CHAPTER I

INTRODUCTION

A. Background of Study

In recent years, the integration of digital technology in education has significantly transformed the teaching and learning process, particularly in English as a Foreign Language (EFL) contexts. One of the most rapidly developing innovations is the use of artificial intelligence (AI)-based tools to support students in completing academic tasks. AI technologies are increasingly integrated into educational environments because they can assist learners in organizing information, generating ideas, and processing complex learning materials more efficiently. In EFL learning, these technologies are considered beneficial because they support both cognitive and linguistic development, particularly in academic writing activities.

Among various AI-based educational tools, AI-powered mind mapping applications have emerged as innovative tools that combine visual learning strategies with intelligent digital features. Unlike traditional manual mind maps, AI-based mind mapping tools can automatically generate visual representations of information through features such as keyword extraction, idea organization, and text summarization. One example is Mapify, an AI-based mind mapping tool that can transform texts into structured visual maps, enabling learners to identify key

concepts and relationships more effectively (Ashley, 2025). These features are particularly relevant in academic contexts where students are required to process large amounts of information and organize ideas systematically.

Previous studies have highlighted the educational benefits of mind mapping as a learning strategy. Mind mapping has long been recognized for its role in improving idea organization, creativity, comprehension, and critical thinking. In writing activities, mind mapping helps learners visualize relationships among concepts and organize information before transforming ideas into written texts. Tarin & Yawiloeng (2022) found that mind mapping supports EFL learners in organizing ideas more logically during writing activities, while Rosdiana & Mayusandra (2023) reported that digital mind mapping enhances students' engagement and flexibility in learning. In addition, AI-based tools have been found to support independent learning and help students structure ideas more efficiently (Pasenta & Chakim, 2024).

Despite these advantages, students still encounter various difficulties in academic writing activities, particularly in summary writing tasks. Summary writing requires learners to identify main ideas, distinguish relevant information from supporting details, synthesize information, and restate content concisely using their own words while maintaining the original meaning. These processes become more challenging when students work with academic texts such as journal articles, which are often characterized by dense information, complex structures, and formal academic language (Julius & Kaazara, 2025; Kaufhold, 2025). As EFL learners

frequently face linguistic limitations and organizational difficulties, many students struggle to manage and summarize academic information effectively.

To address these challenges, mind mapping can function as a supportive strategy that helps learners organize and simplify information visually before writing. AI-based mind mapping tools potentially provide additional support through automated idea generation and information structuring.

Although previous studies have demonstrated the educational benefits of mind mapping and AI-assisted learning in EFL contexts, research specifically examining AI-based mind mapping tools for journal article summarizing remains limited. Existing studies have generally focused on traditional or digital mind mapping, general writing activities, or learners' perceptions of AI technologies. Consequently, further investigation is needed to explore how EFL students actually use AI-generated mind maps during summarizing activities and what challenges they encounter. This study therefore explores undergraduate EFL students' experiences of using Mapify as an AI-based mind mapping tool for journal article summarizing.

In line with these gaps, this study aims to explore undergraduate EFL students' experiences in using Mapify for journal article summarizing activities. By employing observation and semi-structured interviews, this study seeks to investigate how students use Mapify to support journal article summarizing activities, including how they organize ideas, identify main information, and utilize AI-generated mind maps throughout the summarizing process, as well as the

weaknesses of the tool when used in these activities. Observation is expected to provide insights into students' actual behaviors, strategies, and interactions with AI-generated mind maps during summarizing activities, while interviews allow for a deeper exploration of students' experiences and reflections regarding the use of Mapify.

This research is conducted at Antasari State Islamic University, particularly among students of the English Language Education Department. The study is expected to contribute theoretically and practically to the growing discussion on AI integration in EFL education, especially regarding the use of AI-based mind mapping tools in academic writing contexts.

Additionally, this study is grounded in the Islamic value of lifelong learning as stated in Surah Al-Mujadila [58:11]:

يٰٓاَيُّهَا الَّذِيْنَ اٰمَنُوْٓا اِذَا قِيْلَ لَكُمْ تَفَسَّحُوْا فِى الْمَجٰلِسِ فَافْسَحُوْا يَفْسَحِ اللّٰهُ لَكُمْۚ وَاِذَا قِيْلَ

انْشُزُوْا فَانْشُزُوْا يَرْفَعِ اللّٰهُ الَّذِيْنَ اٰمَنُوْا مِنْكُمْۙ وَالَّذِيْنَ اُوْتُوا الْعِلْمَ دَرَجٰتٍۗ وَاللّٰهُ بِمَا تَعْمَلُوْنَ خَبِيْرٌ ﴿١١﴾

This verse emphasizes the importance of seeking knowledge, as Allah SWT elevates those who possess knowledge. In the context of education, the integration of AI-based tools can be viewed as a supportive means that assists learners in acquiring, organizing, and understanding knowledge more effectively while still encouraging active cognitive engagement and meaningful learning processes.

Therefore, this research is conducted under the title **"EXPLORING EFL STUDENTS' EXPERIENCES OF USING MAPIFY AS AN AI-BASED MIND MAPPING TOOL FOR JOURNAL ARTICLE SUMMARIZING".**

B. Definition of Key Terms

1. AI-Based Mind Mapping Tools

AI-based mind mapping tools refer to digital applications that utilize artificial intelligence to assist users in generating, organizing, and connecting ideas visually in the form of interactive diagrams known as mind maps. Unlike traditional paper-based mind maps, these tools automatically support users in structuring and refining ideas. In this study, Mapify is the AI-based mind mapping tool used to facilitate undergraduate EFL students in organizing and summarizing journal article content.

2. EFL (English as a Foreign Language) Students

EFL students are individuals studying English in an environment where English is not used as the primary language of daily communication. This study specifically refers to undergraduate EFL students from Antasari State Islamic University, who utilize digital learning tools, including AI-based mind mapping applications, as part of their academic activities.

3. Journal Article

A journal article is a scholarly piece of writing published in an academic journal, typically based on research or critical analysis. It is characterized by a

formal structure, including sections such as abstract, introduction, methodology, results, and discussion, and is supported by references to previous studies. In this study, journal articles serve as source materials for summarizing activities, where undergradua te EFL students read, identify key ideas, and produce summaries with the support of Mapify.

4. Summary Writing

Summary writing is the ability of students to identify, organize, and restate the main ideas of the text in a shorter form while keeping the original meaning of the text. In this study, summary writing is the specific writing activity in which EFL students use Mapify to organize, select, and present key ideas from source materials.

C. Research Questions

The main questions to be addressed in this research are:

a. How do EFL students use Mapify to support journal article summarizing?

b. What are the weaknesses of using Mapify for journal article summarizing?

D. Objectives of Study

The objectives of this study are:

1. To explore how EFL students use Mapify to support journal article summarizing.
2. To know the weaknesses of using Mapify for journal article summarizing.

E. Significance of Study

This study contributes both theoretically and practically to the field of EFL learning and technology-enhanced language education. Theoretically, this study contributes to the growing body of knowledge on AI-supported language learning by exploring how undergraduate EFL students use Mapify in journal article summarizing activities. Unlike previous studies that mainly focus on general writing tasks or traditional mind mapping, this study specifically investigates the use of an AI-based mind mapping tool in supporting students' processes of identifying, organizing, and synthesizing key ideas from academic texts. In addition, by employing a phenomenological approach, this study provides deeper insights into students' lived experiences and perceptions of using AI-based tools in academic writing contexts, particularly regarding the weaknesses of the tool.

Practically, this study provides useful insights for educators, curriculum developers, and educational technology developers regarding the integration of AI-based mind mapping tools in EFL writing instruction. The findings may help educators implement more effective technology-supported learning strategies for journal article summarizing, assist curriculum developers in integrating digital literacy and AI-assisted learning into academic writing instruction, and offer recommendations for educational technology developers to improve the usability and effectiveness of AI-based mind mapping applications such as Mapify.