

Chapter 6

AI-Powered Lesson Planning: Insights From Future EFL Teachers

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ABSTRACT

This chapter explores the integration of artificial intelligence (AI) into language education, focusing on the perspectives of pre-service English as a foreign language (EFL) teachers. Employing a mixed-methods approach, the study investigates the effectiveness of AI-powered lesson plans, specifically designed for teaching writing to 5th-grade students. Through a comprehensive evaluation rubric and qualitative analysis, the research identifies strengths, areas for improvement, and suggested changes in AI-generated lesson plans. Findings highlight the tool's success in engagement, appropriateness, and overall structure, while indicating challenges in differentiation and assessment. The chapter concludes with implications for teacher training in AI literacy, emphasizing the need for educators equipped to harness the potential of AI in diverse language teaching settings.

INTRODUCTION

In the dynamic domain of technology, it is rare for a groundbreaking advancement to get noticed and exert impact as fast as ChatGPT has. Recently, this AI-powered language model has rapidly received global appeal, captivating both experts and casual internet users with its remarkable powers. Generative AI has been applied in various ways to support language education. It has the potential to revolutionize language education by providing innovative tools and approaches to enhance language learning and teaching. These tools can provide more interactive and personalized language learning experiences for students (Lee et al., 2022); immediate feedback on learners' language (Fu et al., 2020); and authentic

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language practice (Bibauw et al., 2019). While AI has been increasingly incorporated into K–12 education, little research has been conducted on the trust and attitudes of teachers towards the use and adoption of AI-powered educational technology (Nazaretsky et al., 2022).

Teachers' perspectives and conceptions of employing AI in schools are also crucial to consider when understanding how generative AI influences pedagogy and learning. Analyzing and comprehending the adoption of AI is of great significance but challenging (Pedró et al., 2019). As with most new technology, teachers need to be equipped with AI literacy such as providing hands-on activities (Lee & Perret, 2022) to provide an understanding of the benefits and challenges of using AI in language teaching and learning. Thus, integration of AI to teacher education is of great importance. The pre-service teachers should be trained how and when to use AI, and how to improve their teaching performance with AI-powered applications.

Lesson planning is one of the crucial steps where teachers will decide on the technology integration to enhance the overall quality of teaching (Kehoe, 2023). Lesson planning is a roadmap for teachers to address the diverse needs and preferences of learners, promoting inclusive and equitable education. Additionally, for pre-service teachers, lesson planning is a critical component in the development of pedagogical competence, as it enables them to reflect on, modify and implement lesson plans, assess student learning, and create effective learning media and select and apply effective learning techniques and tools. (König, Bremerich-Vos, Buchholtz, Fladung, & Glutsch, 2019). AI integration starts at lesson planning where teachers decide on where, how, and why to use AI (Kehoe, 2023).

Additionally, AI could help teachers to design effective lessons at the first step of lesson preparation. It has the capacity to greatly revolutionize the process of lesson planning in education. First, AI systems can scan massive volumes of educational data to detect student learning patterns, strengths, and weaknesses, helping teachers create more personalized and engaging classes. AI can anticipate student concerns and help teachers address them by using predictive analytics (Yildirim, Arslan, Yildirim, & Bisen, 2021). AI-powered systems may also select and recommend instructional articles, videos, and interactive materials, saving teachers' time. AI-driven evaluation technologies can also provide real-time feedback on student achievement, allowing teachers tailor lessons to specific learning needs. In the end, AI can help teachers improve lesson planning, engage students, and create more inclusive learning environments (Kehoe, 2023). However, the studies on what teachers think about AI-powered lesson planning are scarce in literature. In fact, it is crucial to investigate teachers', especially pre-service teachers' views on the benefits or hinders of AI in lesson planning process as they are the ones who will or will not use AI in lesson planning and their perspectives could reveal what they need to use AI in the process and how AI could be use more effectively in learning and teaching process.

Addressing this need, this chapter aims to show how future EFL teachers perceive the integration of AI technologies like ChatGPT in their lesson planning process. Pre-service teachers' views on AI-powered lesson planning can help create targeted professional development programmes that give pre-service teachers the skills and expertise to use these technologies effectively, to explore the problems and ethical dilemmas of AI integration in education, preparing future educators to handle complex technology issues in the classroom. AI-powered lesson planning from the perspective of pre-service teachers can help stakeholders improve digital teacher training by being more informed, flexible, and responsive. Thus, it can be claimed that exploring the evaluations and beliefs of future teachers using AI for their teaching preparation, could shed light on the effectiveness and practicality of in such tools in educational settings. Additionally, this research can inform the development of training programs that specifically address the needs and concerns of EFL teachers incorporating AI into their teaching practices.

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