

Research Article

Training on Using Canva and Google Classroom for Prospective Teachers in Implementing Interactive Learning at STAIN Mandailing Natal

Amru Abdul Wadud^{1*}, Owi Ali Nurdin Malayu², Rony Hamdani Siregar³, Zulhimma⁴

¹⁻⁴ Universitas Islam Negeri Syekh Ali Hasan Ahmad Ad-Dary Padangsidempuan, Sumatera Utara, Indonesia

* Corresponding Author : muhammadamrukita@gmail.com

Abstract: The development of digital technology has brought significant changes to learning practices at various levels of education. This situation requires prospective teachers to have technology-based pedagogical competencies to be able to create innovative and interactive learning. Canva and Google Classroom are digital platforms that can be utilized as learning support media because they are easily accessible and have features relevant to educational needs. This article aims to describe the implementation and results of training on the use of Canva and Google Classroom for prospective teachers at STAIN Mandailing Natal. This activity uses a participatory training approach by actively involving prospective teachers. The training was carried out through interactive lectures, demonstrations, hands-on practice, and ongoing mentoring. The material covered technology-based interactive learning, the use of Canva as an educational visual medium, and the use of Google Classroom for digital classroom management. Participants were guided to produce digital teaching materials and virtual classes independently, accompanied by mentoring in overcoming technical and pedagogical obstacles. Evaluation was carried out through active observation, assessment of practical results, and reflection on the training experience. The results of the activity showed an increase in participants' understanding and skills in designing visual learning media and managing digital classrooms effectively. This training made a positive contribution in developing prospective teachers who are adaptive to technological developments and able to implement interactive learning according to the demands of 21st-century education.

Keywords: Canva; Digital Literacy; Google Classroom; Interactive Learning; Prospective Teachers

1. Introduction

The era of rapid transformation places education in a position inseparable from the influence of the digital revolution, which reaches various aspects of life. Technological developments over the past few decades have fundamentally changed the patterns of human interaction with information, culture, and learning mechanisms (Hasnida & Adrian, 2024). Digital transformation in the world of education has become an inseparable demand from the dynamics of development. 21st-century education emphasizes the importance of mastering critical thinking skills, creativity, communication, and collaboration, integrated with the use of information technology in the learning process (Mantau & Talango, 2023). Therefore, teachers are required not only to master the teaching material but also to have the ability to manage digital-based learning.

This issue, which is in line with the mandate of the 1945 Constitution, affirms that national education is a means of enlightening the nation's life. This goal is emphasized in Law Number 20 of 2003 concerning the National Education System, Article 3, which states that education functions to develop the potential of students through the formation of character and a dignified national civilization so that they become faithful, noble, healthy, capable,

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knowledgeable, creative, independent, and responsible citizens of a democratic nation (Sofiani et al., 2025). Providing equitable access to education plays a crucial role in reducing social disparities by positioning teachers as the primary drivers in expanding access to learning through the use of technology, enabling education to reach more students effectively. Improving teachers' digital competencies not only strengthens students' skills and knowledge but also supports social stability, economic growth, and sustainable development in the digital era.

Digital transformation in higher education institutions in developed countries tends to proceed more smoothly than in developing countries. The availability of adequate digital infrastructure plays a significant role in supporting this process. Adaptive education policies and strong higher education regulations accelerate the implementation of digital transformation in academic environments in developed countries. Higher education institutions, as institutions producing educators, play a strategic role in equipping prospective teachers with technology-based professional and pedagogical competencies (Kambau, 2024). Prospective teachers need to be trained to be able to integrate technology appropriately in the learning process, so as to create an active and meaningful learning atmosphere (Mulyasa, 2020). This is becoming increasingly relevant for religious educational institutions such as STAIN Mandailing Natal in facing the challenges of modern education. One effort is to strengthen the digital competence of prospective teachers by utilizing easy-to-use and flexible learning applications.

Prospective teachers, as the next generation of educators, need to be equipped with adequate digital literacy skills. Their readiness to integrate learning technology will determine the success of the teaching and learning process in schools. Lack of technological mastery can potentially lead to monotonous, less participatory learning, and learning that is not aligned with students' needs (Kuncoro et al., 2022). Efforts to improve the digital competence of prospective teachers are an urgent need . The digital era places teachers as key actors in managing technology-based learning. Teachers' pedagogical competence today encompasses not only the ability to master material but also the ability to utilize learning technology innovatively. Teachers are required to design engaging, interactive, and relevant learning experiences that reflect the characteristics of the digital generation. This situation emphasizes the importance of mastering digital learning media from the initial stage of teacher education.

Canva is a digital design platform that allows users to create various visual learning media such as presentations, infographics, and creative teaching materials practically (Marfuah et al., 2025). Attractive visual media has been proven to increase students' attention and learning motivation. Strengthening the digital competencies of prospective teachers is a crucial aspect in addressing the challenges of education in the era of technological transformation. These competencies include the ability to utilize digital devices, manage technology-based learning resources, and effectively implement innovative learning media. Mastery of digital literacy enables prospective teachers to design interactive learning processes that are relevant to the characteristics of today's students. This readiness plays a role in improving the quality of learning while supporting the creation of an educational environment that is responsive to current developments (Barnansyah et al., 2023).

In addition, Google Classroom functions as a learning management system that makes it easier for teachers to manage virtual classes, distribute materials, give assignments, and conduct online learning evaluations (Listiyani et al., 2021). This platform supports more structured and efficient learning interactions and communications. Although both platforms are relatively easy to use, prospective teachers are still found to be less than optimal in utilizing them pedagogically. Technology use is often limited to technical aspects without an understanding of appropriate learning strategies (Apriana & Rigianti, 2024). Therefore, targeted training is needed to enable prospective teachers to integrate Canva and Google Classroom into interactive learning.

Based on this background, this article is written to provide a comprehensive overview of the implementation of training activities designed for prospective teachers at STAIN Mandailing Natal. The description focuses on the planning process, implementation, and training strategies applied in integrating technology into learning. The discussion also emphasizes changes in participants' abilities in utilizing digital media and devices as effective learning tools. The impact of the training is analyzed through the improvement of prospective teachers' pedagogical and digital competencies in designing, implementing, and evaluating technology-based learning. This description is expected to demonstrate the training's contribution to prospective teachers' readiness to face the demands of education in the digital era.

2. Implementation Method

This activity uses a participatory training approach, involving prospective teachers as active participants in each stage of the activity. The training is conducted through several methods, including interactive lectures, demonstrations, hands-on practice, and intensive mentoring. (Sudjana, 2018). This approach was chosen so that participants not only understand the concept, but are also able to apply it in real life. The training materials included an introduction to the concept of technology-based interactive learning, the use of Canva to create educational visual media, and the use of Google Classroom as a digital classroom management tool. Participants were guided to independently create learning products in the form of digital teaching materials and virtual classrooms (Uno, 2019). Throughout the activity, participants received support in overcoming technical and pedagogical challenges. Evaluation was conducted through observation of participant activity, assessment of practical results, and reflection on their understanding and experience during the training (Rusman, 2019).

3. Results and Discussion

Utilization of technology for learning understanding

The training results showed a significant increase in participants' understanding of the urgency of utilizing technology in the learning process. Prospective teachers no longer viewed technology merely as a supporting tool, but rather as an integral part of learning planning and implementation. This understanding was reflected in participants' ability to link learning objectives with the appropriate use of digital media. Awareness of the importance of technology-based learning innovation became the initial capital in creating a learning process that was relevant to current developments. This change also marked the increasing readiness of prospective teachers to face the dynamics of digital education. The positive impact of the

training was evident in participants' increased confidence in integrating technology into learning activities (Arsyad, 2020).

Participants' ability to utilize the Canva application showed significant progress. Prospective teachers were able to design visual learning media that were more engaging, communicative, and suited to student characteristics. The resulting media designs demonstrated color selection, layout, and illustrations that supported clear material delivery. Participants' creativity developed along with their understanding of visual learning design principles. The media they created served not only as a learning aid but also as a means to enhance student learning interest. This ability serves as an indicator of prospective teachers' increasing professional competence in effectively presenting learning materials.

The use of Google Classroom in training also yielded positive and measurable results. Participants were able to independently build digital classes with a systematic structure. Student management, material distribution, assignments, and feedback were all integrated through the platform. This capability demonstrates that prospective teachers have a comprehensive understanding of online learning mechanisms. The use of Google Classroom aligns with research findings (Arifina & Merdekawati, (2020) Their presence helps participants manage their learning more efficiently and in an organized manner. This experience provides essential skills for facing the demands of technology-based learning in the school environment.

Mastery of Google Classroom also fosters more collaborative learning interactions. Training participants are able to utilize discussion and assignment features to encourage active student engagement. The learning process is no longer one-way, but rather opens up space for dialogue and collaboration. This interaction pattern supports the creation of a participatory and dynamic learning environment. Prospective teachers' ability to manage digital classrooms demonstrates their readiness to implement technology-based learning sustainably. This experience enriches participants' pedagogical insights into managing modern learning.

The Impact of Training on Changing The Learning Paradigm of Prospective Teachers and its Challenges

The training also impacted the learning paradigm of prospective teachers. The previously teacher-centered learning orientation shifted toward an approach that places students as the primary subject. Teachers no longer served as the sole source of information, but rather as facilitators guiding the learning process. This shift in mindset encouraged prospective teachers to pay greater attention to the needs, interests, and characteristics of their students. This approach aligns with the demands of 21st-century learning, which emphasizes student independence and creativity. This transformation in the teacher's role is a crucial factor in improving the quality of learning.

This changing role also has implications for the learning strategies implemented by prospective teachers. Lesson planning is beginning to be geared toward activities that encourage active student participation. Digital media is being utilized to facilitate exploration, discussion, and problem-solving. Learning is no longer limited to delivering material but focuses on the process of developing critical thinking skills. This approach strengthens the teacher's position as a facilitator in the learning process. This ability is a crucial foundation for building meaningful and contextual learning.

From a pedagogical perspective, the training significantly contributes to strengthening the professional competencies of prospective teachers. Technology integration through Canva and Google Classroom enables more varied and innovative learning. Active learning can be realized through the use of visual media and structured online activities. Collaboration between students can be facilitated through digital discussion and group work features. A project-based approach is also easier to implement with technological support. These competencies align with the demands of teacher professionalism standards in the digital age.

Strengthening these competencies also increases prospective teachers' readiness to design adaptive learning. Lesson planning becomes more flexible and responsive to student needs. Technology is utilized to adapt learning methods and media to the learning context. This capability enables prospective teachers to deliver relevant and meaningful learning. The training experience provides a concrete illustration of the implementation of technology-based learning. This provision is crucial for prospective teachers before entering the world of formal education.

However, the training still faced several challenges. Limited internet access prevented some participants from fully participating. Differences in digital literacy levels also affected how quickly participants understood the material. This situation necessitated a more intensive mentoring strategy. Adjustments were necessary to ensure that all participants benefited equally. These challenges served as evaluation material for improving future training implementation (Maimun et al., 2025).

The sustainability of training programs is a crucial factor in maintaining and enhancing acquired competencies. Continued mentoring is necessary to ensure the continued development of prospective teachers' digital skills. Ongoing training programs can help participants overcome technical and pedagogical challenges. Gradual competency development will support the consistent implementation of technology-based learning. Commitment from educational institutions is crucial in supporting the professional development of prospective teachers. These efforts will positively impact the overall quality of education.

This means that, based on the results and discussion above, it can be concluded that this training significantly contributed to the readiness of prospective teachers at STAIN Mandailing Natal to face the challenges of digital learning. Improvements in digital, pedagogical, and professional competencies were clearly evident through the training results. Prospective teachers have stronger provisions to integrate technology in learning. This readiness is an important capital in building education that is relevant to current developments. This training shows that strengthening the digital competency of educators is a strategic step in improving the quality of education. Continuous efforts are needed to ensure that the digital education transformation runs optimally.

4. Conclusion

The implementation of training on the use of Canva and Google Classroom for prospective teachers at STAIN Mandailing Natal showed positive results in improving participants' abilities in designing learning media and systematically managing digital classes. This activity provided space for prospective teachers to develop creativity in developing interesting and easy-to-understand learning materials. Mastery of the technology skills

acquired also strengthened participants' pedagogical understanding to align with the needs of 21st-century learning. The training also encouraged prospective teachers to be more adaptive to changes and innovations in the world of education. Sustainability of the training program is crucial to ensure the continuous improvement of acquired competencies. The readiness of prospective teachers as professional educators who are innovative and responsive to technological developments can be achieved through continuous training support.

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