPoint slides for the content being covered. This allows them to leverage their creativity to design educational materials. Canva is not limited to just PowerPoint slides; pre-service teachers can use it to generate other materials, such as infographics for various subjects, as suggested by (Nanda and Fatimah 2023).

Overall, most research studies on technology media in EFL classes rarely consider the direct use of Canva for the writing process and infographics design. However, Yundayani et al. (2019) reviewed the effect of Canva on students' writing skills and found that the experimental group made significantly fewer writing errors compared to the control group, confirming Canva's positive impact on enhancing students' writing abilities. It's important to note that their study specifically focused on Canva's influence on students' writing skills. Additionally, according to Chicca and Chunta (2020) infographics are primarily utilized to create visual stories by incorporating technology. The article also includes feedback from nursing students regarding the use of infographics in the learning process. Then, Traboco et al. (2022) conducted research on the usefulness of infographics in educational content and how to design effective infographics with the support of online software such as Canva, Adobe, and Venngage. Based on the findings of their study, this research will examine the perceptions of prospective teachers regarding this topic.

Another research study conducted by Husniyah et al. (2023) also examined the effectiveness of Canva as a media tool on students' learning motivation, with a specific focus on its use in creating infographics and the feedback from pre-service teachers related to this. The article provides valuable insights into the impact of Canva on students' motivation to learn. Furthermore, Gehred (2020) conducted a detailed explanation of Canva, providing clearer information about the tool. This research can be helpful for other researchers seeking to understand pre-service teachers' perceptions about Canva. Overall, these studies highlight the significance of Canva as a media tool in educational settings and shed light on its potential impact on students' motivation and learning outcome.

Canva

Canva (www.canva.com/features/) is an online platform that provides design and publishing services. It allows users to create various visual content, such as graphics, presentations, social media posts, and more. Canva offers a free trial for users to explore its basic features. Additionally, it provides more advanced creative services that come with a fee. Users can access a wider range of design elements, templates, and tools by subscribing to their premium plans (Canva 2021). According to Wahyuni (2018) Canva is a practical digital technology that enables users to create infographics, collages, posters, and presentations directly from a web browser or an iPad. She emphasized that Canva offers a simple and innovative approach to designing beautiful graphics. With access to over one million photos, hundreds of adjustable layouts, and quick photo editing features, Canva allows users to collaborate with others seamlessly from anywhere. The versatility of Canva extends beyond teachers, making it valuable for bloggers, marketers, companies, and, of course, students. Using Canva is a straightforward process; first, users need to install the application and create an account. Then, they can search for a template that suits their topic, customize the layouts, and add text. Additionally, users have the option to change the background of the template. Once the design is complete, it can be easily shared on social media or submitted to the teacher via email or WhatsApp.

Yundayani et al. (2019) suggested that Canva serves as a tool for swiftly transforming abstract ideas into concrete site maps. Moreover, it can create an effective learning environment by utilizing various features that influence students' concentration, memory, and attitude. Students who maintain a positive outlook towards their learning situation are more likely to actively participate in the learning process and pay direct attention to the materials presented. Meaningful learning experiences are crucial for college students, as they facilitate easier recollection of information. Canva enables students to engage in the creative process, allowing them to reinforce their learning by recalling past knowledge. Furthermore, as Canva gained popularity, its developers have continually introduced innovations to enhance its services. Currently, users can utilize the platform to create diverse designs for personal and professional needs.

Infographics

The current study consequently suggests an infographic design rubric (IDR) as a criteria-based framework to be employed in the learning process for the production and evaluation of infographics in light of this trend and these competencies. An infographic is a "visualization of data or ideas that attempts to communicate complex information to an audience in a way that can be quickly consumed and easily understood," stated by Smiciklas in a journal of Nuhoğlu Kibar and Akkoyunlu (2017). Infographics utilize a variety of design elements, including pictures and drawings, for this reason in an effort to sway readers' perspectives (Kanbaty, Hellmann, and He 2020). In this situation, infographics may provide data in a practical and appealing manner that may reflect the importance of the data or material contained as well as the user's comprehension of all infographic components (Fragou and Papadopoulou 2020). Based on the perception above, it can be concluded that an infographic is a visual medium that contains elements of images, elements, etc. It can be used to design something in the form of information either image or writing.

Similar to this, Thompson (2015) used infographic production in the classroom to demonstrate learners' ability to leave a visual legacy. Infographic projects are a good learning tool because they encourage students to use invention, design, and writing as part

of their learning processes rather than just searching and referencing (Mendenhall, S., & Summers 2015). Students try to tell fascinating stories while making infographics by acquiring, analysing, and choosing significant research results and then visualizing those tales (Thompson 2015). Using health literacy to examine the efficiency of particular forms of visualizations for encouraging specific health behaviours (Arcia et al. 2016). They collaborated closely with the pictures' target audience to create relevant infographics that communicated and had the desired effect.

Pre-service teacher

The rapid and significant advancement of new information and communication technology (ICT), such as social networking sites, mobile technologies, and cloud computing, has brought about a fresh era in the integration of ICT into the field of education (Teo et al. 2019). Teacher education possesses the potential to serve as a potent catalyst for long lasting transformation and facilitate the incorporation of 21st-century skills into everyday school activities (Häkkinen et al. 2017). The growing significance of technology in the business world and job market emphasizes the increasing importance for teachers to incorporate technology into their teaching practices (Tondeur et al. 2017). Modern educators are expected to integrate digital technologies to enhance the effectiveness of their teaching methods (Guillén-Gámez et al. 2021). During this process, teacher candidates were introduced to digital applications (such as Kahoot, Triventy, Canva, Powton, etc.) that could be used to create digital materials and the steps to use these applications were shared with the pre-service teachers, they were informed that these resources could be accessed either for free or through payment, with or without a specified period of use (Celik 2021). Subsequently, they were tasked with designing their courses while considering this information. While pre-service teachers possess knowledge and skills in digital competences, they faced various challenges while creating and presenting digital content as part of their project assignment in the Teacher Professional Education course and they utilized multiple digital technologies like Canva to design their digital content (Simanjuntak et al. 2023)

METHOD

This study is based on a review of the literature and aims to provide perceptions on the application of the infographic in supporting educational needs. Besides the goal, this study used a qualitative descriptive design. Qualitative research involves engaging with individuals and comprehending their experiences to gain insights into their social reality. The information is gathered through various means, such as interviews, field notes, journals, classroom observations, and open-ended questionnaires. The following data collections in this study were Questionnaires. This study used a likert scale, it is frequently utilized in research conducted through survey questionnaires. Respondents use this scale to express their level of agreement or disagreement with a set of statements, employing a symmetric agree-disagree scale (Barua 2013). The Likert scale's range allows for assessing the intensity of their emotions toward each individual item. Moreover, when analysing multiple items, a pattern with scaled properties can be identified. It was utilized to collect data on the Impact of Canva media used on pre-service teachers' perception of as many as 20 peoples. The researchers have observed the participants, namely the pre-service teachers of the PPG Prajabatan program at one of the universities in Cirebon, who in his assignment made infographics through the Canva design application. The statement questionnaires were adapted from Gehred (2020), Yundayani et al. (2019), and Wahyuni

(2018). To collect the data, pre-service teachers were asked to give their perception in questionnaires created using Google Form.

RESULTS AND DISCUSSIONS

To identify the use Canva in designing infographics on pre-service teachers' perception in one of the universities in Cirebon, descriptive analysis was used to analyse responses to the statements in the questionnaire. The following results of pre-service teacher questionnaire data as presented below.

Table 1 The perception of Canva in designing infographics.

Statements	Strongly agree		Agree		Sufficient		Disagree		Strongly Disagree	
	SA	%	A	%	S	%	D	%	SD	%
Canva is a very popular platform for creating infographics because of its intuitive and user-friendly design offerings.	11	55	8	40	1	5	-	-	-	-
Canva can also be used by everyone, like teachers, students, bloggers, marketers, businesses, and of course preservice teachers can use this application.	9	45	7	35	3	15	1	5	-	-
I think that Canva is regarded as a tool for swiftly converting an abstract concept into a tangible site map.	4	20	14	70	2	10	-	-	-	-
The facilities offered in Canva can affect me in concentration, memory, and creativity.	6	30	12	60	2	10	-	-	-	-
The features in Canva make it easy for me to design infographics easily, faster, creative, and effectively.	11	55	8	40	2	10	-	-	-	-
I can invite others to collaborate on projects and share ideas in Canva.	13	65	7	35	-	-	-	-	-	-
Making digital posters like infographics in Canva can build preservice teacher motivation.	14	70	5	25	1	5	-	-	-	-
Canva can store infographic projects in downloadable formats, such as PNG or PDF, so I can easily use them in a variety of media, like websites, blogs, presentations, and social	13	65	7	35	-	-	-	-	-	-

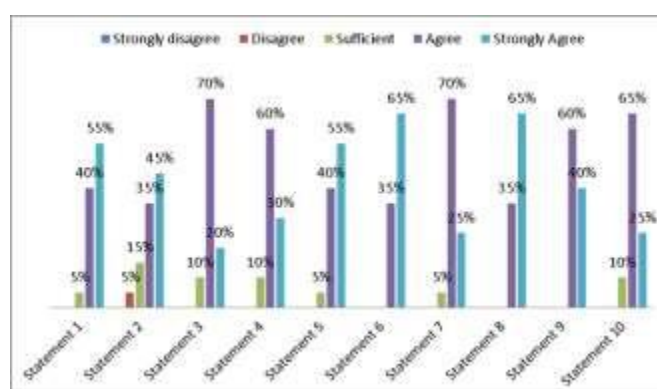
media.

Canva offers a range of ready to-use infographic templates, with a variety of layouts, styles, and themes. This is especially helpful for me who do not have graphic design skills because I can choose templates that suit my needs and edit them as desired.

8 40 12 60 - - - - -

Canva's affordability was also one of the reasons why I was interested in it. With free options and affordable premium subscriptions, Canva allows me with a limited budget to keep access to high quality design tools.

5 25 13 65 2 10 - - - -



The first questionnaire, based on the data obtained above, was completed by 20 students, with the following results: "Strongly Agree" 55% (11 pre-service teachers), "Agree" 40% (8 pre-service teachers), and "Sufficient" 5% (1 pre-service teacher). Thus, based on the statement analysis, the pre-service teachers agreed that Canva was a popular platform for creating infographics. The second questionnaire addressed the perception that Canva can be used by everyone, such as teachers, students, bloggers, etc. The data revealed the following: "Strongly Agree" 45% (9 pre-service teachers), "Agree" 35% (7 pre-service teachers), "Sufficient" 15% (3 pre-service teachers), and "Disagree" 5% (1 pre-service teacher). It can be summarized that they agreed Canva was not only used by them as pre-service teachers.

Canva is considered to be a tool for quickly transforming an abstract idea into a concrete site map (Yundayani, 2019). The findings from this study showed that (SA=20%, A=70%) mentioned that they agreed that Canva can change an abstract concept. Meanwhile, to improve their creativity to design infographics in Canva, based on the statements 4 and 5 (SA=30% & 55%, A=60% & 40%) and (S=10% & 10%). Thus, based on the statements analysis the preservice teachers' perception agreed that Canva has many facilities or features that can be creative, faster, effective and easy to use to design infographics.

The six questionnaires discuss whether Canva can invite other people to collaborate. It can be seen in table.1 that pre-service teachers agreed about that and gave positive perception. As much as 65% (13 pre-service teachers) strongly agree and 35% (7 pre-service teachers) was agree. Thus, based on the statement analysis the preservice teachers agreed that Canva can invite other people to collaborate. The next statements preservice teachers" responded to statement number seven "Making digital posters like infographics in Canva can build preservice teacher motivation." refer to data earned, from 20 students stating "Strongly Agree" 25%, "Agree" 70%, and sufficient 5%. Thus, based on the statement analysis the preservice teachers agreed that Canva can build the motivation.

The preservice teachers" responded to statement number eight, referring to data earned from 20 students stating "Strongly Agree " 65%, and "Agree" 35%. Thus, based on the statement analysis the pre-service teachers agreed that Canva can be downloaded as PNG or PDF. In designing an infographic, Canva provides complete and easy-to-access features for anyone, especially beginners. Based on the statement on query number nine, pre-service teachers agree on this, and it can be seen that as many as 40% (8 pre-service teachers) strongly agree and 60% (12 pre-service teachers) agree. Thus, based on the statement analysis the preservice teachers agreed and gave a positive response that Canva has many templates to create something for beginners. The last questionnaire talked about Canva"s affordability. Refer to data earned from 20 students stating "Strongly Agree" 25%, "Agree" 65%, and Sufficient 10%. Thus, based on the statement analysis the pre-service teachers agreed that Canva is affordable.

Overall, the data indicates a positive perception of Canva as a popular, user-friendly, and effective platform for creating infographics, with various features that cater to different user needs, including educators and pre-service teachers. Its ability to motivate and empower users in their design process is highly appreciated, and its affordability further enhances its appeal among the respondents.

Discussion

This study was oriented towards examining the efficacy of Canva applications for designing infographics from the perspective of pre-service teachers. The research was conducted using a questionnaire design and involved 20 preservice teachers from a university in Cirebon. The researcher studied ten statements in the questionnaires that assessed the perception of using Canva as a medium for designing infographics, and the findings showed positive outcomes. These results are consistent with previous studies conducted by Yundayani et al. (2019), Chicca and Chunta (2020), Traboco et al. (2022) and Husniyah et al. (2023). This research concludes that Canva is an effective media tool for designing and creating various materials, such as infographics. The result of the data shows that pre-service teachers' perception towards Canva is positive. The findings confirm that Canva is a popular platform for designing infographics and is easy to use, which aligns with Gehred (2020). Additionally, the results match Wahyuni (2018) findings, indicating that pre-service teachers perceive Canva as accessible to everyone, not just limited to pre-service teachers. Regarding Canva's ability to convert abstract concepts into concept maps, it relates to creativity and the capability to create visually appealing works. Furthermore, the results demonstrate that pre-service teachers believe Canva positively influences their concentration and creativity in creating infographics. However, there is a difference in the results compared to the research conducted by Yundayani et al. (2019) which stated that Canva could improve writing ability. In this study, Canva is not only seen to improve writing ability but also to enhance infographic design skills. Pre-

service teachers also view Canva as a tool that motivates them, indicating that using Canva learning materials instills a sense of motivation and enthusiasm for learning. Moreover, pre-service teachers express a strong interest in designing infographics through Canva, which enhances their creativity. These findings align with Husniyah et al. (2023) research. Overall, the data suggests that pre-service teachers perceive Canva as a highly useful and motivating platform for creating infographics, supporting their creativity and learning process.

All the data questionnaires regarding statements 8, 9, and 10 showed positive responses from pre-service teachers' perception. They expressed that Canva's downloadable formats such as PDF, PNG, etc., make it easy to use. Additionally, since pre-service teachers are beginners in designing or creating infographics in Canva, the various templates, layouts, styles, and themes offered by Canva are particularly helpful in assisting them with their infographic creations. The final data questionnaire focused on Canva's affordability, which offers both free and premium options for users. These findings are in line with Gehred (2020).

The results of this study were also similar with Traboco et al. (2022) research, showing that Canva is one of the software options with comprehensive features for creating infographics effectively. The researchers discovered that Canva has become a popular choice among prospective teachers for designing infographics due to its diverse range of features. With Canva, users can easily access various design elements, templates, and tools that support the creative process in making infographics. The accessibility and user-friendliness of Canva make it highly suitable for beginners who wish to learn infographic design. Additionally, Canva provides a wide selection of templates that assist prospective teachers in creating engaging and effective educational content. These features empower users to create infographics more easily and quickly, even without in-depth knowledge of graphic design. The results of this study affirm that Canva is an effective solution for creating appealing and informative infographics in educational content. The presence of this software offers a practical and affordable alternative for prospective teachers to convey information visually and reinforce educational messages in a more engaging and understandable manner. With its various advantages, Canva becomes a useful tool for prospective teachers in presenting creative and captivating learning materials for students.

CONCLUSION

Overall, most research studies on technology media in EFL classes rarely directly consider the use of Canva in the writing process and infographic design. This study aimed to examine the effectiveness of Canva applications for designing infographics from the perspective of pre-service teachers. The researcher administered ten statement questionnaires to gauge pre-service teachers' perception of using Canva as a medium for infographic design at a university in Cirebon. The findings revealed positive outcomes, leading to the conclusion that Canva serves as a useful tool for designing various materials, including infographics. Moreover, the results indicated that pre-service teachers perceive Canva's positive impact on their concentration and creativity in making infographics. Pre-service teachers showed a keen interest in utilizing Canva for infographic design, enhancing their creativity. It is worth noting that preservice teachers are beginners in the realm of infographic design using Canva. In summary, this study highlights the importance of exploring the potential benefits of incorporating Canva into EFL classes, particularly in the writing process and infographic creation, as it positively influences pre-service teachers' perception and creative abilities.

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