Proceedings of the 69th TEFLIN International Conference in conjunction with the 3rd English Education International Conference (EEIC)
September 22-23, 2023, Banda Aceh, Indonesia
ISSN: 2527-8037

Pre-Service Teachers' Utilization of Digital Learning Tools in Microteaching Class

Irma Soraya* and **Fahmy Imaniar**

English Language Education Department, Faculty of Tarbiyah dan Teacher Training, Universitas Islam Negeri Sunan Ampel, Surabaya, 60237, Indonesia

**Corresponding author: irmasoraya@uinsby.ac.id*

Abstract
Microteaching, considered a well-established practice in teacher training or teacher education, deals with experience from learning to teaching. Pre-service teachers today, through microteaching classes, are expected to be able to cope with digital learning tools when they are practicing. Therefore, this study aims to explore pre-service teachers' use of digital learning tools in microteaching classes. Through a qualitative approach to the case study, the result reveals 12 kinds of digital learning tools used by pre-service teachers in their practice in microteaching classes. Not only that but how they utilize those digital learning tools during their teaching practice is elicited in this study. Some are used in the material delivery, stimulation, assignment, and even assessment. An essential finding shows that pre-service teachers utilize more than two digital learning tools in a single practice. This study emphasizes that microteaching classes cannot be neglected as a way to develop pre-service teachers' pedagogical competence through practices with relevant context and integration of the newest technological or digital tools that support the learning process.

Keywords: *Digital learning tools, microteaching, pre-service teachers.*

INTRODUCTION

In the contemporary digital age, integrating digital learning tools has emerged as a critical aspect of modern education, encompassing various disciplines, including English language teaching and learning. With technological advancements, the educational landscape has witnessed a profound transformation, revolutionizing the traditional classroom dynamics. Digital learning tools, from interactive multimedia applications to virtual classrooms, have opened new avenues for educators to engage students actively and creatively. As Ahmad (2012) asserted, these digital tools facilitate personalized learning experiences, catering to the diverse needs and learning preferences of students. Instructors in the English language domain have increasingly embraced these technologies, leveraging language learning apps, online language labs, and interactive e-

books to enhance language proficiency and foster communicative competence among learners. Furthermore, digital learning tools empower educators to transcend geographical boundaries, enabling them to connect with a global community of language learners fostering cross-cultural communication and understanding.

The ever-growing significance of digital learning tools in education calls for a fundamental shift in pedagogical practices. As emphasized by Bui (2022), traditional instructional methods are gradually being complemented and, in some cases, supplanted by digital resources that cater to the digital-native generation of learners. English language educators in pre-service training and established teaching positions are urged to embrace these tools to bridge the gap between classroom activities and learners' real-world experiences. Through technology-enhanced language learning, students are provided with authentic language contexts, interactive exercises, and immediate feedback, fostering language acquisition in a more engaging and immersive manner. In this context, teacher education programs play a vital role in preparing educators to harness the full potential of digital learning tools. Integrating technology-focused coursework and practical training allows pre-service teachers to develop digital literacy, cultivate critical thinking skills, and adapt pedagogical strategies that align with the dynamic educational landscape of the digital era.

Pre-service teachers, as the aspiring educators of the future, play a pivotal role in shaping the quality of education in the digital age. With the rapid proliferation of digital learning tools, it becomes imperative for future educators to be equipped with the necessary skills and knowledge to integrate these tools into their teaching practices seamlessly. As technology continues to evolve and permeate various aspects of society, educational institutions must prepare pre-service teachers to harness the potential of digital tools for enhancing teaching and learning experiences. Research by Tondeur et al. (2012) highlights the significance of technology integration training during pre-service education, emphasizing that exposure to diverse digital tools empowers teachers to design engaging and inclusive learning environments. By fostering digital fluency among pre-service teachers, educational institutions can facilitate the development of innovative pedagogical strategies that cater to the diverse needs of learners in the modern classroom.

To ensure that pre-service teachers are well-prepared to leverage digital learning tools, teacher education programs effectively must emphasize practical and theoretical training in educational technology. By incorporating technology-focused coursework, hands-on workshops, and authentic teaching experiences, teacher education institutions can empower pre-service teachers to embrace digital tools as powerful facilitators of learning. As Alelaimat et al. (2020) emphasized, pre-service teachers need opportunities to experiment with diverse digital learning tools in a controlled environment, such as microteaching classes, to build their confidence in utilizing these tools during their future teaching careers. Furthermore, exposure to research-based best practices for technology integration, alongside pedagogical training, will enable pre-service teachers to make informed decisions about the most appropriate and effective digital tools for various instructional contexts. Equipping pre-service teachers with these essential skills will not only enhance their individual teaching competencies but also contribute to the overall advancement of educational practices in the digital era.

Based on the study conducted by Fazilla et al. (2022), twelve kinds of digital learning tools were identified: interactive whiteboards, online quizzes, educational videos, virtual

reality simulations, gamified platforms, mobile applications, social media platforms, collaborative software, e-books/e-readers, presentation software (e.g., PowerPoint), blogs/websites/portfolios as documentation tool(s), and online discussion forums. Microteaching classes play a crucial role in developing pedagogical competence among pre-service teachers. These classes allow them to practice teaching in a controlled environment before entering the classroom as professional educators (Fazilla et al., 2022). By integrating various teaching strategies, including the utilization of digital learning tools, pre-service teachers gain hands-on experience and develop their instructional skills. Therefore, taking a different context and perspective, this study aims to explore the utilization of digital learning tools used by pre-service teachers in microteaching classes since there have been several studies about the use of digital tools in the classroom, but none of the subject of which, are pre-service teachers in microteaching class.

METHODS

This study adopted a qualitative research approach using a case study design (Yin, 2014). The case study method allows for an in-depth exploration of a specific phenomenon within its real-life context, providing valuable insights into the utilization of digital learning tools by pre-service teachers during their microteaching sessions. The focus of this study is to gain a deeper understanding of the factors influencing the adoption and integration of digital tools and their impact on the pedagogical practices of pre-service teachers.

The data were collected through semi-structured interviews and observations. A purposive sample of pre-service teachers enrolled in a teacher education program at a reputable institution was selected as the participants for the case study. Semi-structured interviews were conducted with the pre-service teachers to explore their experiences, perspectives, and attitudes toward using digital learning tools in their microteaching sessions. The interviews were designed to elicit detailed responses, allowing the researchers to uncover the participants' motivations for selecting specific digital tools, the challenges encountered, and the perceived impact on student engagement and learning outcomes.

In addition to the interviews, classroom observations were conducted during the pre-service teachers' microteaching sessions. These observations provided a firsthand view of how the pre-service teachers integrated digital learning tools into their teaching practices. The observations focused on the types of digital tools used, the strategies employed to facilitate their integration, and the overall effectiveness of the tools in enhancing the teaching and learning experiences. The combination of interviews and observations enabled the researchers to gather rich and diverse data, contributing to a comprehensive understanding of the phenomena under investigation.

The collected data were analyzed using thematic analysis, which involved the identification and exploration of patterns, themes, and relationships within the data (Braun & Clarke, 2006). The researchers employed a systematic data coding, categorization, and interpretation process to derive meaningful insights from the qualitative information. Through this rigorous analysis, the study aimed to identify common themes and significant patterns related to pre-service teachers' utilization of digital learning tools during microteaching sessions. The findings of the thematic analysis will serve as the basis for the discussion and interpretation of the results, leading to a

nuanced understanding of the implications of digital tool adoption on pre-service teachers' pedagogical practices.

FINDINGS

The study adopted a qualitative case study approach to explore the utilization of digital learning tools by pre-service teachers in their microteaching classes. The findings revealed a diverse range of digital tools employed by the participants, encompassing 12 distinct kinds of digital learning tools. These tools included Canva, Slideshare, Kahoot, Quizziz, Google Docs (Gdoc), Mentimeter, Wordwall, PowerPoint, Jamboard, Live Worksheet, Spinner, and YouTube. The presence of such a wide array of digital tools showcases the adaptability and resourcefulness of pre-service teachers in incorporating technology into their teaching practices.

The study delved further into the ways in which pre-service teachers integrated these digital learning tools during their microteaching sessions. The findings indicated that the digital tools were utilized across multiple aspects of the teaching process, including material delivery, stimulation, assignment, and assessment. Pre-service teachers employed these tools creatively to enhance engagement and interaction with their students. For instance, tools like Canva and Slideshare were utilized for visually appealing material delivery, while Kahoot and Quizziz were employed to gamify quizzes and assessments. The incorporation of digital learning tools into various stages of the teaching process highlights their versatility in addressing different pedagogical needs.

One significant finding that emerged from the study was the prevalence of utilizing multiple digital learning tools within a single microteaching practice. The majority of pre-service teachers employed more than two digital tools during their microteaching sessions, showcasing their inclination towards a blended and diversified technological approach. This tendency towards using a combination of tools suggests that pre-service teachers recognize the value of tailoring their instruction to accommodate different learning styles and preferences, fostering an inclusive and dynamic learning environment.

Furthermore, the study shed light on the functionalities and benefits of specific digital learning tools in the context of pre-service teachers' microteaching sessions. For instance, tools like Jamboard and Live Worksheet were favored for facilitating real-time student interaction and collaboration, while Spinner and YouTube were employed to inject spontaneity and multimedia elements into the classroom. The pre-service teachers' adaptability in utilizing these tools for various purposes underscored their capacity to make informed decisions about the most suitable tools for specific teaching objectives.

Overall, the study's findings underscore the significance of digital learning tools in pre-service teachers' microteaching classes. The utilization of a wide array of digital tools, ranging from interactive platforms like Kahoot and Quizziz to multimedia tools like PowerPoint and YouTube, showcases the dynamic and resourceful nature of the pre-service teachers in embracing technology for pedagogical enhancement. The diverse integration of these tools into different aspects of the teaching process highlights their potential to cater to the multifaceted needs of learners. Additionally, the prevalence of utilizing multiple digital learning tools within a single practice demonstrates the pre-service teachers' keenness to explore innovative and inclusive instructional approaches. These findings contribute to a nuanced understanding of the integration of digital learning tools in the microteaching context and can inform teacher education programs

on the significance of preparing future educators to leverage technology in their teaching practices effectively.

DISCUSSIONS

The findings of this study provide valuable insights into the utilization of digital learning tools by pre-service teachers during their microteaching classes. The diverse range of 12 digital tools employed by the participants demonstrates the adaptability and resourcefulness of future educators in embracing technology for pedagogical enhancement. This aligns with previous research by Ahmad (2012), who emphasized that pre-service teachers need to be proficient in utilizing digital tools to create engaging and inclusive learning environments. The incorporation of various digital learning tools, such as Canva, Slideshare, and Kahoot, showcases the participants' efforts to cater to different learning styles and preferences, fostering a dynamic and interactive classroom atmosphere. As educators increasingly embrace technology to enrich teaching practices, these findings emphasize the significance of preparing pre-service teachers with digital literacy skills and the knowledge to select appropriate tools for diverse instructional contexts.

The study also revealed the versatility of digital learning tools, with pre-service teachers utilizing them across various stages of the teaching process. The integration of these tools for material delivery, stimulation, assignment, and assessment reflects the potential for technology to enhance different aspects of the instructional experience. These findings resonate with the work of Alelaimat et al. (2020), who highlighted the importance of technology integration training for pre-service teachers to incorporate digital tools into their pedagogical practices effectively. By engaging in a blended approach that leverages multiple digital tools, pre-service teachers can create engaging and interactive lessons that cater to the individual needs of learners. This aligns with the Universal Design for Learning (UDL) principles, which emphasize the importance of offering multiple means of representation, engagement, and expression to support diverse learners.

Moreover, the prevalence of using more than two digital learning tools within a single microteaching practice underscores the participants' inclination towards a diversified technological approach. This finding aligns with the research by Tondeur et al. (2012), who emphasized that pre-service teachers' exposure to diverse digital tools during their training can empower them to design innovative and dynamic lessons. The incorporation of a combination of digital tools allows pre-service teachers to create multifaceted and comprehensive learning experiences that foster student engagement and active participation. However, it is essential to provide pre-service teachers with adequate training and support to navigate the challenges associated with integrating multiple tools seamlessly. By addressing potential obstacles, teacher education programs can empower future educators to harness the full potential of technology in their microteaching classes and future teaching careers.

CONCLUSION AND SUGGESTION

In conclusion, pre-service teachers' utilization of digital learning tools in microteaching classes is essential for enhancing teaching and learning experiences. Digital tools offer opportunities for material delivery, stimulation of student engagement, assignment creation and submission processes, and assessment methods. Microteaching

classes serve as a vital platform for pre-service teachers to develop their pedagogical competence by practicing with relevant context and integrating various teaching strategies along with digital tool utilization. As technology continues to advance rapidly, it becomes increasingly important to prepare future educators with the necessary competencies to integrate digital learning tools into their classrooms effectively.

The findings of this study shed light on the significance of digital learning tools in pre-service teachers' microteaching classes, revealing their adaptability and resourcefulness in embracing technology for pedagogical enhancement. The diverse range of 12 digital tools utilized by the pre-service teachers showcases their willingness to explore innovative instructional approaches that cater to different learning styles and preferences. This highlights the importance of incorporating digital literacy training into teacher education programs to equip future educators with the necessary skills to effectively integrate technology into their teaching practices. To further advance the integration of digital learning tools, teacher education institutions should consider integrating technology in classes or any kind of trainings, including teacher trainings.

REFERENCES

Ahmad, J. (2012). English Language Teaching (ELT) and Integration of Media Technology. *Procedia - Social and Behavioral Sciences, 47,* 924-929. https://doi.org/10.1016/j.sbspro.2012.06.758

Alelaimat, A. M., Ihmeideh, F. M. & Alkhawaldeh, M. F. (2020). Preparing preservice teachers for technology and digital media integration: Implications for early childhood teacher education programs. *IJEC: International Journal of Early Childhood, 52,* 299-317. https://doi.org/10.1007/s13158-020-00276-2

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Bui, T. H. (2022). English teachers' integration of digital technologies in the classroom. *International Journal of Educational Research Open, 3*, 100204. https://doi.org/10.1016/j.ijedro.2022.100204

Fazilla, S., Yus, A., & Muthmainnah, M. (2022). Digital literacy and TPACK's impact on pre-service elementary teachers' ability to develop science learning tools. *Profesi Pendidikan Dasar, 9*(1), 71–80. https://doi.org/10.23917/ppd.v9i1.17493

Tondeur, J., van Braak, J., Sang, G., Voogt, J., Fisser, P., & Ottenbreit-Leftwich, A. (2012). Preparing pre-service teachers to integrate technology in education: A synthesis of qualitative evidence. *Computers & Education, 59*(1), 134-144. https://doi.org/10.1016/j.compedu.2011.10.009

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Sage Publications.