

# CHAPTER I

## INTRODUCTION

Chapter 1 explained why this research is important as a starting point for discussing this topic in more depth.

### **1.1 Research Background**

The ability to write is one of the demands in learning English. However, writing is also a skill that is quite difficult for high school students to deal with because it requires proper word choice, coherent information, and correct grammar (Sa'adah, A. R., 2020). Another several factors that affect students' writing skills; Reading comprehension, grammar knowledge, and previous writing instruction are the most influential components of students' writing skills in English as a foreign language (Lee, J., 2020). Because of this, a learning paradigm that is appropriate for the times and the issues that students are confronting is required. In this case, the use of tools is certainly something that needs to be considered. There are many ways and media used to support writing learning to facilitate students in learning. One of the media uses that is quite widespread today is the use of e-learning as an alternative media for students and teachers (Adwan, F. E. Al, & Awamrah, A. F. Al., 2019).

Since the creation of e-learning, or electronic learning, as a learning step to enable students to learn anytime, anywhere, the usage of mobile devices as one of the learning medium has started. Students may easily create adaptable, effective, dynamic, and engaging learning scenarios with the help of mobile-based learning, making the learning process more meaningful. As is known, English is a second

language for Indonesian students (Luckyardi, S., & Rahman, L., 2021). This is the background to implement a special learning model with several digital resources so that students can capture learning well because this is also related to students' motivation and attitudes in learning a language that is not their language.

Currently available digital resources that can help with writing include online dictionaries, grammar and spelling checkers, and search engines (Hromalik, C. D., & Koszalka, T. A., 2019). In this study, researchers used the DeepL application as a research object material that attracted the attention of researchers. This application is an application that works as other translation applications such as Google Translate, U-Dictionary, and others. The application attracted the attention of researchers because there is a new feature that other foreign language translation applications do not have and has adopted AI in its operation.

Today's educational problems can be solved by artificial intelligence, which is a component of information technology. Artificial intelligence is the application of computer programming to execute tasks that, from a human perspective, can be regarded as a way to enable computers to perform tasks that are now performed more effectively by humans. According to Prastiwi, C. H. W., & Pujiawati, N. (2019), Artificial intelligence (AI) is a branch of computer science that focuses on how well machines can mimic human behavioral intelligence. Artificial Intelligence (AI) enables computers to process large amounts of data and information quickly and efficiently, producing computer-based conclusions. The scope and implementation of Artificial Intelligence is very broad, including in the field of education (Chen, L., Chen, P., & Lin, Z., 2020). One of the main ways AI

will have an impact on education by implementing more tailored instruction (Tambuskar, S., 2022). A rising number of games, apps, and adaptive learning tools are already facilitating some of this. In general, the system facilitates students working at their own pace by adapting to their needs, emphasizing particular topics more, repeating concepts that students have not yet grasped, and more (Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F., 2019). AI tutors might provide extra assistance to students. In the future, more students may receive tutoring from tutors who exist solely in zero and one, even if there are undoubtedly some things that human tutors cannot offer that computers cannot—at least not yet (Masters, K., 2019). Several artificial intelligence-based tutoring programs already exist and can help students.

The application of artificial intelligence in education has grown, going beyond the conventional understanding of AI as a supercomputer to include embedded computer systems (Chen et al., 2020). AI has the potential to alter teaching. The function of the teacher in education will never go away, but new technology, such as intelligent computer systems, may alter the nature of that role and its responsibilities. As was previously mentioned, artificial intelligence (AI) can help students learn more effectively. But AI can also be applied to a wide range of other teaching-related tasks. Artificial intelligence (AI) systems can be designed to offer knowledge, act as a resource for students seeking information and asking questions (Aggarwal, D., Sharma, D., & Saxena, A. B., 2023).

Based on the results of interviews conducted at MAN Karangasem, the interview results show that the school has implemented the use of technology-based and conventional media, but the use of DeepL has never been carried out.

According to a teacher who teaches English lessons there, various technology-based media that have been used are one of the efforts to improve students' four English skills (listening, speaking, writing, reading). An example of the use of media used to improve students' listening skills is to use songs that have been listed in student textbooks. The song plays from the teacher's laptop connected to the output speakers. Usually, teachers get songs by downloading from the internet first. The teacher also revealed that usually once month students are invited to watch English films together in class to teach students to help students improve students' pronunciation skills. The use of AI itself is not commonly used in learning. In improving students' writing skills, teachers are not used to using technology-based media or AI. The use of machine translation is still used individually in the homes of each student. From the results of the interviews that have been carried out, teachers and students feel the need to apply the use of AI in English language learning. Therefore, this study needs to be done to see the comparison from before and after the use of AI in learning.

In this instance, the researcher desires to carry out study utilizing an experimental methodology that seeks to investigate the effect of the implementation of DeepL on learners writing skills. By applying several theories from experts and also the support from the condition of students at MAN Karangasem who also experience problems in learning to write, as well as the use of AI as a learning medium in schools, encourage the author to conduct further research.

## 1.2 Problem Identification

Based on the explanation above, there are several problems that faced by students when students acquire English as a second language, particularly for writing. Therefore, the problems are:

- a. The students felt less interested and lazy in writing activities in the learning process.
- b. The student finds it hard to understand grammar.

Through DeepL and based on the previous study, the use of DeepL can make the learning process more interesting which can increase students' attention in learning writing. In addition, by using DeepL, the student can check their sentences and correcting their grammar which can make the students easier in learning writing.

## 1.3 Problem Limitation

This research only focuses on implementing DeepL in English as Foreign Language to know the effect on the students in MAN Karangasem, especially their writing skills.

## 1.4 Research Question

Based on the research background explained formerly, this study aimed to address the following research questions:

1. Is there any significant effect of DeepL on eleventh grade students' writing skills at MAN Karangasem?
2. How is the response of eleventh grade students in MAN Karangasem on the use of DeepL in their writing skills?

### 1.5 Research Objective

The aims of this study are determined as the following:

1. To investigate whether there is an effect on the writing skill of eleventh grade students' in MAN Karangasem when using DeepL.
2. To describe the response of eleventh grade students' in MAN Karangasem on the implementation of DeepL during the writing learning process.

### 1.6 Research Significance

1. Theoretical significance

It is anticipated that the results of this study will be used to support previous research arguing for the use of DeepL in writing instruction.

2. Practical significance

- a. For teachers

It is anticipated that this research will serve as the new standard for English teachers using new technologies to help pupils write better.

- b. For students

Students are expected to have a new application reference as a learning medium used to support their English, especially in writing skills.

- c. For the future research

It is anticipated that other researchers will use this work as a reference, especially in EFL topics, especially in writing skills.