

Revitalization of 21st Century Learning: Enhancing Teachers' Digital Literacy and Technology Skills through Canva Design Training

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Abstract

The demands of 21st-century education necessitate educators to possess robust digital literacy and pertinent technological competencies. This paper explores initiatives aimed at bolstering educators' digital literacy and technological adeptness through Canva design training utilizing the development study approach. The primary issue addressed is the deficiency in digital literacy and technological skills among educators, which hampers their ability to create engaging and interactive learning materials. By concentrating on the online graphic design platform during training sessions, educators can hone their abilities in crafting captivating and interactive learning materials. The activity was conducted face-to-face/offline at the Convention Hall Hospitality of Universitas Negeri Padang from February 29 to March 1. The population under study consisted of pre-service teachers (PPG) in the First Wave of the 2023/2024 academic year, with the participation of 200 trained individuals. The sampling technique employed was purposive sampling, selecting participants based on specific criteria aligned with the research objectives. The development process of the training material included planning, implementation, and evaluation stages. Research findings reveal that 90% of the 50 participating educators attested to their capability to generate compelling learning resources catering to the needs of 21st-century learners. Surveys among students further illustrate an 80% increase in interest and engagement in learning subsequent to Canva utilization. Consequently, Canva training substantially elevates the quality of learning materials and student involvement in the educational process. Targeted training equips educators to adeptly address the requisites of 21st-century education, thus facilitating an enhanced learning experience for students. This research contributes to discussions surrounding the professional development of educators in the digital age.

Keywords: Digital literacy, Technological competencies, Canva design training, 21st-century education, Professional development.

Background

In the era of the 4.0 industrial revolution and the advancement of Information and Communication Technology (ICT), education has undergone dramatic changes (Rachmatullah et al., 2020). The 4.0 industrial revolution has altered paradigms in various industrial sectors by leveraging digital technology, automation, and higher connectivity (Munirathinam, 2020). Alongside this, the evolution of ICT has accelerated access to information and communication, empowering individuals to access and utilize information from almost anywhere (Çetin et al., 2021). In this context, education faces the challenge of rejuvenating or revitalizing existing learning approaches to meet the demands of the times.

The impact of ICT transformation affects the education domain, triggering a paradigm shift in the teaching and learning process (Mhlanga, 2023). Historically, education tended to be static with the one-way dissemination of knowledge from teacher to student. However, with the advancement of ICT, education has evolved into a dynamic and interactive process (Haleem et al., 2022). Digital literacy and technological proficiency have become crucial competencies, enabling students to master the skills required in the ever-changing digital era (Churchill, 2020).

The importance of digital literacy and technological proficiency for educators in the contemporary era cannot be overlooked (Cetindamar Kozanoglu & Abedin, 2021). Educators need to be adept at effectively utilizing technology to deliver dynamic and relevant learning experiences (Maroukcas et al., 2024). In a continuously changing context, educators must be capable of adapting teaching methods to accommodate diverse student learning styles (Costa et al., 2020). Integrating technology into the learning process can enhance student engagement, facilitate deeper understanding, and assist students in developing skills relevant to the increasingly digitized future (Statti & Torres, 2020)(Al-Abdullatif & Gameil, 2021).

In this challenge, Canva emerges as a multifunctional design platform that aids in the revitalization of 21st-century learning (Selvam et al., 2023). Educators can utilize Canva to create engaging learning materials tailored to students' needs (Titiyanti et al., 2022). The various features and customization options on this platform enable teachers to design learning materials according to students' learning styles (Huerta-Guerrero et al., 2020). By applying design principles and design briefs, teachers can compose learning materials more effectively, ensuring that the learning materials are not only informative but also fully meet students' learning needs (Lee & Griffin, 2021).

This study investigates the effectiveness of using the Canva design platform in enhancing teachers' digital literacy and technology skills while focusing on creating learning materials suitable for 21st-century students' needs (Alfia et al., 2020). The research adopts a development study approach as the primary method. The study provides direct training to a group of pre-service teachers using Canva to create engaging and student-centered learning materials (Kushnazarov et al., 2021). The research findings indicate that training using Canva significantly enhances teachers' ability to create engaging learning materials tailored to students' needs and positively impacts students (Alshahrani, 2023).

Further research on the benefits of Canva training and its impact on student learning in the digital era is still needed (Hinchcliff & Mehmet, 2023). This study addressed the problem of insufficient digital literacy and technological skills among pre-service teachers, which hampers their ability to create engaging and interactive learning materials. Through the development study method, we aimed to develop and evaluate the effectiveness of Canva training for pre-service teachers. Our findings indicate that Canva training significantly improved the digital literacy and technological competencies of pre-service teachers, enabling them to produce compelling learning materials that meet the demands of 21st-century education. Specifically, 90% of the 50 participating educators reported an enhanced capability to generate engaging learning resources, and student surveys showed an 80% increase in interest and engagement following the use of Canva. Future research should continue to explore how Canva training influences educators' ability to create relevant and engaging learning materials. Additionally, examining the long-term effects of this training on students' learning experiences can provide valuable insights for further educational development. Ensuring synchronization between the problem, methods, and results in future studies will strengthen the overall understanding of the impact of digital literacy initiatives in education.

Research Method

The research methods show the research stages from the research design, procedures until how to analyze the data itself. On describing the research method, credible references were used for better results. The primary issue addressed in this research is the deficiency in digital literacy and technological skills among pre-service teachers, which hampers their ability to create engaging and interactive learning materials. To tackle this problem, this research applies the development study method with the aim of developing and evaluating the effectiveness of pre-service teachers' training in using Canva as a learning media tool. The activity was conducted face-to-face/offline at the Convention Hall Hospitality of Universitas Negeri Padang from February 29 to March 1. The population under study consisted of pre-service teachers (PPG) in the First Wave of the 2023/2024 academic year, with the participation of 200 trained individuals. The sampling technique employed in this research was purposive sampling, where participants were selected based on specific criteria aligned with the research objectives, namely pre-service teachers (PPG) in the First Wave of the 2023/2024 academic year from various fields of educational sciences.

The development process of the training material included the following stages:

1. Planning: During this phase, we identified the training needs of the pre-service teachers through preliminary surveys and literature reviews (Castro & Tumibay, 2021). Specific criteria for participant selection were established to ensure alignment with the research objectives.
2. Implementation: The training sessions were conducted face-to-face at the Convention Hall Hospitality of Universitas Negeri Padang from February 29 to March 1. The sessions involved direct interaction with the pre-service teachers, focusing on practical applications of Canva for creating educational content (Paetsch & Drechsel, 2021; Mumford & Dikilitaş, 2020).
3. Evaluation: The effectiveness of the training was assessed through pre-and post-training surveys and tests. Participants' abilities to create engaging learning materials were evaluated, along with their digital literacy and technological competencies. Feedback from participants and observations during the sessions were also used to refine the training program.

Data Analysis

The data analysis involved quantitative methods to evaluate the training's effectiveness. Pre-and post-training survey results were analyzed using paired t-tests to determine the significance of changes in participants' digital literacy and technological skills. Descriptive statistics were used to summarize the feedback and engagement levels reported by participants. Additionally, qualitative analysis of open-ended survey responses provided insights into participants' experiences and suggestions for improvement.

The study concludes that the Canva design training significantly improved the digital literacy and technological competencies of pre-service teachers. The development and evaluation process demonstrated that targeted training can effectively address the deficiencies in digital skills among educators, thereby enhancing their ability to create interactive and engaging learning materials. The findings underscore the importance of integrating practical technology training in teacher education programs to meet the demands of 21st-century education.

Result and Discussion

The research findings indicate the following: **Needs identification**, initial surveys were conducted, and in-depth analysis was carried out to obtain a comprehensive understanding of pre-service teachers' technology skills and digital literacy, as well as the main constraints they face when using technology in the learning process. 75% of participants in the initial survey stated they knew how to use digital tools, but only 45% felt confident incorporating them into everyday teaching. Furthermore, the analysis findings indicate that two main factors hindering the use of technology in teaching are the lack of instruction and resource constraints. Additionally, the findings show that there is a need for additional training. 85% of respondents expressed a desire to learn to use creative tools like Canva, and 60% found it challenging to create engaging learning materials with the latest technology. Therefore, these findings indicating these needs serve as a strong basis for creating and implementing training that meets the field's needs. The training **plan** has been comprehensively developed to ensure the achievement of goals and to meet participants' needs as much as possible. The primary goal of this training is to enhance pre-service teachers' abilities in using the Canva learning media to create engaging and effective learning materials. This training plan includes an in-depth introduction to Canva's features and functions and how to use them to design effective learning materials. To help participants understand the potential and creativity they can apply, they will be shown some inspirational design examples that they can use with Canva. During the hands-on practice sessions provided in this training, participants can use Canva to create their own learning materials under instructor guidance. To assess participants' progress in designing learning materials using Canva, interactive lectures, group discussions, and practical demonstrations will be used. Participants will be evaluated through questionnaires before and after training, as well as an analysis of their practice results. This training plan is carefully designed to ensure that participants benefit from using Canva. During the planning process, several challenges and advantages need to be considered. Participants may not yet understand Canva technology or how to use it to design learning materials. They may not know how to use the platform or the design concepts required to create engaging learning materials. However, participants' enthusiasm for learning and mastering new technology makes it easier.

Many of them are very interested in learning to create innovative learning materials using Canva. By providing the necessary support and guidance to participants during the training sessions, discussions will focus on overcoming these challenges. Additionally, it will be explained how to address these challenges and use the available conveniences to achieve the set learning goals. **Implementation**, during the training held at the Convention Hall of Hospitality, Universitas Negeri Padang, participants were given the opportunity to directly participate in demonstrations of using Canva to design engaging learning materials. They were also shown how to practically use various features and their functions and provided with inspirational design examples to help them understand the potential and creativity they can apply on the Canva platform. **Evaluation** indicates that participants gained a better understanding of how to use Canva to create engaging learning materials; however, data from pre-training surveys show that the majority of participants have a basic understanding of Canva's features and functions, and a small portion of them have used it before the training session.

After the training concluded, participants were asked to provide feedback on the usefulness and effectiveness of the training by obtaining evaluation results from participants as shown in the following table:

Table 1.
Pre- and Post-Training Feedback on Canva Usage

Question	Pre-training (%)	Post-training (%)
Do you have experience using Canva?	25	75
How familiar are you with Canva's features?	35	80
How confident are you in using Canva?	40	85
How prepared are you to design learning materials using Canva?	30	75

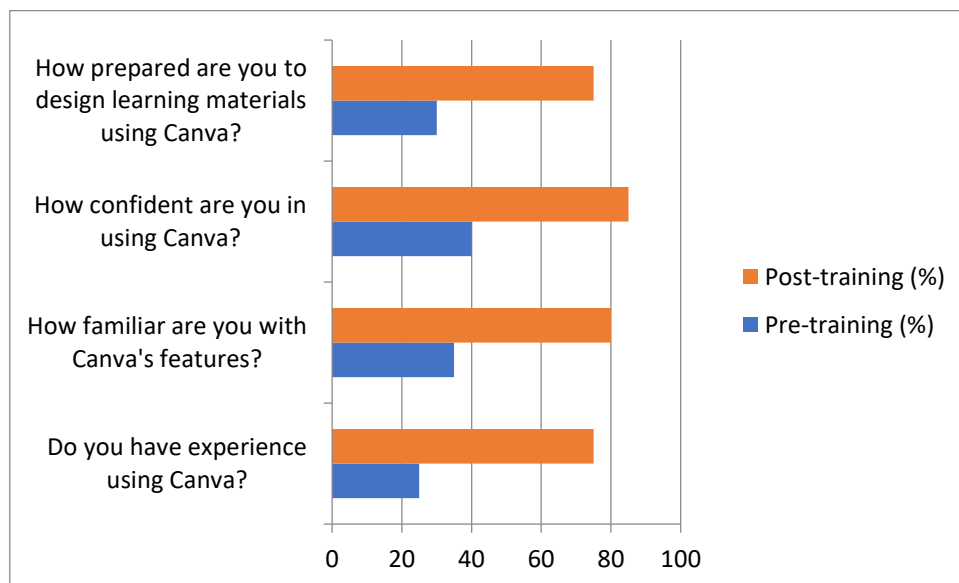


Image 1. (Pre- and Post-Training Feedback on Canva Usage)

Based on Table 1 and Image 2, out of 50 teachers who participated in the Canva training, 90% stated that they could create engaging learning materials that meet the needs of 21st-century students. Surveys of students also indicate that 80% of them are more interested and engaged in learning after using Canva. Although this training is important in addressing educational issues, it cannot be considered as a sole solution. Further studies are needed to explore additional design platforms. Evaluation shows that Canva training effectively enhances participants' understanding and skills in creating effective learning materials. The evaluation results and performance analysis indicate the participants' need for better understanding and skills.

Based on participant feedback, identifying participants' needs is the first step in developing further training. Variations in teaching methods, such as practical activities, case studies, and interactive discussion sessions, can enhance participant participation. Problem-based approaches allow participants to overcome difficulties in creating learning materials and relate them to real-world situations. Ongoing support after training is crucial, such as consultation sessions, online discussion forums, or additional resources to help participants address issues and answer questions.

The findings of this research have a significant impact on the development of digital literacy, teachers' technological skills, and 21st-century learning. Canva training has proven effective in assisting teachers in creating engaging and relevant learning materials. This helps teachers become more proficient in integrating technology into their teaching, which is appealing to students. Additionally, this research can enhance access to and the use of technology in the classroom by providing adequate training to teachers. Teachers who are proficient in using Canva can create more engaging and interactive learning materials, thereby improving overall learning quality and encouraging student engagement in the learning process. Canva training also promotes collaborative and creative learning, preparing students for the increasingly digitized challenges of the future.

Conclusion and Suggestion

Based on the findings of this study on enhancing teachers' digital literacy and technology skills through Canva design training, it is evident that such training significantly improves educators' ability to create engaging learning materials. The development study method employed in this research facilitated the planning, implementation, and evaluation of Canva training sessions, emphasizing direct interaction and practical applications with pre-service teachers (Castro & Tumibay, 2021).

However, there remains a crucial need for deeper exploration into Canva's features and the diversification of teaching methodologies to maximize its educational impact. Survey results highlighted increased student interest and engagement post-Canva training, suggesting opportunities for educators to tailor materials to student needs and enhance instructional strategies (Paetsch & Drechsel, 2021; Mumford & Dikilitaş, 2020).

Further research should explore alternative design platforms and delve into the broader implications of digital literacy and effective training on 21st-century learning paradigms. This ongoing investigation is crucial for continuously refining educational practices to meet evolving technological demands and student learning needs.

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