CHAPTER I

INTRODUCTION

Chapter I has explained why this research is important as a starting point for discussing this topic in more depth. In this section, the researcher has provided an overview of the research background, identified the problem, outlined the limitations of the research, formulated the research questions and objectives, and highlighted the significance of the research.

1.1 Research Background

In the context of education, English is commonly taught in schools and universities, even in countries where it is not the native language, over twelve years of schooling and three years at the university level, students are introduced to English (Nishanthi, 2018). Despite English not being their native language, proficiency in English skills remains a primary focus. This includes the four fundamental skills: writing, listening, speaking, and reading, which are essential for mastering the language effectively. Writing has consistently been a key component of the English curriculum (Harmer, 2004). Nunan (2003) suggests that writing involves the cognitive process of generating ideas, articulating them, and structuring them into coherent sentences and paragraphs. D. H. Brown and Lee (2015) also noted that written works are frequently the outcome of a process of a process of ideation, composition, and revision that calls for specialized skills, which not all speakers develop naturally. In writing, students not only assemble words but also transform their ideas

into meaningful expressions in the target language (H. D. Brown, 2007). Writing aims to inform the reader by providing facts, events, opinions, and statistics, offering new perspectives and information. This skill should be taught to help EFL learners acquire the language by visually demonstrating how it is constructed and reinforcing what they have learned (Harmer, 2001). EFL students need to be aware of their writing skills, as this can aid in understanding other basic English skills.

According to Moses and Mohamad (2019), writing in English has always been challenging for EFL students to master. The factors that inhibit EFL students' writing include their mastery of grammar and vocabulary, lack of practice, and low self-confidence (Muamaroh et al., 2020). Ariyanti and Fitriana (2017) found that students had difficulties with grammar, cohesion, and coherence. They also identified minor issues in students' writing, such as paragraph organization, diction, and spelling errors. Similarly, Inayah and Putri Nanda (2016) reported that high school EFL learners faced several problems in improving their writing skills related to grammar and language use. Most students find it difficult to construct sentences correctly based on grammar rules. However, EFL students faced fewer problems related to content, specifically in including supporting details and ideas in their writing.

In the 21st century, EFL writing instruction is undergoing significant changes in the dynamic field of education, characterized by the seamless integration of literacy, knowledge, skills, and technological advancements (Arta et al., 2019). According to Wiraningsih and Santosa

(2020), adopting diverse strategies is crucial for enriching teaching methodologies. These strategies include initiating learning, using collaborative approaches, and integrating smartphone applications specifically designed for English language learning (Santosa et al., 2020). In line with these developments, Apsari and Parmawati (2022) argue that blended learning, which combines traditional classroom instruction with online resources accessible through smartphones or Internet connections, is effective in strengthening students' writing skills and fostering their passion for writing. These insights underline the need for EFL educators to adopt innovative pedagogical approaches and leverage technological advancements to develop students' writing skills and foster their enthusiasm for learning.

To enhance the rapidly growing popularity of blended learning, Artificial Intelligence (AI) can be seamlessly integrated into the educational process. AI technology is rapidly transforming the way people work, learn, and interact socially, presenting a unique opportunity to revolutionize education (Manning, 2020). AI can imitate human-like intelligence and adapt through data-driven insights, making it a transformative force in the education sector. It enables personalized learning experiences and optimizes instructional methodologies (Chen et al., 2020). To meet the diverse and evolving needs of learners in the digital era, educators must embrace AI-driven approaches. This technological trend represents a paradigm shift in how individuals engage with information and acquire knowledge.

The application of AI technology in education has rapidly grown in recent years, offering innovative solutions to enhance the teaching and learning experience (Vera, 2023). AI plays a significant role in this context, allowing people to learn and teach with educational assistants such as automatic assessment, voice assistants, speech recognition, global courses, and others. As a pillar of the Fourth Industrial Revolution, AI will play a central role in facilitating the learning process adapted to technology. It is believed to enhance learning and help individuals reach their educational objectives more efficiently. Today, to make the learning process more practical and effective, numerous AI-driven innovations and advancements are being and will continue to be implemented. Learning with AI can be more innovative by incorporating technology, and it has the potential to improve learning outcomes and student engagement (Fabrico & Ayala-Pazmiño, 2023).

Tira (2021) states that the role of AI is limited to assisting and empowering teachers to make the learning process enjoyable for students. It is also often used to support the learning process, either in schools or for self-directed learning, and it is expected to be increasingly utilized in learning activities in the future. Artificial Intelligence in Education (AIEd) is being increasingly investigated as a promising tool to bolster and enrich language learning. It holds the promise of providing personalized, interactive, and adaptable learning experiences tailored to the specific needs and preferences of individual learners (Rusmiyanto et al., 2023). AI-based applications for teaching and learning have been developed,

particularly in English as a Foreign Language (EFL) classrooms, where AI can assist teachers in teaching and students in learning (Sumakul et al., 2022). It simplifies the task of creating learning media for teachers and makes it more practical. AI can be implemented in language teaching because it plays an important role in various fields, such as business, technology, and global communication.

Through an AI-based application or platform, AI can help EFL students learn English more effectively. One AI-based tool to improve students' writing skills is AI-powered translation, which utilizes deep learning technology based on Neural Machine Translation (NMT) systems (Schmidt, 2022). Giampieri (2023) explains that NMT is a computerized process that automatically translates from one language to another. One of the platforms or applications classified as AI-based in this case is DeepL. According to Ata and Debreli (2021), this platform offers numerous functions, ranging from speech recognition to pronunciation assistance. However, the most commonly utilized feature is the translation of written text across languages. They also mention that students employed DeepL for three primary objectives: expanding vocabulary, improving grammar, and refining spelling.

Google Translate (GT) is one of the platforms or applications for AI-based NMT, similar to DeepL. Hidalgo-Ternero (2021) analyzed the performance of GT and DeepL based on idioms and translation accuracy, with a final accuracy rate of 86% for Google Translate and 89% for DeepL. According to that analysis, it can be seen that they have an equally high

level of accuracy, differing by only 3%. While GT focuses on vocabulary, it has the advantage of generating translations for entire sentences. On the other hand, DeepL not only focuses on translation but also offers additional features like DeepL Write, which improves writing by correcting grammar and punctuation mistakes, adjusting tone of voice, suggesting more creative writing, and providing writing suggestions. Additionally, DeepL offers unlimited translation and document translation in the form of files, available through its premium version.

Based on preliminary interviews at SMK Negeri 1 Singaraja with 11th grade students in the hospitality major, several challenges were found that inhibited their participation in learning. Students often experience lack of confidence and anxiety during writing activities, resulting from concerns about grammatical accuracy and confusion in the use of vocabulary. Naima et al. (2024) also said that hospitality students at vocational high school demonstrating adequate ability to express ideas related to English language services, some students still face challenges in using appropriate competence and grammar in writing. Additionally, hospitality students struggle with poor writing scores due to low self-efficacy in writing. Many students expressed uncertainty in spelling correctly, lacked confidence in articulating their thoughts in writing, and felt overly apprehensive about writing essays. Documentary analysis further revealed difficulties among students in organizing and using writing mechanisms, including difficulties with grammatical rules and the complexity of writing in a second language. Specialized roles such as front

desk clerks, hospitality marketers, and room service managers require strong writing skills for effective communication. Kaharuddin et al. (2019) supported that writing skills are essential for crafting presentations, an important skill emphasized by hospitality industry graduates. Therefore, there is an urgent need for targeted and interactive learning approaches to improve the writing skills of hospitality students. Google Translate is the predominant tool used by students to translate texts during writing assignments. However, students often express dissatisfaction with the effectiveness of Google Translate in ensuring grammatical accuracy. On the teachers' side, they acknowledge that students' writing performance benefits from smartphone-enabled learning, allowing for varied vocabulary usage. However, they note that students' understanding of grammar and sentence construction remains insufficient. From another perspective, students' writing assessment scores provide quantifiable evidence indicating that their writing skills are still relatively low in proficiency.

In line with the preliminary interview, Nurlela et al. (2021) mentioned that the use of Machine Translation, such as Google Translate, also contributes to students' carelessness and incompetence in writing. EFL students' writing often becomes ambiguous and hard to read due to the use of inappropriate words, phrases, and sentences. Many students translate word by word and instantly translate their entire writing, resulting in poor quality translations. Consequently, researchers have conducted studies to explore the implementation of the AI-based translation platform

DeepL in learning activities. Firstly, Hidalgo-Ternero (2021) conducted research to evaluate the effectiveness of two freely available open-source neural machine translation systems, namely Google Translate and DeepL, through corpus text analysis. Secondly, Fitria (2023) aimed to analyze errors in translation outputs of Google Translate, Microsoft Translator, and DeepL Translator when translating Indonesian texts into English, considering the necessity of human involvement in machine translation. Thirdly, Rescigno and Monti (2023) examined gender bias in translations produced by Google Translate and DeepL in English, Italian, and German. Hereafter, Bunga and Katemba (2024) aimed to evaluate student perceptions of DeepL and Google Translate, focusing on the accuracy and clarity of the translations. Next, Sidiq and Syafryadin (2024) aimed to investigate the influence of DeepL on students' dictionary usage habits and grammar understanding in the context of English as a Foreign Language (EFL). Furthermore, Birdsell (2022) aimed to determine how DeepL affects students' essay writing and how teachers assess the quality of these essays. Additionally, Polakova and Klimova (2023) aimed to explore the effectiveness of DeepL Translator in enhancing language proficiency in second language acquisition. Lastly, Klimkowski (2023) aimed to discuss the role of DeepL in developing language and communication skills in the workplace.

While the highlighted research emphasizes the potential benefits of integrating DeepL into EFL classrooms, it is crucial to note the limited literature on DeepL's specific impact on students' writing competence,

particularly within the Indonesian educational landscape. Furthermore, existing studies predominantly focus on DeepL's influence on teachers' assessment methodologies and its comparison with GT. Compared to GT, DeepL offers a range of tools, including DeepL Translation and DeepL Write, that can be confidently utilized for this purpose. This study aims to investigate the benefits of utilizing AI-based translation and writing tools on the DeepL platform to know the effectiveness of that tool. By exploring the implementation of AI-driven translation and writing tools within the DeepL platform, this research provides valuable insights into optimizing NMT utilization in educational contexts. It examines DeepL's impact on students' writing skills, addressing a significant gap in current literature, and evaluates the effectiveness of DeepL in enhancing students' writing skills through innovative methodologies and customized settings. Educators can confidently learn about the benefits and best practices of integrating AI-based translation and writing tools into EFL instruction from the findings.

1.2 Problems Identification

From the aforementioned explanation, it is evident that students encounter various problems when acquiring English as a second language, particularly in writing. These problems include:

(1) The students often feel unconfident and anxious when participating in writing activities in the English context.

(2) The students were confused about using the correct English grammar, vocabulary, and words.

1.3 Research Limitation

In this research, the researcher only focuses on implementing DeepL in English as a Foreign Language to know the effect on the students in SMK Negeri 1 Singaraja, especially their writing skills.

1.4 Research Questions

As elucidated by the research, several research problems have been identified, including:

(1) Is there any significant effect of using DeepL on the writing skills of 11th grade students in Hospitality major at SMK Negeri 1 Singaraja?

(2) How is the response of 11th grade students in the Hospitality Major at SMK Negeri 1 Singaraja on the use of DeepL in their writing skills?

1.5 Research Objectives

As outlined in the research problem, the objectives of the research are:

(1) To investigate whether there is an effect of using DeepL on the writing skills of 11th grade students in Hospitality major at SMK Negeri 1 Singaraja or not.

(2) To describe the response of 11th grade students in the Hospitality Major at SMK Negeri 1 Singaraja regarding the effect of using DeepL on their writing skills.

1.6 Research Significance

This research has significant value both theoretically and practically in the field of education, especially in the writing skills of 11th grade students majoring in Hospitality major at SMK Negeri 1 Singaraja through the use of DeepL.

1.6.1 Theoretical Significance

The researchers expect that this research provide more information on how the effect of using DeepL on writing skills of the students.

1.6.2 Practical Significance

(1) For the teacher

The teacher can find new ideas to help students improve their writing skills using different approaches.

(2) For the students

Students may discover a new online platform that can stimulate and engage them when they seek to enhance their fundamental English, particularly their writing skills.

(3) For future researchers

Researchers may utilize this model as a foundation for research conducted in varied settings and with diverse samples.