

CHAPTER I

INTRODUCTION

1.1. Background of the Study

The development of Artificial Intelligence (AI) in recent years has transformed into a social phenomenon that fundamentally changes the way individuals access information and learn, including in the field of language education. AI is no longer limited to administrative functions; it has evolved into a learning technology capable of providing adaptive and personalized feedback to learners (Zhai et al., 2021). In the context of English as a Foreign Language (EFL) learning, AI is utilized through chatbots, adaptive learning applications, and automated evaluation systems that enable learners to study independently outside of formal classrooms (Wang et al., 2023). The shift in paradigm from teacher-centered learning to learner-centered learning requires students to take greater responsibility for their own learning process. This context becomes increasingly relevant in Indonesia, where the average English proficiency of students ranks 80th out of 123 countries, with a score of 471, according to the EF English Proficiency Index (EF Education First, 2025), placing Indonesia in the low proficiency category. The gap between investments in English education policy and graduate competency outcomes indicates that conventional instructional approaches have not optimally developed students' self-learning capacities, as identified by (Melvina & Julia, 2021) who found low learning autonomy to be a critical factor hindering the English proficiency of EFL students in Indonesian higher education.

The trend of using generative AI among Indonesian English education students shows exponential growth. (Fitria, 2025; Madar & Mufti, 2025) in a survey of 600 students from six leading universities found that 69% of students use ChatGPT for academic tasks, with the main uses being idea development, task preparation, and thesis outline creation; while (Fitria, 2025) found the main motivations to be instant grammar correction (68%), obtaining example sentences (61%), and assistance with academic writing tasks (57%). This shift in learning behavior from exclusive reliance on teachers and textbooks to a hybrid learning

model with AI has not yet been matched by a deep understanding of how AI contributes to or hinders the development of Self-Directed Learning (SDL) in the EFL context. The tension between two theoretical scenarios—AI as scaffolding that reduces cognitive and affective barriers in SDL (Shadiev & Yang, 2020), versus AI as a trigger for learned helplessness that erodes learning independence (Karimi & Khawaja, 2023) reflects that the specific mechanisms of AI interaction with the SDL process of EFL students in Indonesian higher education have not been adequately addressed.

The urgency of answering this question is increasing, considering the practical implications in the field. (Budianto & Mason, 2021) Indicate that English education programs in Indonesia face serious challenges in producing graduates with the character of self-directed learners; paradoxically, amidst the abundance of AI-based learning resources, many students use them reactively—merely as tools for completing short-term tasks—rather than as instruments for developing long-term self-directed learning capacities. (Kohnke et al., 2023). Previous research has left three significant gaps: (1) methodological gap—most quantitative studies fail to capture the psychological-cognitive mechanisms linking AI use with SDL development; (2) contextual gap—almost all research has been conducted in East Asia and Southeast Asia outside of Indonesia, so the findings may not be transferable to the Indonesian context; and (3) conceptual gap—no research has simultaneously examined the dimensions of SDL in the EFL context, a gap that aligns with broader calls for more learner-centered and psychologically grounded AIED research (Chiu et al., 2023).

Starting from this gap, this study aims to fill it through an in-depth qualitative investigation of EFL students' experiences in using AI as a tool for SDL development. The concept of SDL, formulated (Knowles, 1975) as a process in which individuals take the initiative to diagnose learning needs, set goals, identify resources, choose strategies, and evaluate learning outcomes independently, becomes the main conceptual framework. In the context of EFL, the implementation of SDL often faces challenges such as limited access to learning resources and minimal continuous feedback; the presence of AI offers new opportunities to support each stage. From the perspective of (Zimmerman, 2002),

the success of SDL is influenced by self-regulation abilities that include forethought, performance control, and self-reflection; AI features facilitate these three components through goal setting, continuous progress monitoring, and system-based understanding evaluation. Therefore, this study focuses on how AI supports the development of SDL among EFL students through (Knowles, 1975) framework, reinforced by self-regulation mechanisms (Zimmerman, 2002).

1.2 Problem of The Study

1. How does Artificial Intelligence support EFL students in identifying their learning needs as part of Self-Directed Learning?
2. How does Artificial Intelligence support EFL students in formulating their learning goals as part of Self-Directed Learning?
3. How does Artificial Intelligence support EFL students in identifying and utilizing appropriate learning resources as part of Self-Directed Learning?
4. How does Artificial Intelligence support EFL students in choosing and implementing appropriate learning strategies as part of Self-Directed Learning?
5. How does Artificial Intelligence support EFL students in evaluating their learning outcomes as part of Self-Directed Learning?

1.3 Purpose of this Study

1. To explore how Artificial Intelligence supports EFL students in identifying their learning needs as part of Self-Directed Learning.
2. To investigate how Artificial Intelligence supports EFL students in formulating their learning goals as part of Self-Directed Learning.
3. To examine how Artificial Intelligence supports EFL students in identifying and utilizing appropriate learning resources as part of Self-Directed Learning.
4. To analyze how Artificial Intelligence supports EFL students in choosing and implementing appropriate learning strategies as part of Self-Directed Learning.
5. To explore how Artificial Intelligence supports EFL students in evaluating their learning outcomes as part of Self-Directed Learning.

1.4. The Contribution of The Study

This work aims to provide practical, theoretical, and methodological contributions, as seen below:

1) Practical Contribution

From a practical standpoint, this research provides tangible contributions to various stakeholders in the field of education. For students, the findings of this research can serve as a foundation for optimizing the use of AI technology to enhance effectiveness and independence in learning English. For educators, this research offers practical insights in designing more adaptive and technology-based learning strategies, thereby encouraging students to be more active and independent in the learning process. Meanwhile, for educational institutions and policymakers, this research provides a strong empirical basis for developing policies and programs that support the integration of AI into the learning system, thereby addressing the demands of digital transformation in education in a more systematic and sustainable manner.

2) Theoretical Contribution

By incorporating artificial intelligence as a component that is both instrumental and transformative in the learning process, this research helps to broaden the conceptual framework of self-directed learning. By connecting the theory of learner autonomy and technology-enhanced learning within a framework that is more contextual and pertinent to the advancements in digital education, this study enhances the scholarly conversation. As a result, this study not only supports current ideas but also presents a fresh viewpoint on how intelligent technology might effectively act as a mediator to support the learning autonomy of EFL students. Furthermore, this study closes a gap in the literature by explicitly investigating the connection between AI use and self-directed learning techniques in the context of language acquisition.

3) Methodological

This research contributes through the approach used in examining the relationship between AI and self-directed learning strategies. By adopting a relevant research design and structured instruments, this study offers an analytical model that can be replicated or further developed by other researchers

in different contexts. Furthermore, this research also demonstrates how technological variables, particularly AI, can be clearly operationalized in educational research, thereby providing clarity in data measurement and interpretation. This contribution is important in enhancing the quality of research in the field of technology-based education, especially in ensuring that the methodological approaches used can accurately and deeply capture the complexity of the interaction between technology and learning behavior.

1.5. Scope and Limitation

Scope

This study focuses on exploring how Artificial Intelligence (AI) tools encourage self-directed learning strategies among EFL (English as a Foreign Language) students. The research is conducted using a qualitative method, specifically through interviews and documentation involving selected EFL students at the Universitas Muhammadiyah of Ponorogo. The study emphasizes the use of AI-powered platforms or applications such as language learning apps, chatbots, or writing assistants that support English language learning outside the traditional classroom setting. The primary focus is on identifying the strategies students develop and use when engaging with AI tools to learn English independently.

Limitation

The study places more emphasis on the experiences, opinions, and tactics that students use while interacting with AI during their language learning process than it does on the technical performance of AI tools. So it cannot be measured in terms of the improvement in students' academic understanding.

1.6. Definition of Key Terms

English Foreign Language:

EFL learning, according to Harmer (2015), is the study of English in a setting where it is not frequently used in daily contact; as a result, students typically only utilize English in the context of formal instruction in language schools or other educational institutions.

Artificial Intelligence:

Kaplan and Haenlein (2019) define AI as the ability of a system to correctly interpret external data, learn from that data, and use that learning to achieve specific goals through flexible adaptation.

Self-Directed Learning

(Knowles, 1975) states that Self-directed learning is a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.