CHAPTER II
LITERATURE REVIEW

This chapter presents a theoretical framework, previous studies, conceptual framework and hypotheses.

2.1 Theoretical Framework

2.1.1 Definition of Writing

Writing is one of the skills taught in English classes. Writing helps ideas and concepts become obvious and real. Zamel claims that writing is a process of expressing who we are, what we have discovered, and how we create meaning. It also conveys deep knowledge about the ways in which we read, write, and use language (Zamel, 1982). Writing, in Nunan's view, is the result of thinking through ideas, considering effective ways to communicate them in writing, and arranging these thoughts into concise sentences and paragraphs (Nunan, 2003).

On the other hand, Keys argues that writing serves two distinct yet complimentary purposes. Writing is a talent that involves using strategies to achieve a purpose, such as creating reports or expressing viewpoints that are supported with facts. This is the first role of writing. These strategies include organizing, assessing, and rewriting the text. The second use of writing is to let students show off and expand their knowledge. Writing also serves as a tool to help students learn new material.

Writing also is an activity that can illustrate ideas and become a tool to get diverse information. Writing can bring many positive things to oneself and others. We can see this in surah Al-A'raf verse 154:

وَلَمَّا سَكَتَ عَن مُّوسَى ٱلْغَضَبُ أَخَذَ ٱلْأَلْوَاحَ وَفِي نُسْخَتِهَا هُدًى وَرَحْمَةٌ لِّلَّذِينَ هُمْ لِرَبِّهِمْ يَرْهَبُونَ ﴿١٥٤﴾

And when Musa' anger subsided, he took up the tablets, and he wrote on them guidance and mercy for the god-fearing.

According to the Muslim media (After his anger subsided, Musa) had calmed down, then he took back the slabs that had been slammed (and the writing on them) what had been written on the plates of the Bible (there is guidance) from misguidance (and mercy for those who believe in God) they fear God (Allah SWT), the letter Lam written in Ma'ful reminds the place of precedence (Suhendrik, 2016).

According to the passage, all writings books as well as inscriptions contain grace and direction regarding the truth, right and wrong behavior, manners and morals, knowledge of the law, and other topics. One of the objectives of writing, which calls for a methodical approach, is for the writer and others to gain from the writing. It demonstrates the significance of writing abilities for people to acquire in order to live better lives.

Also surah of Al-Alaq verse 4-5:

$$ ۞ عَلَّمَ ٱلۡإِنسَٰنَ مَا لَمۡ يَعۡلَمۡ ۞ ٱلَّذِى عَلَّمَ بِٱلۡقَلَمِ $$

Who taught (man) by the pen? He taught man what he not knew

This surah begins with the first message from Allah SWT. He is not directly teaching the human, but they are taught by another human being in whom Allah SWT is their ability to teach. The verses also explain to us that we need to write pen when studying. It specifically deals with the value of knowledge to man, since the success and status of his creation depends primarily on the knowledge he receives. For this, Allah has given the feeling of observation and thought to man. One gets the knowledge by different means. Reading and writing are two ways, specially pointed out here.

According to several of the definitions given above, writing is a process that allows students to express ideas and thoughts from what they have learnt. It is also

a strategy for achieving writing objectives and helping students gain deeper understanding.

2.1.2 Purpose of Writing

Grenville (2001) argues that writing provides three purposes:

1. To Amuse

Imaginative or creative writing is typically the format used for writing intended for entertainment. This implies that the author must demonstrate originality. The goal of writing is to provoke the reader's feelings, not necessarily make them laugh.

2. To inform

The goal of writing to inform is to educate the reader on a subject. This kind of informational writing may concentrate on things, locations, steps, and occasions. It appears in articles and newspapers, commercial or scientific reports, guidelines or manuals, and essays written for college and high school.

3. To convince

In order to get the reader to agree with and act upon the writer's position, the writer attempts to persuade the reader that a point of view is valid by providing facts or evidence.

According to Dalman (2014: 13) there are the purpose of writing:

1. Assignment Purpose

In general, students write an essay with the aim of fulfilling an assignment given by a teacher or an institution. This form of writing is usually in the form of papers, reports, or free essays.

2. Aesthetic Purpose

Writers generally write with the aim of creating beauty (aesthetics) in a poem, short story, or novel. For this reason, writers generally pay attention to the correct choice of words or diction and the use of language styles,

3. Information Purposes

   Newspapers and magazines are one of the media that contain writings with the purpose of lighting. The main purpose of the writer creating the writing is to provide information for the reader,

4. Purpose of self-declaration

   You may have made a statement not to commit any more offenses, or perhaps written a letter of agreement. If that is true, it means that you are writing with the aim of emphasizing what has been done,

5. Creative Purpose

   Writing is actually always related to the creative process, especially in writing literary works, be it in the form of poetry or prose. You have to use your imagination to the maximum when developing your writing, starting from developing characterization, describing the setting, and others,

6. Consumptive Purpose

   There are times when a piece of writing is completed to be sold and read by readers. In this case, the writer is more concerned with the satisfaction of the reader. The writer is more business-oriented. One form of this writing is popular novels by Fredy or Mira W., or others.

Based on some of the purposes of writing above, it can be concluded that the purpose of writing is not only as a provider of information that is often heard about the purpose of writing, but the purpose of writing is more than that. The purpose of writing is to entertain, to convince, to declare oneself and so on.

2.1.3 The Process of Writing

According to Harmer (2004), the writing process consists of the following four elements:

1. Planning

   Before anything else, writers should think about the information they will include, the language they will use, and the goal of the writing not just the kind of text they will produce. Then, in order to determine the language to use in their writing, skilled writers consider who will read their work.

Whether formal or informal language is employed. In addition, authors organize their arguments, thoughts, and facts in a logical manner.

2. Drafting

We refer to the initial draft of a piece of writing as a draft. There will be multiple drafts of our writing before the final draft, as editing is a part of the writing process.

3. Revising

Readers and editors can be helpful when it comes to reflecting or modifying because they offer advice and commentary on our work. Reader feedback in the form of comments and suggestions will assist writers in improving their work.

4. Final Version

Writers make the essential changes to their work in order to produce the final edition when they edit the draft. Because there have been many modifications made to the edited manuscript, their writing may now appear different from the original idea and draft, but it is still acceptable enough to be submitted to the intended reader.

There are four steps in the writing process according to Oshima Alice and Ann Hogue. The first is to create an idea. Second, establish the idea. Third, start writing through drafts. Finally, to perfect the writing in the draft, the thing to do is to revise the writing.

According to Dalman (2015), the writing stages are divided into three parts, as follows:

1. Prewriting Stage (Preparation)

This stage is the first stage, the preparation or prewriting stage is when learners prepare themselves, gather information, formulate problems, determine focus, manage information, draw inferential interpretations of the reality they face, discuss, read, observe, and others that enrich their cognitive input which will be processed further. In this pre-writing stage there are several activities, namely:

1) Determine the topic

2) Determine the meaning and purpose of writing

3) Pay attention to the target of the essay (reader)

4) Collect supporting information

5) Organize ideas and information

2. Writing Stage

In the writing stage we have determined the topic and purpose of the essay, collected relevant information, and made an outline, then ready to write. We develop the ideas contained in the outline item by item, by utilizing the materials or information that we have selected and concluded. As we know, the structure of the essay itself is the beginning, the content, and the end.

3. Postwriting Stage

This stage is the stage of refining and perfecting the blur that we produce. The activities consist of editing and revision. Editing is the examination and improvement of the mechanical elements of the essay such as spelling, punctuation, diction, capitalization, language style, recording decisions, and other writing conventions. Revision is more about checking and improving the content of the essay.

Based on some of the explanations above, the writing process begins with the preparation of the topic to be written, then writing related to the planned topic, then revising or editing the writing so that the writing becomes better.

2.1.4 Technology Enhanced Language Learning (TELL)

Technology Enhanced Learning (TEL) is defined as the use of information and communication technology in the teaching and learning process for educational reasons, according to Kirkwood and Linda (2014). The application of TEL offers an innovative viewpoint to the study of second and foreign languages. Furthermore, the impact of technology on foreign language acquisition is related to Technology Enhanced Language Learning (TELL), according to Yang and Yi-Jun (2007). TELL is thought to significantly improve language learning, according to study on English as a Second Language (ESL). Additionally, TELL enables computer-

mediated communication, or CMC, to result in more efficient communication (Patel, 2014).

According to Yang and Yi-Jun (2007), the use of TELL (Technology-Enhanced Language Learning) in an educational context can provide more flexibility in the learning process. It allows for better adaptation to students' learning styles, and can improve the fulfillment of their learning needs. TELL is also considered to provide a more comprehensive understanding of language compared to the use of traditional printed texts. Furthermore, TELL encourages a student-centered learning environment, which Jonnasen (in Bratt & Janet, 2007) believes can increase students' interest in English as well as the quality of their learning. According to Fatel (2014), TELL (Technology-Enhanced Language Learning) aims to improve students' language abilities by integrating different skills and sub-skills. Fatel also notes that theoretically, TELL reflects two significant dimensions. The importance of TELL lies in the development and enhancement of second language learning contexts. The technology not only supports the technical aspects, but also provides a strong conceptual foundation for optimizing students' learning process in a second language.

2.1.5 MT in Language Learning

Educational technology as work on field which engage in preparing facility human learning through investigation, development, organization, and utilization systematically all learning resources and through entire management process (AECT, 1977). Machine translation is one of the technology can use in educational fields. Machine translation (MT) can aid students with their writing; multiple research have revealed pedagogical benefits to using L1 in L2 writing. Ali and Alireza (2014) found that MT helped students write faster, more fluently, more naturally, with fewer errors.. As technology evolves, machine translation's accuracy in translating texts improves. However, because researchers and practitioners are still suspicious about its correctness and utility (Barr, 2013), sufficient amounts of empirical study on this problem have not yet been published to verify its instructional effectiveness (Lee, 2019). Machine translation has not yet been demonstrated to be reliable in translating texts, and it may be flawed. Furthermore,

MT promotes language learning primarily at the lexico-grammatical level, but not at the discourse level (Groves and Mundt, 2015).

Studies show that translation, particularly mental translation, occurs naturally in the L2 writing process and promotes L2 reading and writing skills while reducing cognitive load and increasing learner autonomy (Kim, 2011). Many prior researchers who examined MT focused solely on post-editing, although MT can be utilized as a learning tool to assist students with the text revision process. From the standpoint of L2 writing, MT can help students assess and edit their own written work (Baraniello et al., 2016). Writing or revising using MT can improve students' linguistic awareness (Lee, 2020), higher-order thinking skills (Yang & Wang, 2019), and encourage independent and self-directed learning (Garcia & Pe˜na, 2011).

It may be argued that, while MT is still regarded controversial due to conflicting findings from different research results, it nevertheless benefits learners in the language classroom. One of them is knowing how to utilize MT responsibly as learning tools in the text revision process, so that MT, which some argue has flaws in academic contexts, can demonstrate that it has positive effects when used correctly.

2.1.6 Neural Machine Translation

Neural-based machine translation is a relatively new technology that was first proposed by Google and the University of Montreal in 2014 (Lee et al., 2015). Since then, the accuracy of NMT has made significant progress in a short period of time, surpassing the commonly used statistical machine translation method (PBSMT) before 2016 (Lewis-Kraus, 2016). Fundamentally, the main difference between NMT and PBSMT lies in NMT's ability to translate based on the context of the whole sentence, rather than just based on sentence fragments as PBSMT does. In translation quality evaluation, the improvement of NMT is often measured using BLEU score, a metric that compares computer translation with human translation (Papineni et al., 2002). BLEU scores range from zero to one, where one BLEU point is considered excellent and two BLEU points are considered outstanding.

When Google first released NMT, there was a significant improvement in English-French translation, registering a stunning seven-point jump, which changed the landscape of WBMT (Lewis-Kraus, 2016). Although NMT showed a substantial improvement in accuracy, Google's Mike Schuster asserted that although NMT is better than previous machine translators, it is still not as good as human translation (Lewis-Kraus, 2016). Schuster added that Google's goal is not to replace the role of humans in translation, but rather to support human work. There are still pragmatic challenges faced by computers in understanding texts, as expressed by Peter Lepahin, a director of a leading Hungarian translation company, who highlighted the complexity of texts that contain multiple implied meanings and connotations (Keszthelyi, 2017).

While NMT is able to overcome some of the previous weaknesses of machine translation by translating the context of the entire sentence, human translation remains preferable due to its advantage in capturing the nuances of the language. However, NMT still faces challenges in dealing with rare and unfamiliar vocabulary, which often results in overly literal or imprecise translations (Tu et al., 2016). For this reason, language learners realize that while NMT has its advantages, its accuracy is not yet comparable to the quality of human translation.

2.1.7 DeepL Translator

DeepL is a translation engine introduced in August 2017, using Neural Machine Translation (NMT) to automatically translate text between two languages (Dressman & Sadler, 2020). It was developed by DeepL GmbH, a German company specializing in deep learning-based machine translation technology (Ganguli & Aggarwal, 2023). With the current technological advancements, machine translation has undergone an evolution from traditional methods towards NMT.

Generally, DeepL, as an example of NMT, offers automatic language translation features similar to other translation engines. However, compared to Google Translate, DeepL is considered more accurate in language translation (James, 2023). However, one of the disadvantages of DeepL is the limited choice of languages available when compared to Google Translate which offers more options. DeepL Translator has proven to be a powerful online translation app, using

artificial intelligence (AI) and artificial neural networks to improve translation accuracy and reliability (James, 2023).

2.2 Previous Study

In a study entitled *"The impact of machine translation on EFL students' writing"* by Sangmin and Michele Lee, the aim was to explore the role of machine translation (MT) as a tool for students learning English as a foreign language (EFL). The study involved students in the activity of translating texts from the home language (L1) to the target language (L2), where students then improved their translations using MT to compare the quality of the texts produced with and without the help of MT. The results showed that the use of MT significantly improved students' writing ability. Tests showed improvements in vocabulary, grammar, and expression, which contributed to the overall improvement of students' writing quality. Nevertheless, the study also identified some shortcomings in the use of MT, such as translation inaccuracy, literal translation, and students' potential dependence on the writing style of the home language (L1). Furthermore, the study noted that the function of MT in improving students' writing is similar to that of peer-editing, although not without drawbacks. Nonetheless, MT and peer-editing together can help improve students' overall writing strategies, although not to the level of perfection. (Sangmin & Lee, 2019).

Nuri Nadifhah and Nunung Fajaryani conducted a study entitled "*The Use of Google Translation by Students in Writing a narrative essay*." This study aims to investigate how third semester students of the English Education study program at Jambi University use Google Translate in the process of writing a narrative essay. The results showed that students used Google Translate mainly to solve vocabulary and grammar problems. The study also found that although Google Translate did not significantly improve the students' writing skills, the use of this tool could make them more independent in the writing process. Students feel that they can work independently without depending too much on the help of friends or lecturers, so the writing process becomes easier to do (Nadifhah & Fajaryani, 2022).

Petra Polakova and Blanka Klimova conducted a study entitled *"Using DeepL translator in learning English as an applied foreign language - An empirical pilot*

study". The purpose of this study was to explore the use of DeepL Translator in the process of second language transfer, which is considered to have great potential in the transformation of foreign language education. This empirical pilot study involved experimenting with the use of neural machine translation to write formal summaries in a foreign language. Sixteen students learning English as an applied foreign language with C1 proficiency participated in the study. The results showed a significant difference between the pre-test and post-test results, as well as an improvement in language proficiency after using DeepL Translator. In addition, a questionnaire survey also showed that students had a positive perception of using DeepL Translator and realized an improvement in their language skills after using the tool (Polakova & Klimova, 2023).

Muh Khoirun Nur Zaini conducted a study entitled *"Impact of Mobile Translation Usage on EFL Students in Academic Writing Courses"*. This study aims to investigate the pattern of mobile translation usage on EFL students' academic writing skills. The study focused on the impact of mobile translation usage both in the short and long term. This research used a case study design involving 6th semester EFL students at UIN Walisongo in 2023. Data were collected through direct interviews with students and observations of academic writing practices using mobile translation. The results showed that although there were some positive impacts such as faster completion of writing assignments, the negative impacts experienced by EFL students were more dominant. These negative impacts include the tendency to become lazy in studying and dependence on mobile translation, which in turn can reduce their English learning ability (Zaini, 2023).

Eun Seon Chung and Soojin Ahn conducted a study entitled *"The Effect Of Using Machine Translation On Linguistic Features In L2 Writing Across Proficiency Levels And Text Genres"*. This study investigated the impact of learners' use of machine translation (MT) on linguistic features (CALF) in second language (L2) writing, using automatic evaluation by computation as well as assessment by human raters. The study also explored whether learner proficiency level and text genre affect MT use. Analysis of student-written texts showed a significant improvement in accuracy, although there was no clear increase in

syntactic and lexical complexity. It was found that the use of MT provides different benefits and challenges depending on proficiency level (high versus low) and text genre (narrative versus argumentative). A survey of students' responses showed that they were very satisfied with the use of MT and planned to reuse it in the future, although they also recognized its limitations (Chung & Ahn, 2021).

The difference from some previous studies to this research is that some previous studies did not examine DeepL Translator and there are some studies that only focus on the perception of the use of machine translation or only focus on whether there is an effect on the use of machine translation seen from writing results. This study analysis the perception from the students after using DeepL translation on their writing also the effect on the use of DeepL Translator seen from writing results. So, this study get deeply result by combine quantitative and qualitative data.

2.3 Conceptual Framework

Writing is one of the aspects that must be mastered in learning English. In reality, there are still many errors in students' writing. EFL students need something that can help in the writing process to reduce errors in their writing. Digital technology takes a role in education nowadays. English learning can also utilize technology to facilitate learning, one of which is writing.

Learning tools are one of the digital technology-based tools that are expected to help students reduce errors in their writing. DeepL Translator is an online translation application that uses Artificial Intelligence (AI) as well as the presence of artificial neural networks that function to translate more precisely and reliably. DeepL Translator is one of the learning tools that is expected to help students improve their writing.
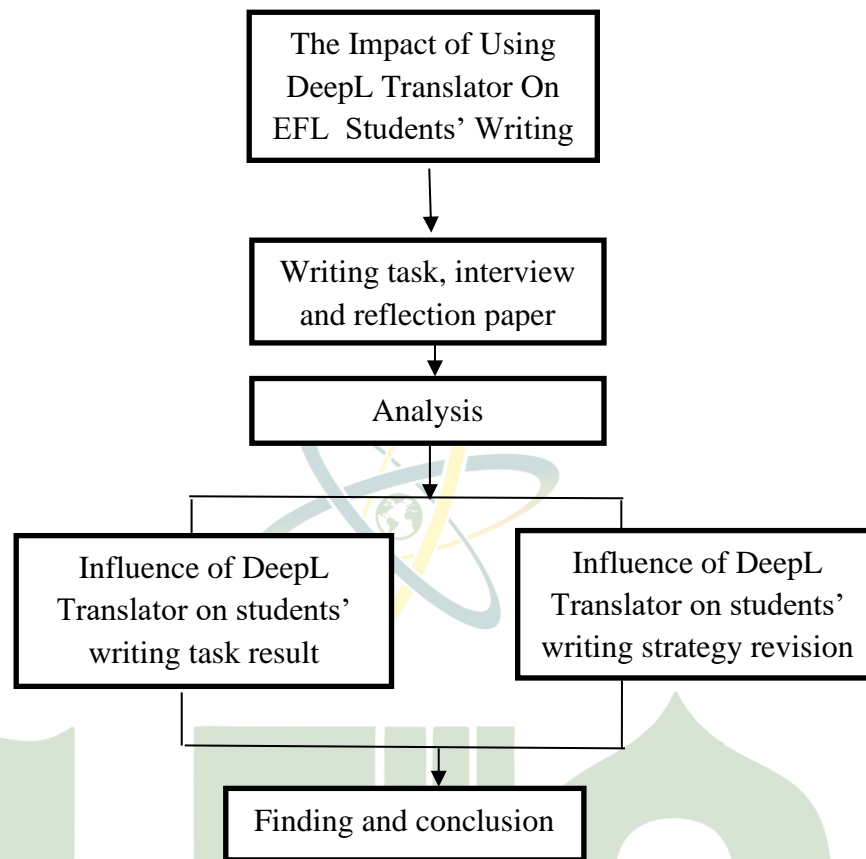
Figure 3 Conceptual Framework

2.4 Hypothesis

Based on the related studies above, the researcher proposes the hypothesis for this study as follows:

1. Null Hypothesis (H_0) : There is influence of using DeepL Translator application on the students' writing.
2. Alternative Hypothesis (H_a) : There is no influence of using DeepL Translator on the students' writing.