

CHAPTER I

INTRODUCTION

A. Background of the Study

The ability to write English texts is one of the important abilities that learners should acquire in studying EFL. Through writing skills, students can express ideas, convey information, and demonstrate their understanding of linguistic aspects such as grammar, vocabulary, and text organisation. In addition, writing skills also reflect the level of students' ability to use English communicatively and in a structured manner. However, in practice, many students still face difficulties in writing English texts well. Common mistakes include grammar, vocabulary choice, and coherence and cohesion between sentences.

Writing is often regarded as a difficult skill, even for native speakers. To produce effective writing, students need fundamental strategies such as planning, goal setting, audience awareness, combining ideas, and revising their work.¹ Although writing is difficult to master, teachers need to support students in developing this skill because writing ability plays an important role in academic and professional success.² Thus, language teachers need to give special attention to training students in writing.³ Therefore, innovative strategies and learning media are needed to help students develop their writing skills. Field evidence shows that

¹ Carl Bereiter dan Marlene Scardamalia, *The Psychology of Written Composition* (Hillsdale, NJ: Lawrence Erlbaum Associates, 1987).

² Richard Bruning dan Carol Horn, "Developing Motivation to Write," *Educational Psychologist* 35, no. 1 (2000): 25–37, dikutip dalam Holmes (2016).

³ Jeremy Harmer, *How to Teach Writing* (Harlow: Longman, 2004).

most Year 8 pupils still struggle to write descriptive, recount or narrative texts with the correct structure. They often make mistakes in their use of tenses, word choice and paragraph organisation. In addition, low self-efficacy and a lack of feedback from teachers mean that pupils do not know where they are going wrong.

With the advancement of technology, various digital tools have been designed to assist language learning processes. One of the most widely used applications today is DeepL, an artificial intelligence (AI)-based application that functions to translate and rewrite text contextually. DeepL has the ability to provide more natural translations, improve sentence structure, and enrich vocabulary choices. As such, this application has the potential to serve as an effective tool for enhancing students' writing abilities, particularly in English language learning.

Empirical evidence shows that writing skills remain the lowest-achieving aspect among the four basic language skills, namely listening, speaking, reading, and writing.⁴ on 33 students of high schools in Bandung showed that before the journal writing intervention, the average writing ability score of students was only 60.48, increasing to 69.75 after the treatment with Sig (2-tailed) = 0.000 < 0.05, showing that there was a considerable increase. The aspects that improved the most were content and organisation, followed by vocabulary, mechanics, and language use. On the other hand, in the context of digital learning, found that students' writing quality in online collaborative writing is influenced by learning emotions.⁵

⁴ Rojab Siti Rodliyah and Arina Khoirunnisa, "The Effect of Journal Writing on Students' Writing Ability and Self-Efficacy," *Indonesian Journal of Teaching English as a Foreign Language* 1, no. 1 (April 2023): 19–29.

⁵ Zhang et al., *The Effect of Artificial Intelligence Tools on Students' Writing Performance*, (Beijing: Academic Press, 2025).

Positive emotions such as enjoyment and pride increase the fluency and syntactic complexity of writing, while negative emotions such as anxiety and frustration actually reduce the quality of writing.⁶ indicate that the DeepL application is capable of producing highly accurate translations with an average expert rating of 1.37 on a Likert scale of 1–4, which is nearly equivalent to the results of GPT-3.5 (1.29). The two do not show a significant difference ($p = 0.27$), showing that DeepL is reliable in complex and technical linguistic contexts. These findings indicate that the DeepL application has the potential to be an effective writing learning medium because it provides accurate automatic linguistic feedback, improves understanding of sentence structure, and enriches students' vocabulary.

Writing is a complex cognitive process involving planning, writing, and revision.⁷ This theory emphasises the importance of feedback and self-monitoring during writing learning activities. However, reality in the field shows that secondary school students still focus on the final product (product writing) without sufficient reflection and feedback. This shows the difference between theoretical knowledge and practical application among students not received sufficient scaffolding to develop ideas and correct language errors. The DeepL Application can bridge this gap by automatically providing examples of correct sentences, helping students pay attention to sentence structure, and correcting errors contextually. Writing skills improve when students receive relevant input and feedback. According to the

⁶ Jennie G. Noll, Johnny Felt, Justin Russotti, Kate Guastaferrro, Sunshine Day, and Zachary Fisher, "Rates of Population-Level Child Sexual Abuse After a Community-Wide Preventive Intervention," *JAMA Pediatrics* 179, no. 5 (2025): 521-528

⁷ Jack C. Richards and Willy A. Renandya, eds., *Methodology in Language Teaching: An Anthology of Current Practice* (Cambridge: Cambridge University Press, 2002).

Output Hypothesis theory, the process of writing accompanied with correction will strengthen language production skills.⁸

The DeepL application provides examples of accurate and natural language usage, helping students understand sentence structure and appropriate word choice. Writing ability is defined as the ability to convey ideas, feelings, also information in writing, taking into account linguistic aspects and text structure.⁹ a)Content development of relevant and clear ideas.b)Organisation orderliness of ideas and cohesion of paragraphs. c)Vocabulary accuracy and variety of word usage.d)Language Use accuracy of grammatical structure and syntax. Influencing factors there is a language knowledge, Writing experience and motivation and self-efficacy.

Previous studies have investigated the implementation of technology and Artificial Intelligence (AI)-based tools within improving students' writing skills. Several studies reported that DeepL and other AI applications positively contributed to students' writing performance, especially in improving vocabulary mastery, grammatical accuracy, and writing confidence.¹⁰ The use of AI-assisted learning tools was found to increase students' motivation and facilitate language learning through immediate feedback and contextual language support.¹¹ However,

⁸ Merrill Swain, "Three Functions of Output in Second Language Learning," in *Principles and Practice in Applied Linguistics: Studies in Honor of H.G. Widdowson*, ed. Guy Cook and Barbara Seidlhofer (Oxford: Oxford University Press, 1995), 125–144.

⁹ J. B. Heaton, *Writing English Language Tests: New Edition* (London: Longman, 1990).

¹⁰ Naftalia Fany Payung and Sukarno, "Enhancing EFL Students' Writing Skills: The Impact of DeepL Translation," *JOLLT Journal of Languages and Language Teaching* 13, no. 1 (2025): 483–493.]

¹¹ Ni Komang Jenisa Wiarishintia, Made Hery Santosa, and Kadek Sintya Dewi, "The Impact of Using DeepL Artificial Intelligence on Students' Writing Skills in an Indonesian Senior High School Context," *ELT Worldwide: Journal of English Language Teaching* 11, no. 2 (2024): 475–486.].

most previous studies mainly focused on senior high school and university students, emphasized students' perceptions rather than direct measurement of writing achievement, and involved relatively small sample sizes.¹² In addition, several studies lacked a strong experimental design with control groups, which limited the generalization of their findings.¹³ Herefore, research investigating the effectiveness of the DeepL application within junior high school education, particularly in descriptive writing, remains limited.

The current study fills these gaps through a quantitative quasi-experimental design involving eighth-grade students at SMPN 2 Kademangan, this integration of DeepL AI as a direct learning tool, and an in-depth evaluation on students' writing ability through four aspects: content, organization, vocabulary, and grammar. Therefore, this study seeks to examine *The Effect of Using the DeepL Application on the Descriptive English Writing Ability of Eighth-Grade Students at SMPN 2 Kademangan. The results of this study are expected to can contribute to innovation in technology-based English language learning while strengthening theoretical understanding of how automatic feedback from AI applications can significantly support the development of students' writing abilities.*

B. Research Question

According to the background study which was discussed above, the research problem can be formulates as follows:

¹² Devi Sunita Mutia Asmara and Farida Repelita Waty Kembaren, "Students' Perception Towards the Use of DeepL Translator in Writing Thesis or Journal for English Education Students," *International Journal of Language Education and Cultural Review* 10, no. 1 (2024): 117–126.].

¹³ Reihayyu Dwi Cahyani et al., "EFL Students' Acceptance of DeepL Translation: A Technology Acceptance Model Study," *Journal of English Language Teaching and Linguistics* 10, no. 1 (2025): 599–610.].

“Is there any significant difference in writing ability between the students who are taught using the DeepL application and the students who are taught without using the DeepL application?”

C. Objective of the Research

According for the formulation of research based on the problem stated above, the objective of this research is “To determine whether there is a significant difference in writing ability between eighth-grade students who are taught using the DeepL application and those who are taught without using it.”

D. Formulation of Hypothesis

There are two formulated hypothesis of this study as follow:

1. Null Hypothesis (H0):

The difference is not significant in descriptive writing ability between learners who are taught using DeepL application and students who taught using the DeepL application and the students who are taught without using the DeepL application.

2. Alternative Hypothesis (H1):

The difference is significant in descriptive writing ability between the student who are taught using the DeepL application and students who are taught without using the DeepL application.

E. Significance of the Research

This study is expected to be able to provide both theoretical and applicable contributions to English writing teaching and learning process. The significance of the study can be seen from the following aspects:

1. For the Students

This study is intended to assist students in enhancing their ability to write English texts more effectively through the use of the DeepL application. By using DeepL, students can get prompt responses regarding grammar, vocabulary, and sentence organization. It also encourages them to learn independently, become more confident in expressing ideas in English, and reduce anxiety about making writing errors. Moreover, students will be more motivated to practice writing since technology making the process more interesting and interactive. *Etnomatematika*

2. For yhe Teachers

This study can be used as an alternative a guideline for teachers to integrate technology-based learning tools into writing instruction. By applying the DeepL application, teachers can save time in giving corrections and provide more accurate examples of good writing. It can also help teachers design more innovative, interactive, and student-centered writing activities emphasize not only the final outcome but also the writing procedure itself. The findings of this research may encourage teachers to use AI-assisted applications as effective media in EFL classrooms.

3. For the Reader

This research provides insight into how artificial intelligence applications, especially DeepL, can enhance students' English writing ability. For subsequent researchers, this research may function as a valuable guideline for conducting similar or extended studies in different contexts such as other language skills (speaking, reading, or translation), different education levels, or other AI-based tools. It also opens opportunities for further investigation into how students' attitudes, motivation, and self-efficacy influence their success when learning with AI-assisted writing support.

F. Scope and Limitation of the Research

1. Scope of the Research

This study focuses on investigating the effect of using the DeepL application on students' English writing skills. This study was conducted at SMPN 2 Kademangan during the 2025/2026 academic year. The participants were eighth-grade students, specifically class VIII A as the experimental group and class VIII B as the control group.

This study emphasizes the teaching and learning of descriptive text writing. Students' writing skills were assessed through four writing components: content, organization, vocabulary, and grammar. The DeepL application was used as a learning aid in the experimental class to support students in generating ideas, improving vocabulary choices, correcting grammatical errors, and constructing sentences more effectively.

2. Limitations of the Research

This study was limited to investigating the effectiveness of the DeepL application in improving students' descriptive writing skills. This study only involved eighth-grade students at SMPN 2 Kademangan, and therefore, the findings may not be generalizable to students at different educational levels or institutions.

G. Definition of Keyterms

In order to prevent confusion and to make the discussion clearer, several important terms used in this study is defined as presented below:

1. DeepL Application

DeepL is an Artificial Intelligence (AI)-based translation and writing support tool that uses Neural Machine Translation (NMT) technology for producing accurate and fluent translations. In this research, the DeepL application is used as a learning medium to help students improve their ability by providing instant feedback, grammar correction, vocabulary suggestions, and sentence structure improvement. It serves as the main independent variable (X) in this study.

2. Writing Ability

Writing ability refers to students' proficiency in expressing their ideas, thoughts, and information through written English in a clear, coherent, and grammatically correct manner. In this study, writing ability is assessed based across five components: content, organization, vocabulary, language use, and mechanics. This variable represents the dependent variable (Y) of the research.¹⁴

¹⁴ Jacobs et al., *Testing ESL Composition: A Practical Approach* (Rowley, MA: Newbury House Publishers, 1981).

3. English Texts

English texts refer to written compositions that follow the structure and language features of specific genres learned in junior high school, including descriptive, recount, and narrative texts. In this research, the focus is on descriptive texts, where students describe people, places, or things using appropriate vocabulary, grammar, and cohesive organization.

4. Students in the eighth grade of junior high school

Students in the eighth grade are learners in the second year at the junior high school level who are typically around 13–14 years old. In this research, they are the participants classified into two groups, with class VIII A serving as the experimental class (using DeepL) and class class VIII B functioning as the control class (without using DeepL). They are encouraged to enhance their ability to write descriptive English texts as part of the English subject in the 2013 Curriculum.