

CHAPTER I

INTRODUCTION

This chapter covers six areas relevant to this research. This includes the research background, research question, research objective, scope and limitations, significance of the research, and the definition of key terms.

A. Background of the Research

Translation activities and requests are something that is always needed from time to time. According to Catford (1965), translation is the replacement of textual material of one language with equivalent textual material of another language. In other words, translation involves replacing the source language text with the target language. Moentaha (2008) argues that translation as a transition between languages is a symptom that has attracted the attention of experts in several scientific fields: psychology, ethnology, literature, and linguistics. Translation is necessary as a bridge to present a nation's culture and is the activity of conveying the author's message or intention from one language to another. In this era, many translators use technology to support translation activities. The creation of a translation machine that makes translation work is called machine translation.

There are currently many machine translations (online translation) that offer online translation services (Chan, 2014). This feature involves translating sentences on a webpage or application by simply clicking the mouse (Sin-wai, 2016). Machine translation is the process of using artificial intelligence to automatically translate text from one language to another (Pudjiati et al., 2022). Online translators use technology to translate large amounts of text to and from supported languages. The service translates "source" text from one language to a different "target" language. Translation in this way has advantages such as the practicality of use, fast results, and low costs. However, translation between distant languages constitutes a

challenge for machines. The application can easily change and translate the sentences or texts that we want into a language that we can understand.

Google Translate is very easy to use and many different languages can be translated. Google Translate generates a translation (Kerr, 2014). Google Translate is Google's free service to instantly translate words, phrases, and web pages between English and over 100 other languages (Brown, 2017). Google Translate, <https://translate.google.com/>, provides a ready-to-use interface for translations (Rothman & Gulli, 2022). Google Translate is one of the popular applications for translation. This service is available as a web version and an application that can be downloaded on iOS and Android. This application is even able to translate, not only in the form of text but also in written photos, handwriting, direct conversation sentences, to voice. Besides, Google Translate is not the only translation tool. There are other alternative translator applications and sites that can be an option for us (Fitria, 2021). Like Google Translate, application software from Microsoft can be used. We can translate words and phrases as needed. It also can translate text completely from one language to another.

Maybe many people do not know that the Word application created by Microsoft can translate from one language to another quickly. The Microsoft Translator program itself has been integrated into various products and services, such as Microsoft Word. Directly, we can translate the articles we want into Microsoft Word without the need for additional applications. Microsoft Word most popular program in Microsoft (Piko, 2018). Microsoft Word is a word processing application developed by Microsoft which was first released on October 25, 1983. This application is certainly no stranger to the public because of its advantages in helping to complete school assignments, lectures, or other general tasks. Microsoft Word is a word-processing application program that is often used (Nurhakim, 2015). With its features that help work productivity, many people are taking advantage by continuing to use Ms. Words.

Besides Google Translate and Microsoft Translator, there are also other online translators such as DeepL Translator. DeepL is a new machine

translation engine introduced in August 2017 that uses deep learning and NMT to automatically translate between two languages (Dressman & Sadler, 2020). It is a Neural Machine Translation Service created by DeepL GMBH, a German company that specializes in the development of deep learning-based machine translation technologies (Ganguli & Aggarwal, 2023). In terms of the languages it supports, DeepL is considered more accurate than Google Translate. Compared to Google Translate in several aspects: Translation accuracy, Context understanding, Target language fluency, technical term handling, and Consistency. This claim comes from DeepL itself, DeepL translate has fewer language options and is more expensive. DeepL Translator has managed to differentiate itself by providing more accurate and natural translations compared to many other translation tools. DeepL Translator is an online translation application that uses Artificial Intelligence (AI) and artificial neural networks to provide more precise and trustworthy translations (James, 2023).

Machine translators play an important role in the task of translating. These free machine translators always help translators to have good results in the translation from the source language to the target language. Especially when we need online machine translation to replace the required foreign language, there is no need to bother translating word by word from a foreign language. Machine translation has a huge impact on teaching English as a foreign language (EFL). Because English learners already use machine translation to perform everyday tasks such as translating and writing. Translations produced by machine translators often contain unnatural phrasing and obvious translation errors, and students do not always have a high level of confidence in machine translations (e.g., Niño, 2009). However, as the level of machine-translated text increases, it is natural that more and more English learners will rely on machine translations such as DeepL and Google Translate.

One of the most important aspects of translation in English is grammar. According to Howard Jackson (2005), grammar is: 1. The subjects we use in the language we speak and write as a result of acquiring or learning the language 2). Grammar is a set of rules, conventions, and

principles that we store ("internalized") in our heads, with exceptions 3). Grammar is a set of descriptive words expressed in suitable words ('encoding') and in a coherent way (theory or model), which we use to calculate 'grammar' in Figures 1 and 2. For example, in addition to word choice, whether the changed product is good or not can also be determined by the grammatical structure of the sentence. Hambaly (2012) states that complete grammar in the text can help the reader easily understand the meaning of the text, otherwise, grammar or incomplete grammar in the text can sometimes confuse the reader in understanding the written message.

Grammar is one of the most important things when translating. When learning English as a second language or a foreign language, it is important to learn the grammar of the language because the level of grammar is very important in the translation process. Many students rely heavily on the use of two dictionaries when faced with an ambiguous problem. Words and phrases. Therefore, to provide a grammatical definition, the translator must take into account grammatical changes to ensure reliability, acceptability, rationality, readability, and understandability. Although some people make grammatical errors when translating because they think they are changing the grammar of the target language to ensure reliability and readability, the results of their translations are not normal and confuse moderators in finding the meaning.

One of the contents in academic writing (thesis, dissertation, scientific paper, paper, report, journal, and article) is an abstract. Such articles in journals always begin with an abstract. It is a summary of a research article, thesis, or review and it is often used to help the reader quickly ascertain the paper's purpose. An abstract may act as a stand-alone entity instead of a full paper. The typical length of abstract ranges from 100 to 500 words, but rarely more than a page. The purpose of the abstract is to give a general view of the thesis, and paper, to the readers. However, for those whose educational background is not in the English department, it would be a problem with the authors' article.

An abstract is a brief summary of the most important points in a

scientific paper. Day (1998) states that an abstract is a mini version of the paper. Abstracts enable the writer/translator to stay current with the huge volume of scientific literature. It is a brief summary of a research article, thesis, review, conference proceeding, or any in-depth analysis of a particular subject and is often used to help the readers quickly get the paper's purpose. An abstract always appears at the beginning of a manuscript or typescript.

Concerning this study, the authors reviewed several authors' abstracts in the journal LENSA (Lentera Sains): Journal of Science Education, which is Indonesian. This analysis is focused on analyzing the grammatical analysis of abstracts in LENSA (Lentera Sains) Journal: Journal of Science Education by using descriptive qualitative to describe the translation results from Google Translate and DeepL with the results that have been translated by the two machine translators, then the results are validated by experts in the field of translation who are qualified such as having a translation certificate, translation lecturer, interpreter and freelance translation (lokabahasa.com) While the abstract chosen by the author, the author chooses a few sentences from the five abstracts selected because it uses random sampling, and the researcher uses object abstracts in LENSA journals, there may still be errors because this journal has not been accredited by SINTA, and the abstracts selected are categorized as the latest published in LENSA journals.

Based on the analysis of the problem, the purpose of this study is to evaluate the performance of Google Translate and DeepL in maintaining grammatical accuracy when translating some abstract sentences of Indonesian articles into English and to find out the strengths and weaknesses of each translation tool in handling specific grammatical issues such as proper verb tense, verb-subject alignment, and sentence structure.

B. Research Questions

1. How do Google Translate and DeepL differ in translating grammatical analysis?

2. What are the strengths and weaknesses of each?

C. Research Objective

Based on the problems of the research above, this research is conducted to describe the difference in translating grammatical analysis between Google Translate and DeepL and to describe the strengths and weaknesses of each.

D. Scope and Limitation

Based on the background of this research, it is important to state the scope and limitations of this analysis. This research focuses on finding out the differences between Google Translate and DeepL in translating several sentences on abstract articles that have been taken from *LENSA (Lentera Sains): Jurnal Pendidikan IPA*. Meanwhile, this research has limitations because it only focuses on two translation tools, namely Google Translate and DeepL.

E. Significance

The findings of the research are likely to be valuable both theoretically and practically.

1. Theoretically

It is anticipated that this research will improve understanding of English, particularly concerning software-translated literature. It will make it easier to comprehend the meaning or message contained in news texts as well as any potential translation problems.

2. Practically

It is hoped that the results of this research will benefit the field of linguistics, language learners, or translation practitioners.

a. Writers

This research is important and useful because it provides a valuable experience that can be used as a provision for future

writers, teachers, and linguists. This research specifically focuses on the feature comparison between Google Translate and DeepL in abstract translation.

b. Readers

This research helps everyone learn and understand more about translation tools, which can assist readers in determining which tools are suitable for use. About translation tools, which might assist readers select which tools are suitable for use.

F. Definition of Key Terms

To avoid misunderstanding some terms used by research, the key terms are defined as follows:

1. Translation:

Translation is the replacement of textual material in one language (SL) by equivalent textual material in another language (SL), or transferring the main thinking or idea from one language to another language. The basis of translation is the change of the form.

2. Machine translation

Machine translation is the process of using artificial intelligence to automatically translate text from one language to another without human intervention.

3. Google Translate

Google Translate is a free statistical multilingual machine-translation service provided by Google Company to translate written text from one language into another. Google Translate is a free translation service that provides instant translations between dozens of different languages. It can translate words, sentences, and web pages between any combination of our supported languages.

4. DeepL

DeepL is a free statistical multilingual translation engine

provided by the German company DeepL GmbH for translating written text from one language to another. DeepL is a free translation service that provides instant translation between dozens of different languages. The service can translate words, sentences, and files.

5. Grammar Analysis

Grammar analysis is the system and structure of language. Grammar rules help us know word order and when to use so-called parts of speech, and each has its function.

6. Abstract

An abstract is an inseparable part of scientific writing, like a thesis, article, journal, etc. Abstracts may be defined differently, depending on what kind of academic writing the abstract are written for.