

CHAPTER 1

INTRODUCTION

In this chapter revealed about the explanation of the study. It contains of the background of the study, formulation of the problems, operational definitions, aims of the research, and significances of the study.

A. Background of the Study

Artificial Intelligence (AI) has changed resources and education. AI applications can receive, store, and analyze data, as well as promote self-directed learning, assist teachers in accounting for individual student differences, and improve standards of learning and instruction (Tulasi & Rao, 2023). Additionally, Wang et al. (2023) identified that AI is a modern technology that simulates and expands human intelligence. For student teachers, of the several benefits of AI, AI can provide the dual benefits of modifying teaching to suit individual needs and creating a more personalized learning experience. Therefore, this section aims to elaborate on the dual benefits of AI in ELT, specifically in modifying teaching to suit individual needs and creating a more personalized learning experience.

First, implementing AI can help student teachers modify their teaching to suit individual needs. Celik et al. (2022) AI can help teachers identify and meet the needs of their students, give them immediate feedback, and automatically grade their essays. AI systems are not always able to offer different kinds of feedback based on those needs, even though they can analyze data to identify student learning profiles and enable teachers to adapt their teaching strategies to meet individual needs (Burststein et al., 2004). AI can be used by teachers to keep an eye on their pupils in real time and give them feedback right away (Swiecki et al., 2019). In addition, automatic essay evaluation powered by AI can increase the effectiveness of assessments. Celik et al. (2022) and Yuan et al. (2020) showed that automated scoring systems can quickly and reliably assess students' essays,

saving teachers' time and enabling them to give students feedback more quickly.

Second, an additional benefit of AI is its potential to create more personalized learning experiences in ELT. Daulay and Ginting (2024) emphasizes that AI tools, such as ChatGPT, are helpful in tailoring English lessons to the needs of individual students. Students can engage more deeply and improve their language skills thanks to this individualized approach. In post-pandemic education, where many learners' demands have changed, AI-driven technologies solve individual gaps and improve learning efficiency by tailoring lesson content to each student's competency level (Hockly, 2023).

While previous studies show that AI can improve ELT by modifying teaching to suit individual needs and personalizing learning, limited studies have specifically highlighted the types of AI used and the challenges student teachers face during teaching practice. Although AI's potential and drawbacks in ELT have been explored, further in-depth research is needed, particularly from a TPACK perspective. This study aims to fill that gap by exploring the types of AI used and drawbacks perceived by student teachers when integrating AI into ELT through the TPACK framework.

B. Formulation of the Problems

The research questions of this study are:

- 1) What types of AI do student teachers use in English language teaching?
- 2) What are the potential and drawbacks of integrating AI in ELT investigated through the TPACK framework?

C. Operational Definitions

These are operational definitions of terms in this research to avoid misunderstanding:

1. **AI in ELT** AI in ELT refers to the use of AI techniques and

technology to improve the teaching and learning process. This study examines the types of AI technologies used by student teachers and the potentials and drawbacks they perceive in supporting effective ELT.

2. **Technological Pedagogical and Content Knowledge (TPACK) Framework** TPACK is a framework for analyzing and describing the types of essential knowledge that student teachers need to effectively integrate technology into their instruction. In this study, TPACK specifically refers to student teachers' ability to effectively integrate three knowledge domains into their teaching practices: technology (AI tools for language learning), pedagogy (effective teaching strategies and methods), and content knowledge (ELT materials and skills). This integration is essential for student teachers to create engaging, supportive, and adaptive English language learning environments that use AI technologies.
3. **Student Teachers** Student teachers in this study refer to students of the English Education Department from several universities in Tasikmalaya who have carried out teaching practice (teaching practice organized by the university). Teaching practice involves a period of classroom teaching experience in junior high schools, where student teachers are expected to apply their pedagogical, content, and technological knowledge in a real teaching environment. Their participation in this practice serves as a basis for evaluating their perceptions and experiences regarding the integration of AI technology in ELT.

D. Aims of the Research

Based on the research questions, this study aims to identify the different types of AI used by student teachers, as well as to identify the potential and drawbacks of using AI in ELT, investigated through the TPACK framework.

E. Significances of the Study

1. Practical Significance

The study's findings can be used by teachers and student teachers to improve the practical implementation of AI tools in English language education. By understanding the identified benefits and drawbacks, teachers and student teachers can adjust their strategies to integrate AI more effectively in ELT.

2. Empirical Significance

This study aims to give empirical information about student instructors' perspectives and experiences, providing insights into the effectiveness and limitations of implementing AI technologies in the classroom. This research of potentials and drawbacks aims to inform teachers and student teachers about how these technologies improve or degrade education, based on the experiences of student teachers who have integrated AI tools into ELT.