

## THE INTEGRATION OF GOOGLE TRANSLATE AS A MACHINE TRANSLATION AID IN EFL STUDENTS' THESIS COMPOSITION

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### Abstract

This study aims to examine the integration of Google Translate as a machine translation tool in the EFL students' thesis writing process. Framed within the explanatory sequential mixed methods, the study utilized a survey and an open-ended interview. Using a purposive sampling technique, this study included fifty EFL students in North Bali, Indonesia, in the survey and five students voluntarily in the interview session. Measured using the Gregory Formula, content validity results from the two raters showed that the survey and interview guide were valid (.1) and reliable ( $\alpha=.809$ ). The survey data were analyzed using Ideal Mean Score analysis and the interview transcripts data were analyzed using Interactive Model analysis. Results reveal that Google Translate benefited the students in the thesis writing process. The interactive model analysis resulted in main themes of the strengths, comprising sub-themes of functions and features of Google Translate and weaknesses, involving sub-themes of contextuality, grammar accuracy, and academic integrity issues. It can be concluded that the use of Google Translate can be helpful in assisting students' thesis writing with several considerations.

**Keywords:** EFL students, Google Translate, machine translation, thesis writing

### Introduction

Several problems are often met as challenges during thesis writing process by undergraduate students. The complicated interplay among psychological, sociocultural, and linguistic factors renders thesis writing a formidable challenge for non-native English learners, and thereby underscoring the complexity in this academic process (Dwihandini et al., 2013; Pramerta et al., 2023). Lestari (2020) highlights that lack of English proficiency is also one of the challenging factors when EFL students write their thesis. Other than these, problems encountered during the process of writing a thesis can include students' ability to perform argumentative writing (Maharani & Santosa, 2021) grammar and tenses issues, lack of references, and inability to arrange their idea into a good coherence of writing (Fareed et al., 2016; Komba, 2015). Other studies also highlight the hindering phenomenon that students find difficulties in arranging a good writing

product due to lack of vocabulary (Aitchison & Lee, 2006; Fareed et al., 2016; Husin & Nurbayani, 2017; Maznun et al., 2017).

Students' lacks of vocabulary inevitably give a big impact to students' writing product. This deficiency in vocabulary impedes their ability to effectively articulate and communicate their ideas in their thesis writing process. In this regard, inappropriate words used in a writing will influence the whole quality of writing product. As in writing an academic report, all arguments, ideas, presentation and interpretations of the information in the report should be clear (Brotowidjoyo, 1997), EFL students will seek for assistance, including technology assistance (Santosa et al., 2022), when they face impeding issues related to English vocabulary. To solve vocabulary problems in the EFL context, students tend to utilize available translation tools to find proper words for their writing. One of the popular machine translation tools is Google Translate, which has been established for some years with continuous improvement throughout time.

To use Google Translate, students only need to enter their original words, phrases, or sentences to be translated and the translation result in the target language will appear in the two-sided column in the platform. Hence, it can provide students with proper words, phrases, or sentences faster. At the moment, the platform can accommodate a maximum of 5,000 words. Chandra and Yuyun (2018) argue that the use of Google Translate assists the students in solving several problems, such as checking phrases, spelling, and translation of their sentences much faster. For EFL students, Google Translate can indeed be a helpful tool for learning English. Some studies have evidenced that this tool is beneficial to assist students (Alhaisoni & Alhaysony, 2017; Nguyen, 2023; Xu, 2021) and help them to be more independent (Alharbi, 2023). Google Translate emerges as preeminent online translation tool, renowned for its unrestricted accessibility and automatic functionality (Marito & Ashari, 2017). Its widespread adoption among students is a testament to its practicality and efficiency in facilitating multilingual comprehension. Medvedev (2016) emphasizes its potential among students by highlighting its ability to seamlessly translate multiple languages within a single application, while providing related words, thus offering valuable alternatives for translated language components. Such features unequivocally expedite the translation process, providing valuable assistance to students, especially those navigating EFL contexts (Iwai, 2011). Si (2019) further reinforces the point that students from non-native English-speaking countries, like China and Indonesia, utilize Google Translate frequently as it serves as an indispensable resource in overcoming language barriers and enhancing learning outcomes.

Despite its potential and benefits, Google Translate also has some limitations. One obvious minor feature of the platform is accuracy of the translation. In this respect, while Google Translate is improving, it might still produce some incorrect grammar and sentence structures, especially for languages with significantly different syntax from English. This is particularly evident in its tendency to translate words and phrases in a literal manner, disregarding the broader significance and context of entire sentences. As a consequence, inaccuracies may take place in the translation results, especially within multiple meanings of words, idiomatic expressions, cultural contexts, and longer sentences (Murtisari et al., 2019). Chandra and Yuyun (2018) emphasize that while some

words may indeed be contextualized, it remains imperative to acknowledge the limitations of this platforms in comprehending nuanced contexts. The issue of grammar accuracy must also be considered when using the tool (Chandra & Yuyun, 2018; Chompurach, 2021; Krisnawati, 2017). It is recommended that while Google Translate serves as a valuable resource for translation, a careful check using human intelligence must be conducted to ensure relevance to the contexts.

In the context of thesis writing, some students are found to use the tool to help their academic writing for quick translation. A preliminary short survey was conducted by the researchers to 100 EFL students in North Bali, Indonesia, and the results showed that around 73.3% students utilized the tool for their activities with English as the target language being studied. Particularly in the context of thesis writing, they also used it to help understand the target language into their native language and used it to translate from the native language to the target language. Some admitted to see inaccuracies in terms of grammar and meaning, especially in contextual and specific terms, but still used Google Translate as a basis for their work. Considering the interesting phenomena regarding the potential and drawbacks of employing Google Translate within the English academic activities, like thesis writing, this study aims to examine EFL students' integration of Google Translate in their thesis writing and how they view the integration in their thesis composition process. The presents study would contribute to the effective and meaningful utilization of machine learning aid, like Google Translate, for non-native English learners in accomplishing their academic writing tasks.

## **Method**

The study utilized an explanatory sequential mixed-methods design, which involves initially gathering and analyzing quantitative data followed by qualitative data to provide deeper understanding (Creswell, 2014). Through purposive sampling, specific criteria, involving EFL students working in the thesis writing stage and voluntariness, were established to select participants for the current research (Ary et al., 2010). Fifty EFL undergraduate students working on their theses participated in this study, with an additional five volunteering students for interviews. Two instruments, a perception survey and open-ended interviews, were employed, both developed based on perception theory (Robbins & Judge, 2013). A content validity check for the survey and the interview guide, assessed using the Gregory Formula with two raters, indicated high validity (.1) and high reliability ( $\alpha=.809$ ).

The survey was administered online, and the received data were analyzed using ideal mean score analysis to gauge students' perceptions on the integration of Google Translate during their EFL thesis writing process. There were 12 questions formulated in the questionnaire. Each statement measured with five responses in the form of Likert-scale, namely Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), Strongly Disagree (SD) (see Appendix 1). The results of the questionnaire were analyzed by using ideal mean score analysis, which calculated the scores of the Ideal Mean (Mi) and the Ideal Standard Deviation (Sdi). From the 12 statements, the maximum score of the Likert scale was 60 and the minimum was 12. From the Mi formula calculation, the Mi score

was  $\frac{1}{2} (60+12) = 36$  and the Sdi score was  $\frac{1}{6} (60+12) = 12$ . To categorize the undergraduate EFL students' perception on the use of Google Translate in thesis writing, the researchers inputted the Mi and Sdi into the criteria of the Ideal Mean Score as seen in Table 1.

Table 1. Categorization criteria

No.	Criteria	Interval	Categorization	Qualification
1.	$Mi + 1.5 SDi < M < Mi + 3.0 SDi$	$48 < M < 60$	Very high	Very positive
2.	$Mi + 0.5 SDi < M < Mi + 1.5 SDi$	$40 < M < 48$	High	Positive
3.	$Mi - 0.5 SDi < M < Mi + 0.5 SDi$	$32 < M < 40$	Average	Neutral
4.	$Mi - 1.5 SDi < M < Mi - 0.5 SDi$	$24 < M < 32$	Low	Negative
5.	$Mi - 3.0 SDi < M < Mi - 1.5 SDi$	$12 < M < 24$	Very low	Very negative

From the categorization criteria in Table 1, the qualification of the data is divided into five qualifications, namely very positive, positive, neutral, negative, and very negative. The positive qualifications show that students view Google Translate as a helpful machine translation tool for the thesis writing while the negative classifications highlight a contrastive perspective held by the students. Meanwhile, the neutral qualification reflects an open viewpoint necessitating further investigation for comprehensive understanding.

The qualitative data were gathered through interviews, conducted via WhatsApp voice notes with the voluntary participants (see Appendix 2). There were five respondents who voluntarily participated in the qualitative data gathering process, coded as S1 to S5. The interview guide was generated based on the results of the questionnaire and it contained several questions related to the strengths and weaknesses of Google Translate. The data were analyzed using an interactive model analysis approach, consisting of four stages, namely data collection, data reduction, data display, and conclusion (Miles et al., 2014). Data coding was developed based on the emerging themes and sub-themes and data triangulation of survey responses and interview transcriptions were conducted to ensure credibility and trustworthiness of the research. Table 2 presents the samples of the coding process.

Table 2. Qualitative data coding sample

Data	Themes	Sub-Themes
I have tried to use similar tools, the features are quite similar, but I think Google Translate is better	Strengths	Functions
I think when I use Google Translate, I can choose proper vocabulary as it can provide several alternate words, making me more variative in the writing process		Features
Yes, Google Translate can have inaccuracy of words as the translation does not fit into the context	Weaknesses	Contextuality
Yeah.. I only use it when I need it in my thesis writing as I am concerned with the grammar being produced. It can help me, but only a little		Grammar Accuracy
I never do the whole document translation because it will confuse the structure of the text, or incorrect terms on particular contexts. Therefore, I need to double check to make sure it is okay		Academic Integrity

The mixed-methods analysis used in this study is expected to present a more comprehensive understanding of the gathered data.

## Findings and Discussion

### Findings

There were two research objectives formulated in this study. The first one is to examine the integration of Google Translate as machine learning aid in the EFL students' thesis composition and the second aim is to explore the strengths and weaknesses of Google Translate for EFL students in their thesis writing process.

#### *Integration of Google Translate in EFL students' thesis composition*

From the survey on fifty participants, it was found that the mean score of the EFL students' perception was 44.18. This means that the students' perception on Google Translate in the thesis writing was "high." It indicates that students viewed Google Translate as a helpful tool for their thesis writing. To understand the perception better, a closer look at the three dimensions of perception, comprising perceiver, target, and situation dimensions, are explored. This exploration can also help to identify which dimension impacts students' perception on Google Translate during the thesis writing process the most.

From the frequency analysis on each of the perception dimension, consistent results supporting the ideal mean score analysis were found. Table 3 presents the survey results from the perceiver dimension.

Table 3. Perceiver dimension

Dimension Responses	Perceiver							Average (%)
	S1	S2	S3	S4	S5	S6	S7	
Strongly Agree	17	10	5	6	5	2	10	15.71%
Agree	28	19	18	17	16	12	27	<b>39.14%</b>
Neutral	3	16	18	17	18	19	8	28.29%
Disagree	2	4	8	8	11	13	4	14.29%
Strongly Disagree	0	1	1	2	0	4	1	2.57%
Total	50	50	50	50	50	50	50	100%

As seen in Table 3, there were seven statements formulated in the perceiver dimension that contained several information, such as how Google Translate could help respondents to translate faster, usefulness of Google Translate, respondents' feeling in using Google Translate, and how the respondents perceived the features of Google Translate. The results of the analysis showed that most of the respondents mostly agreed (39.14%) to the item statements, followed by 'Strongly Agree' (15.71%), 'Neutral' (28.29%), 'Disagree' (14.29%), and 'Strongly Disagree' (2.57%) options. The results indicate that most of the students perceived that the tool could help them to write undergraduate thesis and was useful in assisting them in working on the thesis in a faster manner. Google Translate was beneficial to the EFL students as it could support them in the academic writing process.

The target dimension shows novel value and resources that can be provided by Google Translate. Table 4 presents the results of this dimension.

Table 4. Target dimension

Dimension Responses	Perceiver				Average (%)
	S8	S9	S10	S11	
Strongly Agree	9	16	12	10	23.50%
Agree	31	31	25	33	<b>60%</b>
Neutral	5	3	10	4	11%
Disagree	3	0	3	3	4.50%
Strongly Disagree	2	0	0	0	1%
Total	50	50	50	50	100%

There were four statements formulated in the target of perception dimension, prominently elaborated the new resource and new valuable thing felt by the respondents when they used Google Translate. From Table 4, most of the respondents agreed (60%) that the tool could serve as a new learning resource while presenting new values to the users, in this case the undergraduate EFL students when working on their thesis as one of the required academic writing stages in their university studies. The result was subsequently followed by ‘Strongly Agree’ (23.50%), ‘Neutral’ (11%), ‘Disagree’ (4.50%), and ‘Strongly Disagree’ (1%) respectively. This means that the student respondents positively perceived the potentials of Google Translate as new resource that could bring about novel value to their thesis writing process.

The final perception dimension employed in this study is the situation dimension. The dimension reveals how respondents use Google Translate on their thesis work based on their situation. Table 5 presents the results of this dimension.

Table 5. Situation dimension

Dimension Responses	Situation	Average
	S12	(%)
Strongly Agree	9	18%
Agree	21	<b>42%</b>
Neutral	10	20%
Disagree	10	20%
Strongly Disagree	0	0%
Total	50	100%

From Table 4, it was found that majority of the respondents agreed (42%) to utilize Google Translate in their thesis writing situation. It was followed by ‘Neutral’ (20%), ‘Disagree’ (20%), ‘Strongly Agree’ (18%), and ‘Strongly Disagree’ (0%). This result can be interpreted that most of the student respondents perceived that using Google Translate was helpful during the thesis writing. The students found that the tool could assist them in performing high level of thinking, articulating rich quality of English vocabularies, and expressing technical writing ability.

It can be seen from Table 3, 4 and 5 that undergraduate EFL students perceived Google Translate as a positive tool to help them in the process of thesis writing. This is clearly shown from the results of the frequency analyses in each of the dimension that portray agreement as a majority result in every dimension. In conclusion, Google Translate was perceived as an advantageous tool for undergraduate EFL students in the thesis writing process due to its usefulness, its

ability to provide new resources and values, and the situations where the respondents utilized the tool. Despite the promising results, there are some interesting findings emerging, especially in slightly high percentages in 'Neutral' category in each of the dimension. This means that there are some open views regarding the integration of Google Translate in the students' EFL thesis writing process. Some students might think the tool was not fully beneficial and special in assisting them in the thesis writing composition. To understand this phenomenon, interviews were conducted with five voluntary students to explore about the strengths and the weaknesses of Google Translate in the thesis writing.

#### *Strength and weaknesses of Google Translate in the thesis writing process*

A qualitative data collection in the form of open-ended interviews was conducted to explore deeper and understand the 'Neutral' responses emergence from the students more comprehensively. From the interviews, two main themes of strengths and weaknesses of Google Translate were identified. Each them had two sub-themes that explained the students' responses during the survey. After coding all data transcripts, there were several strengths of Google Translate perceived by the interviewees which can be grouped into two, namely functions and features. The functions of Google Translate could be considered as good, because Google Translate was easy and simple to be used. One student said:

*... .., I like the display of the Google Translate which is very simple and easy to be used. It's only contained the language that we want translate and the target language and there is no adds. – S1*

S3 further added that from the previous experience, performances of Google Translate outstood other similar tools.

*I have tried to use similar tools, the features are quite similar, but I think Google Translate is better; it is the simplest one to me. – S3*

S5 further added, that,

*I think Google Translate is also very useful in my thesis writing because my native language is Indonesian and it can translate with good result in the English words. – S5*

Familiarity on the tool's function is also one consideration for the students when utilizing Google Translate. S2 asserted that,

*I have used Google Translate since I was in Junior High School level to help my assignment and making captions in Instagram in English. – S2*

Another strength emerging from the interview is that Google Translate could work faster than manual translation. S4 firmly stated that,

*I think Google Translate can translate faster than manual translation because it is helped by smart machine translation with big data. We only need to copy and paste the results to the document. – S4*

A similar response was also presented by S5 who stated that,

*Yes, I think that Google Translate is easy, quick and simple way to translate, because we don't need to bring dictionary, we only need to type the word or the sentences. – S5*

These statements indicated that the students' use of Google Translate was based on the tool's function, as it was easy, fast, simple, and familiar to them. The responses showed that the tool could assist the students during their thesis writing process due to its function in translation.

The other strong theme occurring from the interview result on the strength of Google Translate concerns with its features. The respondents found that the tool provided some beneficial features that could assist them in the thesis writing process. One of the interesting features was its ability to provide words' recommendations – a thesaurus feature.

*Google Translate has recommendations for other words that are similar to the words I need to use, so I can choose one of the relevant words that I think fit into the thesis writing. – S1*

S4 further added that,

*I think when I use Google Translate, I can choose proper vocabulary as it can provides several alternate words, making me more variative in the writing process. – S4*

These responses show that this feature was beneficial to help students in finishing their thesis. Some cautious and critical writing behavior also took place, for instance, a statement as presented by S3.

*Yes, I think it's like fifty-fifty. Sometimes, I use the recommendation but not always. I look for the context. If it matches, I will use it. – S3*

The response reveals that despite the good thesaurus feature, the user needed to be wise and always looked for the context when utilizing the tool, especially in the thesis writing process.

Another great feature of Google Translate was also on its ability to translate images. The tool could do translations of images, documents, and websites. The users only needed to drag and drop or upload the images, documents, or the website links for the translation of the intended matters with the desired translated languages. Regarding with this strength, S2 stated that,

*I like to use the image translation of the tool. I just need to upload or drag and drop the images and then the tool will translate it for me. It is very easy to use and I usually use this in order to understand the meaning of the sentence in books or articles. – S2*

S3 further added that Google Translate also could translate documents and websites, but with some limitations, like inaccuracy of contents and contextual



terms. However, it could still assist in some beneficial ways depending on the purpose of the features.

*I sometimes use the other features, like documents and websites as it can help me understanding ideas. It can produce the translation but not always accurate. It also cannot always translate longer works or websites. – S3*

Another important feature also comes from the ability to provide correct pronunciations of the works. It could utilize sounds at the same time. This feature could involve recording the original words or sentences and then translating them into the targeted language. Alternatively, it could entail reading the original or translated text aloud with the improved human reader-like quality, offering three different voice speeds of normal, slow, and slower. With this feature, the students felt they could learn the correct pronunciation, tone, stress, etc. at the same time. S3 stated that,

*I know that Google Translate can produce sounds of the translation result. Indirectly, it can help me to know the correct pronunciation. – S3*

Additionally, S5 asserted that,

*I like to use the other feature as well. To learn the pronunciation, I click on the mic button or speaker button and I can listen to the translated parts using sounds. This helps me to know how to pronounce the words especially during the presentation or consultation later. – S5*

These functionalities reflect the integration of artificial intelligence within machine translation systems, facilitating the provision of human-like quality translation. The functions and features of Google Translate as a machine translation tool exhibit the strong potential of the tool that EFL students could utilize when performing their tasks. In the context of thesis writing, the students found the tool could greatly assist in translating the targeted words and sentences supported by the affordances provided within the platform.

Besides strengths, Google Translate also had some weaknesses. Based on the responses mentioned by the students in the interview sections, some potential limitations of the tool included contextuality, grammatical accuracy, and academic integrity. The students admitted that the tool might only do literal translations and due to that, they needed to critically evaluate the translated results. S5 noted that,

*Yes, Google Translate can have inaccuracy of words as the translation does not fit into the context. – S5*

S4 only use the tool when necessary due to this issue.

*Yeah.. I only use it when I need it in my thesis writing as I am concerned with the grammar being produced. It can help me, but only a little. – S4*

In relation to this, S2 further added the 5,000-word limitation.

*The words are limited only 5,000 with some double checking needed for the grammar quality. So, I still need to check all translations. -S2*

Another interesting theme emerging from the interview results was about its potential to violate academic integrity. According to S1, translating large words or a whole document without alterations and improvement might go into cheating.

*I never do the whole document translation because it will confuse the structure of the text, or incorrect terms on particular contexts. Therefore, I need to double check to make sure it is okay. -S1*

S3 also added that students needed to really understand the translation before they put them into their own works as they needed to discuss or present the thesis later.

*I try to paraphrase the translation the best I can and avoid using all the produced translated words, so I can be more confident later when meeting my supervisor to present my progress. – S3*

The responses show that despite its strengths in terms of functions and features, Google Translate still have some weaknesses to be considered during the thesis writing process. The respondents acknowledged that the utilization of Google Translate was not consistently optimal, citing various emerging issues, like contextuality, grammar issues, and concerns regarding academic integrity. Therefore, despite the supporting affordances, students carefully consider the constraints to ensure optimal outcomes.

### ***Discussion***

The data analyses show that there are two main findings obtained, namely the positive views of the EFL students on the integration of Google Translate, and strengths and weaknesses of the tool in the thesis writing process. The survey data, including data from each dimension of perceiver, target, and situation, show that majority of the respondents agreed that Google Translate is a beneficial tool that could help them when crafting their thesis. This finding was supported by Nguyen (2023), who found that Google Translate is a useful tool for English writing. Marito and Ashari (2017) also highlighted the benefits of machine translation tool, like Google Translate, emphasizing its useful role in facilitating student access to accessibility and vocabulary expansion. According to Alhaisoni and Alhaysony (2017), this tool is helpful for the students to decipher unfamiliar words, particularly when undertaking writing tasks, like thesis composition. In her previous study, Niño (2009) further added that as a model, machine translation like Google Translate can assist the students to enrich memorization and editing works, especially for those working with foreign languages. Xu (2021) also evidenced that the participants in the study acknowledged Google Translate as one potential tool for English learning, especially for vocabulary enrichment, grammar supports, and composition process. These studies clearly support the research finding on the positive view of the tool as it benefited the students in the thesis writing process.

The results from the individual perception dimensions also supported the findings. In the perceiver dimension, it was found that students could utilize Google Translate to translate faster and thus enabling them to get adequate supports in drafting their writing more easily. As a result, it is widely used by language learners who need translation (Tongpoon-Patanasorn & Griffith, 2020). It also showed that the design and the features of Google Translate were simple and easy to be used. These findings support the previous existing research that found the tool to be time-saving and helpful to accomplish tasks (Chandra & Yuyun, 2018; Murtisari et al., 2019). Additionally, Google Translate is also a tool that is easy to use and fast (Alhaisoni & Alhaysony, 2017; Marito & Ashari, 2017). Just like non-native English learners as in the Japanese students, Xu (2021) found that students believed the use of Google Translate can help them to revise the linguistic, cognitive, and affective aspects of their works. The studies show linear results with this present research where most students viewed Google Translate could provide enough aids for their thesis writing and enabled them to work on the thesis faster.

Another strong supporting result came from the target dimension where majority of the respondents 'Agree' to the notion that Google Translate provides new resource and values in their use, especially during the thesis writing. The finding was supported by some previous studies. A study by Ariyanto and Setiamunadi (2023), for instance, found that tools like Google Translate is of value to the students in an academic situation, such as academic writing class. Zhang and Torres-Hostench (2022) further added that the tool provided resourceful ability for a particular writing task, like editing. Google Translate is also fast, free and easy to be accessed while providing ways of learning with variety of information and resources (Alhaisoni & Alhaysony, 2017). Other features like voice speed and pronunciation are also considered valuable by respondents in this present study. This finding supports what Murtisari et al (2019) found that Google Translate also plays a role to provide values for the users in sounds and pronunciation. It is evident that technologies, like Google Translate have a supportive role for students' English learning process (Jeanjaroonsri, 2023). These values in the students' writing process have evidenced to enable them to obtain assistance to perform their composition tasks.

The final dimension of perception deals with how the students used Google Translate on their thesis work based on their situation. This dimension also supports the main finding on the students' integration of Google Translate in the EFL students' thesis writing process and other casual purposes. This finding was supported by Xu (2021), who found that Google Translate is greatly used to assist themselves in academic tasks as it provides linguistic, cognitive, and affective benefits. In another academic situation, like editing, Zhang and Torres-Hostench (2022) also added that tools like Google Translate is employed by the students. More daily activities, like generating and checking captions in social media, Google Translate is also possible (Murtisari et al., 2019; Sutrisno, 2020) due to benefits it provided in the target language (Winiharti et al., 2021). These studies show that situations, both formal and informal, provided assistance to the students to employ supporting tools, like Google Translate to assist their performances.

Despite the positive result on the tool's integration in the students' thesis writing, some 'Neutral' responses also emerged. This finding shows that some

students were unsure of the benefits of Google Translate in their thesis writing process due to its limitations and possible drawbacks. The findings support some previous works on the similar topic. Chompurach (2021) highlighted that students had mixed responses toward Google Translate use in English writing. They admitted that the tool was helpful and reliable in the composition activity with considerations on incomprehensibility on the phrases, idioms, and long sentences' outputs. Another drawback of Google Translation is the lack of contextuality of the translated words. According to Marito and Ashari (2017), although Google Translate can help vocabulary, this machine translation tool could lead the students to a confused situation as the grammar was different from what they had learned before. They also became lazy to explore contextual terms and idioms when obtaining the literal translation. Murtisari et al (2019) emphasized that the tool can also reduce students' encounters with English as extensive reliance of the automatic translation created lacks of attachment to learning English and its awareness when placed into different linguistic contexts.

Besides context nuances, grammatical issue is also emerging as one weakness of Google Translate in the thesis writing process. According to Chandra and Yuyun (2018), translation result from Google Translate usually lacked of grammar accuracy. Similar findings were also emphasized by other studies stating that grammar could be confusing after the post-translation (Krisnawati, 2017). Marito and Ashari (2017) further mentioned the possible laziness students might experience to open dictionary, and memorize new words and special terms as in idioms. A study by Ariyanto and Setiamunadi (2023) also found something similarly important where the respondents perceived the tool as not helping them become more proficient with English grammar. These drawbacks certainly could hinder the students in using Google Translate at its best in the context of thesis writing.

Other than the contextuality and grammar, one big posing weakness of the tool is on the issue of academic integrity. Although Google Translate can effectively assist content, information, and data in the form of translated words in the intended languages, overusing the automatic translation practices without critical examinations of the results and abilities to paraphrase while being aware of ownership of information and ideas can lead to this negative experience. In the study, Xu (2021) found that despite the fact that the participants acknowledged the benefits to various extents, some were concerned about overdependence and academic honesty violations. Another similar result was presented by Susanto (2017), who found that most participants in the research believed that Google Translate is considered as cheating, especially if it is used excessively. To avoid this practice, a more critical examinations and exercises should be encouraged (Zhang & Torres-Hostench, 2022) and students still need to be aware with the ethics of using Google Translate (Garcia & Pena, 2011; Niño, 2009). This academic honesty issue is important and need to be properly addressed in the education area.

From the discussion, it was clear that Google Translate has been perceived positively by majority of the student respondents in this present study who were working on their thesis writing in the EFL context. This means that the participants agreed that the tool is useful, valuable, and it can be used in relevant situations. Apart from the positive perception, some neutral responses also

occurred, indicating some affordances and drawbacks of the tool for the students' English thesis writing process. All these factors, especially the drawbacks, need to be highly considered for effectiveness, efficiency, and meaningfulness of the use of Google Translate on EFL students' thesis writing process.

### Conclusion

The main objective of this research was to examine the integration of Google Translate in the EFL students' thesis writing. Explanatory mixed-method was employed to obtain research data. The quantitative data was obtained by using a perception questionnaire which then was followed by an open-ended interview session to gather the qualitative data. Using the ideal mean score analysis and the interactive model analysis, both quantitative and qualitative data were analyzed. From the results, it was found that most of the students participating in the study positively perceived the use of the tool in their thesis writing process. Even though every dimension of perception also supports this finding, there were some interesting data emerging where some participants were unsure about the use of the tool. From a further investigation using interviews, it was found that there are some supporting factors and limiting factors of using Google Translate in the thesis writing that need to be considered by the EFL students. As the supporting factors can strengthen the potential of using the tool, it is highly suggested to optimize the usefulness of the tool and minimize to overuse the tool while maintaining academic integrity during the writing process. As the study has a limited number of respondents, it is further suggested that the future studies can involve larger participants both for the survey and interview to ensure robust findings. It is recommended that the use of Google Translate in academic writing tasks must take into account the strengths of the tool while considering the weaknesses to optimize the potential benefits of the tool to assist the EFL students in performing their tasks.

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## Appendices

### Appendix 1. Perception survey

No	Indicators	SA 1	A 2	N 3	D 4	SD 5
1	I am able to translate faster by using Google Translate than translate manually.					
2	I consider that Google Translate is not very useful on my thesis writing.					
3	I use Google Translate to help me to translate words on my thesis writing properly.					
4	I am interested in using Google Translate to maintain words and sentences on my thesis writing.					
5	Using Google Translate does not help me to choose proper vocabulary on my thesis writing.					
6	Using Google Translate does not make me feel more confident about my vocabulary on thesis writing.					
7	I see the features of Google Translate are not simple and useful.					
8	I found Google Translate can produce sound of the translation result as a new valuable resource.					
9	I found Google Translate is easy, quick and simple tool, because it does not need to be installed or downloaded.					
10	I always use Google Translate to translate words and sentences, because it easy to be used since it does not need to be installed manually.					
11	Google Translate is similar with other translation tools but Google Translate can produce sound of translation, hence the user will know how to pronounce the words correctly.					
12	I always use Google Translate in my assignment, so I use Google Translate too in my thesis writing.					

### Appendix 2 Interview Guide

1. Do you think Google Translate can translate faster than if you translate manually? Why/why not?
2. Do you think Google Translate is very helpful on your thesis? Why/why not?
3. Do you use Google Translate to translate words, sentences or whole document? Why?
4. Do you have interest in using Google Translate to maintain your words or sentences? Why/why not?
5. Do you think Google Translate does not help you to choose proper vocabulary on your thesis writing? Why/why not?
6. Do you feel more confident about your vocabulary when using Google translate? Why/why not?
7. What do you think about the features of Google Translate?
8. What is the newest valuable resource of Google Translate? Why do you think so?
9. Do you think Google Translate is easy, quick and simple tool? Why/why not?
10. When will you use Google Translate?
11. Do you think Google Translate is similar with other translation tools? Why/why not?
12. Do you always use Google Translate in your assignment, so you use Google Translate too in your thesis writing? Why/why not?