

CHAPTER II

LITERATURE REVIEW

A. Theoretical Framework

1. Perception

a. The Nature of Perception

Etymologically, perception comes from the Latin word *perception*, which means taking or receiving (Sobur, 2003).

According to Walgito (2004) perception is how a person understands and interprets information with the five senses.

However, perception does not only depend on the stimulus received by the five senses, but a person's experience, knowledge, and way of thinking also play a role in influencing how a person perceives information (Walgito, 2004; Wang, Hahm, et al., 2022).

Thus, each person can have a different perception of something depending on how they capture and process (Wang, Hahm, et al., 2022).

Perception can be divided into two types, namely positive perception and negative perception. According to Khotimah et al. (2021), positive perception is an attitude that encourages a person to be more confident, makes a person able to survive in difficult situations, and cares more about others. Meanwhile, negative perceptions tend to make a person selfish, too focused on

themselves, and always wanting other people's validation of their abilities (Khotimah et al., 2021).

b. Factors that Influence Perception

According to Walgito (2004), in understanding and interpreting information, stimulus is not the only factor that influences how a person determines his perception. The following are factors that influence perception according to Walgito (2004):

- 1) Perceived Object. The stimulus received by the sensory organs and receptors can be generated by an object. Most of the stimulus comes from outside the individual, although the stimulus can arise from within a person. The relevance of this research is that this research will relate the perceived object to DeepL as a tool in English translation.
- 2) Sensory Organs, Nerves, and Nerve Centres. Sensory organs and receptors play a role in receiving stimuli. Then, the sensory nerves play a role in delivering the stimulus to the brain as the nerve centre for further processing. The relevance of this research is that this research will use this indicator to see how easy it is to use DeepL as an English translation tool.
- 3) Attention. The first step to realizing perception requires attention. Attention is how a person concentrates on an object. This research will use the attention indicator to see the

challenges and advantages of DeepL in helping English translation.

These factors influence how a person perceives information. Each person can have different perceptions depending on how these factors affect them (Wang, Hahm, et al., 2022). Therefore, this perception theory is used as a foundation to analyze students' perceptions by looking at how they perceive, evaluate, and value the use of DeepL in English translation.

2. Translation

a. The Nature of Translation

Translation is the process of transferring the language of a text from the source language to the target language without changing the original meaning (Newmark, 1988). According to Usmonova et al. (2022), translation is not merely translating a text word for word, but conveying meaning and cultural context must be done to avoid changes in meaning and ensure the accuracy of the translation. The purpose of translation is to bridge the differences between two languages and cultures so that the message can be easily understood in the target language (Sun, 2022).

Thus, translation is not only a matter of transliteration, but the meaning conveyed must also be preserved.

b. Students' Difficulties in Translation

In translation, lack of vocabulary is one of the difficulties faced by students in producing effective translations (Arono et al., 2019; Pratiwi et al., 2022). Lack of vocabulary refers to students' lack of knowledge of vocabulary in the target language, which can hinder them in translating. According to Pham et al. (2022) English students also often experience difficulties in translation due to a lack of vocabulary, which negatively affects their translation process. This limitation hinders students in translating words or sentences as well as understanding the text (Machfudi, 2022). Therefore, it is important to choose the right tools that can help with these difficulties (Wulandari, 2023).

The relevance of this study is that this study will look at students' perceptions of DeepL as a translation tool in helping the problems experienced in English translation.

c. AI for Translation

Artificial Intelligence (AI) is a system that is able to mimic or even surpass human abilities in performing certain tasks (Russell et al., 2016). In the field of translation, AI, especially neural machine translation, has brought great changes (Wang, Wu, et al., 2022). Neural Machine Translation (NMT) is an approach in machine translation that uses neural networks to

automatically translate text from one language to another (Stahlberg, 2020). Wang, Wu, et al. (2022) also explained that Neural Machine Translation (NMT) produces more accurate and natural translations.

An example of an AI-based translation tool that uses Neural Machine Translation technology is DeepL (Polakova et al., 2023). DeepL has advantages in speed and its ability to produce more accurate and natural translations, so it can be an effective choice in assisting translation (Bunga et al., 2024).

The development of AI, especially Neural Machine Translation (NMT), has had a positive impact on the field of translation due to its advantages. The relevance of this research is that this research will examine DeepL as the main object, which is an example of an AI-based translation tool in assisting English translation.

d. Challenges of using AI for Translation

Although artificial intelligence has brought great changes in translation, it still has its challenges (Shahmerdanova, 2025).

Here are the challenges in using AI for translation:

- 1) Idioms, metaphors, and phrases whose meanings depend on context are still difficult for AI translation tools to understand, as without sufficient contextual understanding, AI systems can misinterpret these terms, which impacts the

accuracy and clarity of the translation (Shahmerdanova, 2025).

- 2) Translation results from AI-based translation tools sometimes deviate from the original meaning because AI-based translation tools still often have difficulty understanding the context in translation (Shahmerdanova, 2025; Wang, 2023)

This research will relate the challenges of using AI-based translation tools to the students' perceptions of the challenges they may face when using DeepL, which is an AI-based translation tool for English translation.

3. DeepL

a. Definition of DeepL

DeepL is an AI-based translation tool created by Jarek Kutylowski in 2017. DeepL uses neural machine translation technology that applies deep learning methods, so it is known for its accurate translation results (Mutia et al., 2024). DeepL is known can produce more accurate translations than other translation tools with attention to accuracy, fluency, and naturalness (Linlin, 2024). Supported by the opinion Bunga et al. (2024), this explains that DeepL produces accurate and natural translations. Besides accuracy, DeepL also has other

advantages. Bunga et al. (2024) explained that DeepL has the ability to translate text quickly. Mahardika (2017) stated that students are more comfortable and enjoy translating using machine translation software. This convenience is also felt by DeepL users because of its advantages. These advantages make DeepL a leading translation tool that making DeepL the first choice for users such as university students (Polakova et al., 2023).

b. Advantages and Disadvantages of DeepL

In its use, DeepL has advantages and disadvantages. Firda et al. (2025) mentioned some of the advantages and disadvantages of DeepL, including:

1) Advantages:

- a) DeepL has good translation accuracy and quality. The translation results that DeepL has are considered accurate and appropriate.
- b) DeepL can produce translations quickly, saving translation time.
- c) DeepL is a user-friendly tool that is easily accessible on various devices.

2) Disadvantages:

- a) In using DeepL, there are still concerns about dependency that can reduce the language skills of users.
- b) DeepL still has difficulty in translating idioms and very specific sentence structures, even though it is considered to have a high translation quality.

The advantages and disadvantages of DeepL can be a factor that influences students' perceptions of DeepL for English Translation.

c. Use of DeepL

DeepL is one of the translation tools frequently used by students to support their academic activities, particularly for translation purposes. The DeepL application can be downloaded on various devices such as Windows, iOS, and Android, and can also be accessed directly through its official website at <https://www.deepl.com/translator>. DeepL offers several source languages and target languages that can be selected via the drop-down menu provided. To perform a translation, users simply need to enter the text they wish to translate into the text box on the left side of the interface, and the translated text will automatically appear in the text box on the right side of the interface. After the translation is generated, users can verify the

accuracy of the meaning and contextual appropriateness. Users can select alternative translations offered by DeepL by clicking on the text they feel is less appropriate. After confirming that the translation generated by DeepL is appropriate, users can copy the text and use it as needed. With its ease of use and the quality of its translations, DeepL has become one of the preferred translation tools used by students to support their academic activities (Firda et al., 2025).

In this study, the ease of use of DeepL can affect students' perceptions of DeepL in English translation according to the perception indicator, namely sensory organs, by assessing how students perceive the ease of accessing and operating DeepL through their sensory organs.

B. Previous Study

Several studies have examined learner perceptions regarding the use of translation tools to translate English texts. The following are some studies that are relevant to the researcher's study.

Mastang et al. (2024) investigated the perceptions of students in the English Language Teaching Program at the Faculty of Tarbiyah and Teacher Education, Datokarama State Islamic University Palu, regarding the use of Google Translate as an English translation tool. This study was conducted using a descriptive qualitative method. The results of the study indicate that students perceive Google Translate as a practical and efficient

translation tool, particularly for supporting English language learning and academic assignments. However, they also acknowledge that Google Translate has limitations, especially in terms of translation accuracy and context, so it should be used wisely and cannot be entirely relied upon.

Meanwhile, Sidiq et al. (2024) used descriptive quantitative methods to explore students' perceptions of using DeepL to translate English texts, particularly first-semester physical education students at Bengkulu University who were taking English classes. The results of this study indicate that students have a positive perception of using DeepL for translation because it is easily accessible, fast, and effective. However, students need to double-check their translations because they are aware of DeepL's limitations in terms of accuracy and context. This suggests that DeepL aids the learning process but should be used wisely because it still has limitations.

★ Laksana et al. (2024) investigated the perceptions of EFL learners from various educational levels (junior high school, senior high school, bachelor's degree, master's degree, and doctorate) regarding the use, usefulness, and shortcomings of DeepL using mixed methods. The results indicate that DeepL is considered an accurate, time-saving translation tool that can be used to support English language learning. However, there are concerns about the potential for dependency in its use.

This study also examines EFL students' perceptions of translation tools. Based on previous research, differences in translation tools and

research subjects create a gap for this study. Previous research focused on Google Translate or examined the perceptions of non-English language students and EFL learners from various educational levels toward DeepL for translating English. Therefore, this study aims to fill this gap by focusing on exploring the perceptions of English Education Program students at one of the universities in Purwokerto toward the use of DeepL in English translation and their perceptions of the challenges they face when using DeepL.

