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Strenghtening the Pedadocial Competence of Kindergarten Teachers through Innovation in Canva-Based Animation Media

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ABSTRACT

The integration of technology-based instructional media has become essential to enhance the quality of early childhood education. However, many kindergarten teachers still face limitations in developing digital animated learning media. This community service program aimed to strengthen the pedagogical and digital competencies of kindergarten teachers at the UM Laboratory Kindergarten through training on creating simple animated learning media using Canva. The program employed a participatory training approach consisting of three stages: conceptual socialization of digital learning media, hands-on practice in animation development, and evaluation through knowledge tests and product-based assessment. The participants comprised 20 kindergarten teachers who completed the entire training program. The results demonstrated a significant improvement in teachers' knowledge, technical skills, and self-confidence in utilizing Canva to design animated learning media aligned with early childhood developmental characteristics. All participants successfully produced simple animated instructional media suitable for classroom implementation. These findings indicate that practice-oriented technology training using user-friendly digital platforms is an effective strategy for enhancing teachers' pedagogical competence and digital literacy in early childhood education, particularly in responding to the demands of 21st-century learning.

Keywords: *Canva, Animated Learning Media, Kindergarten Teachers*

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INTRODUCTION

The development of information and communication technology in the 21st century has become one of the main drivers of social and cultural change in various areas of human life, including education (Rohiyatun et al., 2024). The digital revolution has brought about various innovations that have changed the way humans interact, work, and learn. In the context of education, technological advances have created opportunities for the development of learning systems that are more adaptive, open, and based on the needs of students (Liani, 2024). Digitalization also enables the educational process to take place without boundaries of space and time, thereby broadening access to information and learning resources (Agustin & Dhieni, 2025). These changes require the world of education to continue transforming itself in order to equip students with the relevant skills for the digital age (Salsa et al., 2024). Digital transformation in education is not only related to the use of technological devices such as computers, the internet, or online learning applications, but also involves a change in the pedagogical paradigm (Nugroho et al., 2025). The teaching and learning process now emphasizes collaboration, creativity, communication, and critical thinking as 21st-century skills that need to be developed through technology-based learning (Haryanto & Twiningsih, 2024). This shift requires teachers to no longer be the sole source of knowledge, but rather facilitators who help students build understanding independently through exploration of various digital sources. Thus, technology integration is not merely a technical addition, but an integral part of modern pedagogical practice.

The use of information technology in learning provides various significant benefits for improving the quality of education (Liani, 2024). Digital media enables teachers to present learning materials in a more engaging way through the integration of visual, audio, and audiovisual elements (Arianto, 2023). The combination of these three elements has been proven to increase students' interest and understanding of the subject matter because it involves more senses in the learning process. In addition, technology also supports a differentiated learning approach, which tailors methods, materials, and assessments to the needs and learning styles of each student, making the learning process more effective and inclusive. Previous studies have shown that the use of digital media can increase student motivation and engagement in the learning process (Anggraeny et al., 2024) mentioned that interactive media such as animated videos and visual learning applications can foster curiosity and enthusiasm among students. Interactive media enable active participation, where students are not only recipients of information but also involved in the exploration of knowledge. This is in line with constructivist theory, which emphasizes the importance of direct learning experiences in building meaningful understanding.

The application of learning technology should not only be focused on secondary or higher education, but should actually begin in early childhood education *(PAUD)*. At this stage, children are in their golden age of development, where various cognitive, social, emotional, linguistic, and motor skills develop rapidly (Liani, 2024). This period is an important foundation for shaping children's

character and thinking skills in the future. Therefore, providing creative, interesting learning experiences that are appropriate for children's developmental characteristics is essential for their potential to develop optimally. Young children learn through exploration, play, and direct interaction with their surroundings. Therefore, visual and interactive learning media are very effective in supporting their learning process. Animated media, for example, can attract children's attention because it combines elements of color, movement, and sound that stimulate the imagination and improve memory (Enjela et al., 2024). Through animation, abstract concepts can be visualized concretely so that they are easy for children to understand. In addition, animated media can also foster intrinsic motivation to learn because it creates a sense of joy and enthusiasm during the learning process.

However, in practice, many early childhood teachers still face significant challenges in integrating technology into teaching and learning activities. Limited digital knowledge and skills, a lack of relevant training, and insufficient access to supporting devices are the main obstacles (Nugroho et al., 2025). As a result, most teachers still rely on conventional methods such as lectures or simple teaching aids. In fact, today's children are known as digital natives who have grown up in a digital environment and are accustomed to dynamic visual displays (Puspita, 2025). The mismatch between teaching styles and children's characteristics can reduce the effectiveness of learning. Teachers' limited ability to develop technology-based media also has an impact on the low level of innovation in early childhood education (Saragih et al., 2024). Teachers often perceive technology as something complicated that requires special skills, making them reluctant to try to implement it. In fact, many digital applications are now designed to be easy to use, even for novice users (Nurhikmah, 2024). Therefore, there is a need for intervention in the form of training that can improve the digital literacy of early childhood teachers, while also building their confidence to experiment with learning technology (Tobing et al., 2024).

Early childhood teachers play a strategic role in creating a fun and meaningful learning environment. Therefore, they need to be equipped with the skills to develop digital media that suits children's needs. Practical and applicable training can help teachers understand how to use technology as a pedagogical tool, not just a learning supplement. Efforts to improve teacher capacity in this area are an important part of the continuous improvement of early childhood education quality (Tamphu et al., 2024). One platform that early childhood teachers can potentially use to develop digital media is Canva. This web-based application allows users to create various graphic designs, videos, and simple animations with a user-friendly interface (Mi et al., 2023). Canva provides thousands of templates and visual elements that can be modified according to learning needs, so teachers do not need to have professional design skills to produce attractive media. This advantage makes Canva an ideal tool for teachers at all levels of education, including early childhood education.

Canva also offers intuitive drag-and-drop features and a wide variety of colors, illustrations, and animations. Teachers can customize designs according to learning themes and student characteristics. In the context of early childhood

education, Canva can be used to create digital picture stories, interactive cards, videos introducing letters and numbers, or simple thematic animations that support the early childhood education curriculum. With the creativity of teachers, these media can be integrated into various play-based learning activities. In addition to the ease of media creation, Canva also supports collaboration between users. The sharing feature allows teachers to work together, exchange ideas, and adapt each other's work for learning purposes in their respective classrooms (Ali et al., 2024). This collaboration is essential for creating a productive learning community that is oriented towards continuous professional development. Teachers no longer work individually, but can support each other in creating technology-based learning innovations. The use of Canva in the context of early childhood education also supports contextual and thematic learning. Teachers can design media that is relevant to local themes, such as regional culture, the surrounding environment, or character values that they want to instill in children (Tobing et al., 2024). Thus, the media produced is not only visually appealing, but also has relevant educational and cultural significance. This is in line with the principles of early childhood education, which emphasize a balance between cognitive aspects and socio-cultural values.

Based on these various potentials, training in creating animated learning media using Canva is an appropriate intervention to improve the competence of early childhood teachers. This training can strengthen digital literacy, develop pedagogical creativity, and build a positive attitude towards the use of technology. In addition to producing innovative media products, the training also provides a space for teachers to reflect on and re-understand their role as agents of change in the digital age. Thus, this community service activity was carried out to provide training on creating simple animated learning media using Canva to teachers at the Malang State University Laboratory Kindergarten. This activity aims to improve teachers' knowledge and skills in utilizing technology to create fun, interactive, and meaningful learning experiences for early childhood. It is hoped that the results of this activity will not only strengthen teachers' professionalism but also support the improvement of early childhood education quality that is adaptive to the development of information technology in the digital era.

METHOD

This community service activity used a participatory training approach that emphasized the active involvement of participants in the entire learning process (Daruni & Amalina, 2021). This model was chosen because early childhood teachers need experiential learning to effectively master technological skills (Smaragdina et al., 2020). The participatory approach also enabled two-way interaction so that the training process was dialogical and encouraged the development of practical skills and confidence in the use of digital media.

Preparation Stage

This stage involved coordinating with the UM Laboratory Kindergarten to determine the schedule, facilities, and technical requirements for implementation. The community service team prepared the training curriculum, division of tasks,

and supporting equipment such as laptops, projectors, internet connections, and training modules.

Prior to the training, a preliminary survey (pre-assessment) was conducted to map participants' abilities in using digital technology. The survey was used as a basis for adjusting the depth of the material and identifying competency gaps (Zulhaenah & Nurdian, 2020). The results showed that participants had basic ICT skills, but were not yet familiar with Canva, especially its animation features. These findings formed the basis for determining the focus of the material.

The training material is compiled based on andragogy principles and job relevance. The main material covers: introduction to Canva, graphic design basics, and simple animation techniques for early childhood education.

Implementation Stage

The training was conducted face-to-face and consisted of three main sessions: a) Socialization Session, the participants comprehended the concept of the importance of animated media for early childhood education, the benefits of dynamic visualization, and the relevance of technology in increasing children's interest in learning. b) Practice Session (Hands-on Learning), participants practiced creating animated media using Canva, starting from familiarizing themselves with the application interface, selecting templates, arranging visual elements, to adding animations. Intensive guidance was provided, and the team observed the development of skills. c) Reflection and Discussion Session, participants presented their work, shared challenges, and provided feedback to one another. Reflection activities were used to internalize experiences into new knowledge (Liani, 2024) and strengthen collaboration among teachers.

Evaluation Stage

The evaluation was conducted to assess the effectiveness of the training and the improvement in participants' competencies through two instruments: a) Knowledge Test (Pre-test & Post-test), this was used to measure participants' increased understanding of digital media and the use of Canva. b) Product Assessment (Rubric), this was used to evaluate participants' work based on the suitability of early childhood education materials, design aesthetics, pedagogical appropriateness, and animation quality.

A post-training questionnaire was also used to determine participants' perceptions of the usefulness of the material, the clarity of delivery, and their level of confidence in using Canva.

Figure 1. Chart of Service Implementation Methods

RESULTS AND DISCUSSION

RESULT

Participant Profiles and Initial Needs

The partner in this community service activity is the Malang State University Laboratory Kindergarten and Preschool, located at Jl. Magelang No. 2, Sumbersari Village, Lowokwaru District, Malang City. This early childhood education institution is under the auspices of the Malang State University Foundation and is known as one of the leading early childhood education centers that offers Playgroup *(KB)* and Kindergarten *(TK)* programs. With its strategic location in the city center and only about 2 km from the main campus of Malang State University, the UM Laboratory Kindergarten and Preschool has great potential as a partner in the development of digital technology-based learning innovations.

This training activity was attended by kindergarten and preschool teachers with educational backgrounds mainly in early childhood education *(PAUD)* and some in Primary School Teacher Education *(PGSD)*. Based on the results of the initial survey, most participants had limited experience in utilizing technology as a learning medium. Although almost all teachers had used digital devices such as laptops or smartphones for administrative and communication purposes, the use of these devices in a pedagogical context was still minimal. This indicates a digital skills gap that needs to be bridged through structured training, particularly in the use of design and animation applications such as Canva.

This condition emphasizes the urgency of this community service activity, which is to improve the digital literacy of early childhood teachers and strengthen their ability to develop creative, interactive teaching media that are appropriate for the developmental characteristics of young children. Thus, this partnership is not only relevant but also strategic in supporting technology-based learning transformation in the UM Laboratory Kindergarten environment.

Table 1. Initial Survey Results of Community Service Activities

Measured Aspects	Category	Number of Teachers (n=20)	Percentage
Experience using animated media in learning	Ever used	3	15%
	Never used	17	85%
Level of understanding of Canva	Not familiar with Canva	12	60%
	Getting to know Canva in general (posters/invitations)	6	30%
	Familiar with Canva for visual design	2	10%
Basic knowledge of Canva's animation features	High	0	0%
	Medium	3	15%
	Low	17	85%
The need to improve creative teaching media skills	Necessary	18	90%
	Not necessary	2	10%

The results of the needs survey also show that most teachers feel the need to improve their skills in developing creative teaching media that are appropriate for early childhood characteristics. Approximately 85% of participants admitted that they had never used animated media in teaching and learning activities, and 70% of them were only familiar with Canva in general as an application for designing posters or invitations. Initial knowledge of Canva's animation features was low, so this training was considered relevant and targeted to improve teachers' competence in utilizing digital technology as a means of interactive learning in early childhood education.

Training Implementation

The training on creating simple animated learning media using Canva at the UM Laboratory Kindergarten was conducted face-to-face in the school meeting room. The activity began with an information session, where the community service team presented introductory material on the importance of using animated media in early childhood education. During this session, the benefits of using Canva as a tool to increase children's engagement and motivation to learn were also explained. Participants were shown examples of simple animated media that can be applied in the classroom, such as animations for introducing letters, numbers, and picture stories.

Figure 2. Implementation of Community Service Activities

After the introduction, the activity continued with a hands-on session. Participants were guided step by step, starting from logging into Canva, selecting templates, adding visual elements, setting animation movements, to saving and sharing their work. The community service team used a hands-on training method so that each participant could directly practice the animation creation process on their own devices. The training atmosphere was interactive, with participants actively trying out various features, asking questions, and discussing with one another. Some teachers appeared enthusiastic about experimenting with colors, animated characters, and backgrounds to tailor the material to their class needs.

The final session was a discussion and Q&A session that gave participants the opportunity to share their experiences during the training. Many participants asked questions about tricks to speed up the animation creation process, how to adjust media sizes for classroom presentations, and strategies for integrating animation into daily learning activities. The community service team provided feedback on the participants' work, offered suggestions for improvement, and shared tips on how to optimize Canva's features.

The training ended with a screening of the animated works created by the participants. This moment served as an opportunity for mutual appreciation and boosted the teachers' confidence in utilizing technology as a teaching medium. The participants' enthusiasm was evident in their desire to try creating other learning materials beyond those demonstrated during the training. The warm and collaborative atmosphere throughout the activity was one of the factors contributing to the success of this program.

Animation Media Product Results

The training results showed that all participants successfully created simple animated learning media using Canva in accordance with the learning themes in their respective classes. The products produced were diverse, ranging from animations introducing letters and numbers, interactive picture stories, to thematic materials such as introducing animals, transportation, and the surrounding environment. Each work displayed the teachers' creativity in combining text, images, icons, and animated elements that attracted children's attention.

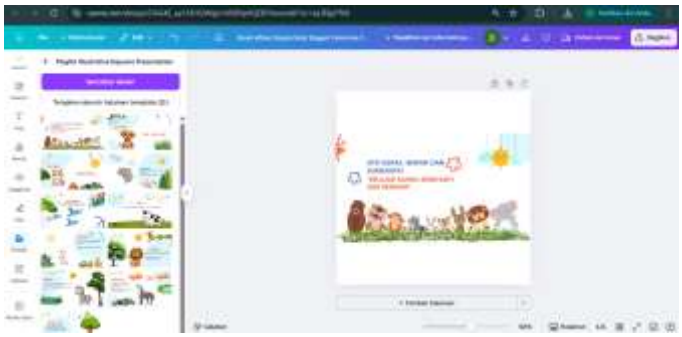

Figure 3. Training Material on the Design Process for Animated Learning Media in Canva

These works are not only visually striking, but also take into account the suitability of the content for early childhood cognitive development. Bright colors,

simple images, and short animation durations are characteristic features of each product. Some participants even added voice-over elements to reinforce the learning message, although this feature was not the main focus of the training. The potential for applying animated media in the classroom is quite large. Teachers can show it using a projector or television screen for group learning activities, or share it with parents to be used as learning material at home. The results of the work created in this training can also become a school's digital learning media bank that can be used repeatedly and modified as needed. With these new skills, participants feel more confident to develop animation media independently in the future. This is a positive first step in improving the quality of learning at the UM Laboratory Kindergarten, while fostering a culture of innovation in the use of technology in the school environment.

Evaluation of Community Service Programs

A total of 20 early childhood education teachers participated in this training activity. Based on the initial identification results, their level of experience in using the Canva application varied considerably. Most of the participants, namely 12 people (60%), had never used Canva before. Six people (30%) stated that they had tried using Canva but were still limited to basic functions such as making posters or simple invitations. Meanwhile, only 2 people (10%) claimed to be quite familiar with using Canva, especially in the context of visual design. This data shows that the majority of early childhood education teachers still have limitations in mastering digital design applications, so this training is a strategic step to improve their digital literacy and ability to develop animation-based learning media.

Table. 2 Summary of Quantitative Evaluation Process

Assessment Aspect	Indicator	Average Score	Category
Materials and Implementation	Relevance of materials to participants' needs	4.85	Very Good
	Clarity of the speakers' delivery	4.90	Very Good
	Training methods (socialization, practice, and discussion)	4.75	Very Good
	Quality of facilities and infrastructure	4.60	Good
	Training time and activity management	4.70	Very Good
Competency Improvement	Understanding the use of Canva	4.85	Very Good
	Ability to create independent animated media	4.70	Very Good
	Enhancing teacher activity and innovation	4.80	Very Good
	Having confidence in technology	4.90	Very Good
Satisfaction and Impact	Satisfaction with the training implementation	4.95	Very Good
	Direct benefits to classroom learning	4.80	Very Good
	Motivation to develop advanced digital media	4.90	Very Good

Based on the evaluation results, this training showed a high level of success with an average score of 4.82 out of 5. Most participants considered this activity to be very useful, applicable, and inspiring. The training not only improved teachers' technical skills in using Canva, but also encouraged creativity and pedagogical innovation in early childhood education. The active involvement of participants during the practice, coupled with a collaborative and enjoyable training atmosphere, contributed greatly to the effectiveness of the activity. Participants showed a positive change in attitude towards technology and felt more confident in creating animated learning media. These results reinforce that interactive hands-on training methods are effective in improving the digital literacy of early childhood teachers.

DISCUSSION

The results of the training on creating animated learning media using Canva at the UM Laboratory Kindergarten showed a significant increase in teacher competence in terms of knowledge, skills, and attitudes toward the use of technology. These findings are in line with the opinion (Shofia & Dadan, 2021) that stated that technology-based learning media can enrich students' learning experiences, increase motivation, and facilitate conceptual understanding. In the context of early childhood education, the use of animated media can attract children's attention, increase focus, and help them understand material visually and contextually (Tresnadi & Ratuannisa, 2023).

This training proves that technical constraints such as limited devices and internet networks can be overcome with collaborative methods and adaptive strategies, such as sharing devices and utilizing offline features. This is in line with the findings of Sudjana & Rivai (2010) that the successful use of learning media does not only depend on the availability of technology, but also on the creativity and adaptability of users in overcoming limitations. In addition to improving technical skills, this training also fostered a positive attitude toward learning innovation. Teachers who were initially unfamiliar with Canva became more confident in developing animation-based learning media. According to the Technology Acceptance Model theory (Zulhaenah & Nurdian, 2020), technology acceptance is influenced by perceptions of ease of use and perceived benefits. In this context, participants felt that Canva was easy to learn and had direct benefits for early childhood learning.

The positive response from participants also indicates that hands-on and interactive training methods are effective in increasing teacher engagement. This approach supports the findings (Puspasari et al., 2021), that teachers need to experience the use of technology firsthand in order to apply it optimally in the classroom. This is increasingly relevant in the digital age, where technological literacy skills are an important part of teacher professionalism (Elysa, 2025). Overall, the training results show that animation-based learning innovation can be a strategic solution to improve the quality of learning in early childhood education. The success of this program reinforces the argument that developing teacher competencies through structured, applicable, and relevant technology training can have a direct impact on the learning process. Going forward, the sustainability of

the program through the development of advanced materials and the integration of practice-based evaluation in the classroom will be an important step in ensuring that this innovation is fully implemented in an optimal manner.

CONCLUSION

This community service activity successfully addressed the issue of low competency among kindergarten teachers in developing technology-based animated learning media. Through training in creating animated media using Canva, kindergarten teachers at the Malang State University Laboratory experienced significant improvements in their knowledge, technical skills, and confidence in utilizing technology as a learning tool. All participants were able to produce simple animated learning media that was appropriate for the developmental characteristics of early childhood and suitable for use in the classroom learning process. These findings confirm that practice-based training using user-friendly digital platforms is effective in strengthening the pedagogical and digital literacy competencies of kindergarten teachers.

However, the implementation of this activity still faces several obstacles. Differences in the participants' initial levels of digital literacy led to variations in the speed at which they were able to follow the practical sessions. In addition, the limited training time restricted the exploration of Canva's features in greater depth, particularly for the development of advanced animations. Technical obstacles such as internet connection quality and device limitations for some participants also affected the smooth running of the training process, although these could be overcome through intensive mentoring and cooperation between participants.

Based on these findings and constraints, further research and community service activities are recommended to extend the duration of training and provide ongoing mentoring sessions to ensure the implementation of animated media in the classroom. Further research could also examine the impact of using Canva-based animated media on early childhood learning outcomes, motivation, and engagement empirically. In addition, exploring the development of other digital media such as interactive videos, educational games, or integration with online learning platforms has the potential to enrich technology-based learning innovation in early childhood education.

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