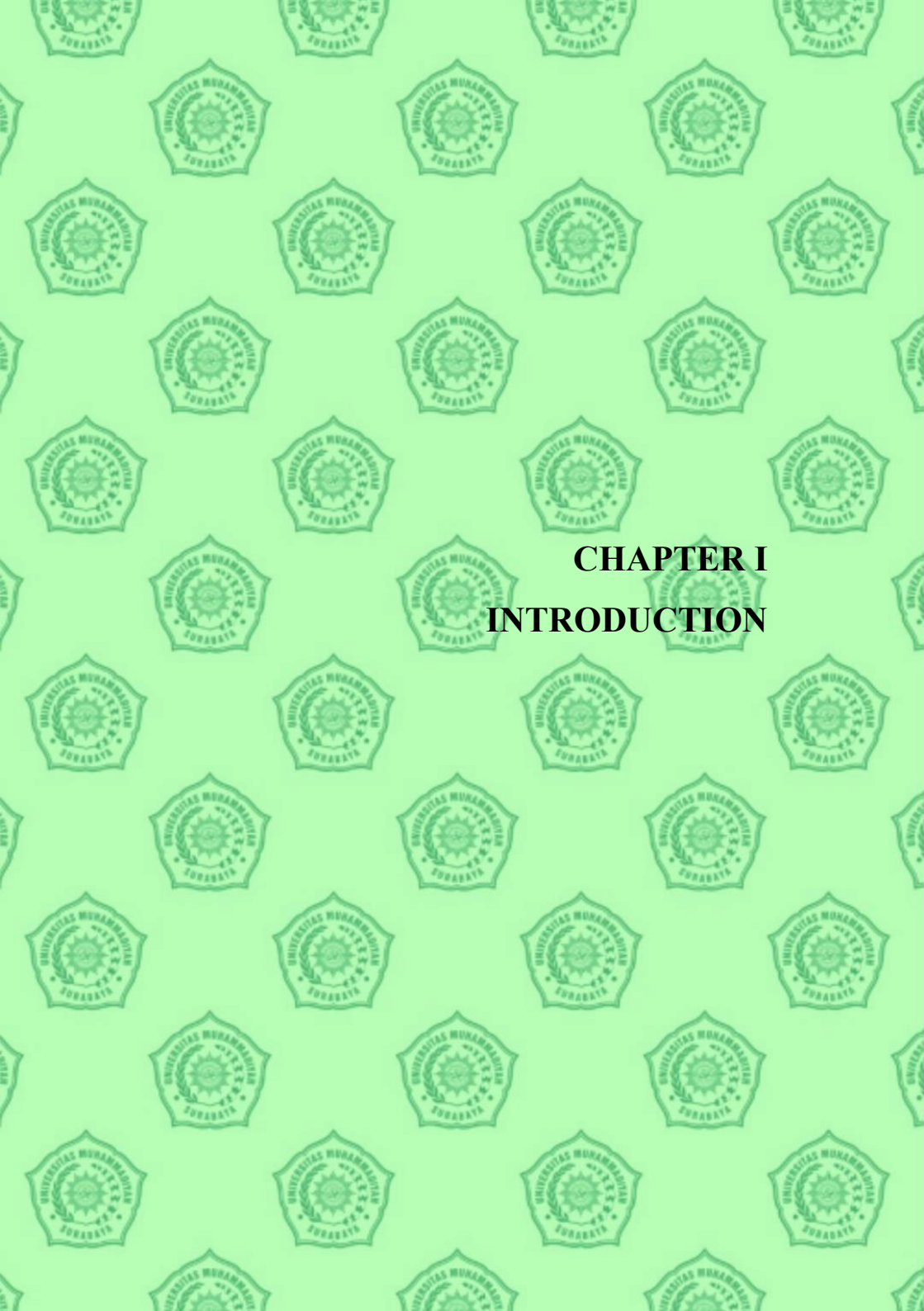




CHAPTER I

INTRODUCTION

CHAPTER I INTRODUCTION

This chapter presents some points of this part as the introduction in this thesis. The researcher organizes this chapter by dividing six parts; the first part is a background of research, the second is research questions, the third is research purpose, the fourth is scope and limitation, the fifth is a significance of the research, and last is the definition of key terms.

1.1 Background of the Study

In the digital age, technology has developed rapidly, affecting many aspects of life, especially education. It is very important to understand how to use technological developments. Improve the learning process and create meaningful learning experiences, current learning preferences strongly emphasize the speed, location, and time preferred by learners. Students can study at their own pace and convenience with the asynchronous learning mode (Ahmed & Opoku, 2022).

In Indonesia, educational institutions must encourage the use of technology that helps advance learning. There is much discussion about the use of Artificial Intelligence (AI), which provides quick results to its users. Artificial Intelligence is (AI) becoming more popular in higher education as a rapidly growing area of study and use. AI refers to computing systems that can perform tasks similar to humans, like learning, adjusting, combining information, correcting themselves, and using data to handle complex problems (Al Massaad et al., 2024). The integration of technology into the learning process helps educators and students engage with each other in a two-way manner.

In the 5.0 period, the use of Artificial Intelligence based Writing Tools has become common among students of English as a Foreign Language (EFL). Artificial Intelligence-based Writing Tools are used for language analysis, plagiarism detection, and the creation of scientific writing without human intervention (Safitri & Fithriani, 2024). A new generation of writing tools has arisen to help users with the writing process as a result of the development of AI technology (Marzuki et al., 2023). When used carefully, AI-powered tools can greatly improve

academic writing as long as they are backed by strong digital literacy and teacher leadership, which preserves human cognitive engagement (Hanura et al 2025). Students view artificial intelligence (AI) as a useful tool, especially for improving language skills, spelling correction, and word choice, as well as for assisting them in the process of ideation, topic selection, and writing progress (Amani & Bisriyah, 2025).

Several studies have been conducted on the use of Artificial Intelligence based writing tools, but not many studies have been conducted by students on whether they are effective or useful. EFL students have diverse perspectives on the use of technology in learning writing, according to previous research. Study by (Alharbi, 2023) found that students felt assisted by AI tools in organizing ideas and grammar, but they also expressed concerns about becoming overly reliant on technology. This suggests that while there are benefits, there are also uncertainties and challenges that need to be addressed. AI-based tools can enhance students' writing skills in English language education.

According to (Slimi, Zouhaier et al, 2025), using technology in language learning can help student engagement while providing significantly faster and more accurate feedback through educational experiences. Writing requires not only mastery of grammar and comprehension, but also the ability to organize ideas logically and creatively. One of the newest advancements in educational technology is the use of Artificial Intelligence, like the Perplexity AI platform.

Several previous studies have conducted research similar to my topic there is evidence that AI can make learning easier and more interesting for students in education. As stated by (Khairuddin et al., 2024), artificial intelligence can assist English students in the learning process by providing customized support. Students still feel the need to learn to write independently even though AI tools can help through the development of ideas from each student's mind, which can then be corrected using AI digital writing tools. The use AI in learning writing can improve quality of students' writing that provide maximum results and be grammatically correct.

On the other hand, (Song & Song, 2023) found that EFL students who use AI tools show improvement in writing skills. This finding was reinforced by (Kim & Kim, 2022), who emphasized that previous experiences with AI tools greatly influence their perception of them. The use of AI in education can be maximized with a better understanding of how students view AI so that it can be integrated more structurally into its use. The use of artificial intelligence (AI) in education is becoming increasingly popular in today's computer and internet era, but there are still big problems in figuring out how students use and react to AI, particularly in learning writing using Perplexity AI.

Perplexity AI is an artificial intelligence (AI) technology used to search and filter material from various trusted sources, including official websites, academic databases, and scientific journals (Hasanah et al., 2025). This helps students find reliable and relevant content. AI provides an environment that supports and encourages ethical behavior. The continued use and need for AI technology in education is highly recommended to overcome implementation challenges that may arise with the use of Perplexity AI (Kim & Kim, 2022). A clear understanding help students evaluate these tools, develop and implement Perplexity AI in the English language learning curriculum smoothly.

Previous research has shown that artificial intelligence (AI) can improve the learning experience for students, although several areas still require further exploration, particularly regarding how English language learners perceive the use of AI, such as Perplexity AI, in learning writing (Alharbi, 2023). Supporting this issue, Patia et al. (2025) conducted a literature review of four relevant studies to explore the use of Perplexity AI in academic writing. The findings indicate that Perplexity AI contributes positively by increasing students' writing efficiency, improving writing quality, supporting research and data analysis, and developing students' language skills.

However, this review also identifies several challenges, including limited contextual understanding, the risk of misinformation, overreliance on the tool, and data privacy issues, all of which must be addressed through ethical and responsible use. One of the studies that also

examined this issue is Hasanah et al. (2025), who investigated the perception of fifth-semester English education students at Universitas KH.A. Wahab Hasbullah Jombang toward the use of Perplexity AI for writing skills. Using a qualitative descriptive method with questionnaires and interviews involving 24 students, the results showed that 74.8% of respondents felt positively supported by Perplexity AI in finding ideas, checking grammar, searching for references, and revising their writing, although concerns remained regarding plagiarism and excessive dependence on the tool.

This study is very important because it can make a significant contribution to the development of English language education in the digital age. By understanding how students view the Perplexity AI tool, educators can create teaching strategies that are more tailored to students' needs. Additionally, this research can help identify the challenges students using Perplexity AI, enabling development of appropriate solutions. Therefore, it is hoped that this study provide practical recommendations for educators to design teaching strategies that better meet students' needs. This study help create a more collaborative learning environment between humans and AI, and overall improve the quality of education.

1.2 Research Questions

This study is guided by the following research questions:

1. When do the English education students' use Perplexity AI for learning writing?
2. What are English education students' perception of the impact and value of Perplexity AI in enhancing their writing skills?
3. What is students' perception of the advantages and disadvantages of Perplexity AI as a tool in learning writing?

1.3 Research Objectives

Based on the research question, this study aims to:

1. To describe English education students' use of Perplexity AI for learning writing.
2. To explain English education students' perception of the impact and value of Perplexity AI in enhancing their learning writing.
3. To explain students' perception of the advantages and disadvantages of Perplexity AI as a tool in learning writing.

1.4 Significance of the Research

Some purposeful research is expected to have benefits on the audience of the research. It is also expected to benefit the writer or researcher himself. Accordingly, the writer wishes this to be significant from both theoretical and practical point of view.

1.4.1 Theoretical Significance

Theoretically, this study contributes to the literature on technology-assisted language learning, specifically the use of artificial intelligence (AI) in learning writing. By analyzing English language learners' perspectives on the confusion caused by AI, this study provides empirical evidence on the value, impact, and role of AI-based learning tools. This study highlights the current discussion on AI-supported writing by showing how academics can use AI to support critical thinking, creativity, and independent writing skills. In summary, this study addresses the weaknesses of previous research by focusing specifically on Perplexity AI, and provides references for future research on the integration of AI in English language teaching.

1.4.2 Practical Significance

Practically, this study provides, students, lectures, and curriculum designers with insightful information about teaching English. These results can assist lectures in creating writing lessons that successfully incorporate Perplexity AI as a helpful learning aid while preserving the growth of students' autonomous writing abilities. This study helps students utilize AI tools more responsibly and successfully by highlighting the advantages and difficulties of employing Perplexity AI.

Furthermore, this research can help educational institutions develop strategies and policies for the moral and effective application of AI in learning writing, which ultimately promote a more dynamic, interesting, and technologically assisted learning environment.

1.5 Scope and Limitation

1.5.1 Scope

This research is limited to students majoring in English Education at Universitas Muhammadiyah Surabaya. The participants are undergraduate students who are enrolled in or have finished courses connected to writing. Therefore, because their learning environments and teaching methods may vary, the results of this study might not apply to students in various majors, colleges, or educational levels. The study ignores other AI tools or learning environments outside of classroom settings, like independent study or online learning platforms, and instead concentrates only on the usage Perplexity AI for writing classes during lectures.

1.5.2 Limitation

This research is limited to students majoring in English education at Universitas Muhammadiyah Surabaya and was conducted through questionnaires. The focus of this research is on learning in writing classes during lectures. Because their learning environments and teaching strategies may vary, students from various departments or universities may not be represented in the research's findings. Furthermore, this study excludes writing experiences in extracurricular contexts, online platforms, and independent learning outside of formal classroom settings because its focus is restricted to learning activities in writing classes during lectures.

1.6 Definition of Key Terms

To avoid misunderstanding to understand this study, the definition of terms which are often found in this study as follows:

1. **Perception of Artificial Intelligence (AI)**

Perception in this study refers to how students perceive, comprehend, and react for Artificial Intelligence (AI) employment as a teaching tool in writing classes.

2. **Artificial Intelligence (AI) in Writing**

Artificial Intelligence (AI) refers to understanding language, reasoning about writing development, and generating text are some examples of digital systems that utilize Artificial Intelligence (AI).

3. **Perplexity AI in Learning Writing**

Perplexity AI is positioned as an AI-based learning tool that assists students throughout the writing process, particularly in concept formulation, information searching, and rewriting.

4. **Learning Studies**

The process of acquiring new knowledge, skills, behaviors, values, or attitudes through experience, study, or instruction, resulting in changes, understanding, and the ability to adapt to one's environment.

5. **Writing**

In this study, writing is a process of developing students writing skills in an academic setting, specifically in writing courses in English Education study programs. This process involves steps such as gathering ideas, drafting, revising, and editing.

6. **Micro and Macro Skills of Writing**

Macro and micro skills in writing refer to the integration of mastery of elements such as grammar, vocabulary, and spelling (micro) with the ability to organize discourse and develop ideas rhetorically (macro) to produce coherent and effective writing.