

Google Translate on English Writing Evidence of EFL University Students

Siti Masruroh¹, Daviq Rizal¹

¹²*Universitas Islam Negri Walisongo Semarang*

Corresponding Author: sitiruroh090@gmail.com

ABSTRACT

This study investigates the Google Translate English writing evidence of English department and less-proficient non-English department students and students' perceptions of translating activities using Google Translate. Through the quantitative research, the researcher distributed a survey in the form of a Google form to 100 students majoring in English and non-English departments. A questionnaire was used to collect the students' opinions on the activity. The results showed that Google Translates text exhibits authoring performance that is noticeably better and provides more enriched content, employing a vocabulary more sophisticated and grammatical errors. Students use Google Translate because the tool shows better L2 performance in writing languages and tends to be instantaneous. The implications of this research are what students' perceptions of Google Translate are, and whether Google Translate can improve students' writing skills.

Keywords: EFL student perception; EFL student; google translate; impact; writing skills

A. INTRODUCTION

Writing proficiency is crucial for teaching EFL. Successful and effective writing involves several factors, such as vocabulary and syntax used, structure, and mechanics (Lee 2020). Writing instructions in an EFL environment is difficult, though. Due to a lack of class length or the large number of students in a class, many EFL students, for instance, have little opportunity to practice writing, receive comments and feedback from their teachers, or consult with teachers. As a result, EFL students lack writing confidence and motivation. Multiple levels of writing proficiency among EFL students in a single class, the usage of inefficient writing techniques, and adverse perspectives on writing (van Rensburg, Snyman, and Lotz 2012).

A frequent issue for EFL authors is the potential impact of their native tongue (L1). Writing by EFL students typically falls short of that of native authors. But in the minds of EFL authors, L1 with a second language (L2) are organically connected, and rather than ignoring it, this mental activity should be encouraged (Constantine 2019). This point of view is consistent with translanguaging theory, which presupposes that speakers of several languages can adopt and combine various language aids to produce their sounds (Ebadi and Rahimi 2019). Translingual

education is effective for developing all four language abilities, according to related studies (Bowker 2020).

Because of the swift advancement and creative expansion, L2 learners now have access to a variety of online machine translation (MT) resources of information and communication technology (Mundt and Groves 2016; Spellman 2011; Tsai 2019). A well-liked engine, Google Translate is notable for its simplicity of use, affordability, and speed of operation. Many institutions consider its correctness to be a minimal requirement for entrance to universities, and it has been recognized as an excellent translation tool in EFL writing. It integrates several Google features for writers. When testing the effectiveness of Google Search Techniques (GST), Chinese and Korean EFL institutes used articles, collocations, and paraphrases as examples to improve L2 writing (Temizöz 2016). Additionally, Google Docs is a useful educational tool for instructing L2 computer-supported writing, both individually and collaboratively (King 2019).

In 2016, Google released Google Neural Machine Translation (GNMT), a new version of Google Translate that is driven by an AI system. It translates across languages by encoding sentence semantics, which results in better, more accurate translations of complete sentences (Reber 2019). Updated Google Translate's potential as a teaching aid in EFL classes has been examined in several studies. Briggs (2018) discovered that the output's accuracy was superior to that of 80 top-year university students who worked together to translate spoken Korean into English. Google Translate, according to Lee (2020), improved the vocabulary, grammar, and phrases of English majors at a university in Korea. It also had a favorable impact on the students' writing strategies during revision. Stapleton and Kin (2019) We discovered that, despite not considerably differing from their original English texts, elementary school pupils' English translations of Chinese literature using Google Translate were evaluated by teachers to be more accurate than, the language meaning in the GT version was occasionally more complex and subtle than in the student version. They concluded that foreign language teachers should look at this kind of technology since it has the potential to significantly impact both the teaching and learning of L2 writing.

Machine translation (MT) systems like Google Translate were not initially intended for language acquisition, even if they have greatly improved and are still not accurate (Colina and Lafford 2017; Garcia and Pena 2011; Woodall 2002). Inaccuracies in vocabulary and grammatical usage, literal translations, ambiguity, inadequate or erroneous cultural awareness, and contextual errors are only a few of the problems that have drawn criticism. As a result, the employment of MT in the classroom is typically seen negatively by language teachers. However,

it is crucial to take the user's level of language proficiency into consideration when applying MT as a tactical tool for revision in EFL writing. MT output quality is also influenced by the matched language (White and Heidrich 2013). In other words, translations between European languages are usually more precise and understandable than translations between European and Asian languages (Wang 2003).

The majority of the studies in the literature on L2 writing had been done before its November 2016 launch, therefore there was little understanding of the new AI-driven version of Google Translate's possible advantages or potential issues for L2 writing. Because EFL students who major in English often have stronger English competence than those who major in a language other than English, they were the main participants in the current study on improved Google Translate (Stapleton and Leung Ka Kin 2019). In light of this, Lee (2020) has emphasized that additional empirical studies should be conducted to back up the pedagogical value of Google Translate for L2 writing. It is vital to assess how reliable the new Google Translate with AI is when used by EFL students with varying levels of English language proficiency (Niño 2008; Sha 2010; Shadiev, Sun, and Huang 2019).

According to the preliminary study, many students use Google Translate to translate to comprehend the topic. Students are aware, based on the researcher's experience, that the translation outcomes from Google Translate for a sentence are not always exactly what the text desires and the original context in which the sentence appears. When the subject matter they are familiar with is being covered in class, they already know this from personal experience. This study's major goal is to determine how Google Translate affects university students who are English as a Second Language (EFL) writers' proof of their English writing. The researcher created the following research questions while taking the study's goals into account: **RQ 1.** What is the impact of Google Translate on English writing evidence from EFL university students? **RQ 2.** What are the student's experiences using Google Translate?

B. REVIEW OF LITERATURE

Translation

Translation is the process of interpreting a message or word from one language into another. According to (Tinsley, R. L., & Brislin 1977), translation is a generic phrase that describes the transfer of ideas from one language (the source) to another (the target). On the other hand, (Salzmann, Z., & Bell 1993) identify an equal in the target language, the goal of translating is to correctly replicate all of the grammatical and lexical aspects of the original

"source language." Translation is the process or outcome of transforming information from one or a variant of languages to another.

Google Translate

One of the most widely used free multilingual translators is Google Translate, one of the Google products. Users of Google Translate can make use of a variety of advantages. These advantages include the use of a translator, an online dictionary, an online thesaurus, a spell checker, and a tool for learning foreign languages. According to Saputra (2017), this application also contains several helpful capabilities, such as speech recognition, alternate translation, word alignment, language switching, and word construction. Along with its benefits, Google Translate also has drawbacks that will affect its users.

Writing Skills

According to (Pranoto 2004) writing refers to expressing ideas verbally or in writing to communicate with others. Writing can also be seen as an overview of feelings that are expressed verbally. In other words, we can indirectly connect through the writing process. Because writing is not a straightforward cognitive function, it is a challenging talent. The reason for this is that to become proficient writers, students need to focus on a variety of factors, such as appropriate word choice and vocabulary. Writing requires extensive knowledge of vocabulary, grammar, and syntax, which adds to its complexity. The usage of mechanics in writing, like capitalization, question marks, common, etc., is also necessary. Syntactic structures are revealed using these mechanics (Frazer, T. C., Fromkin, V., & Rodman 1984).

C. METHOD

We conducted quantitative research using a survey design (Gay, L. R.; Mills, Geoffrey E.; Airasian 2012) on several students majoring in English and non-English. Quantitative research answers research questions contained in the Google Form which are shared by researchers to gain experience and insight from informants. This research was conducted with participants who were recruited from several students in various semesters majoring in English and non-English at tertiary institutions (Figure 1). The research was conducted directly (offline) and indirectly (online). Research questionnaires are a useful tool for collecting data on the impact of Google Translate on English writing among EFL university students. Students were asked to answer a questionnaire (Google Form) that had been distributed to them accompanied by researchers, they each answered the questions according to the direction of the researcher.

Students were given access to a survey that included open-ended questions. On a 5-point Likert scale with the options Strongly Agree (VA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD), questionnaires were distributed to students to ascertain their opinions about using Google Translate. To confirm the accuracy of the survey information in this course, the questionnaire was reviewed. In the eight-item survey, students were asked if they thought Google Translate was a helpful tool for them to develop their EFL writing skills in terms of vocabulary, sentence structure, speed, and grammar. They were also asked if they would use Google Translate in the future.

Each informant is on average 18-20 years old and is currently a 4th and 6th-semester student majoring in English and non-English. On average, 74% of those who fill out the Google form are women and 26% are men. the female population is more numerous than the male population (figure 3) and most of them learn English in 6-10 years starting from the elementary school era until now in college (figure 4) and their English level is mostly intermediate (figure 5). first, the researcher distributed the Google form link to several students, then got some information, and was analyzed by the researcher using a descriptive quantitative method, getting the results mostly using Google Translate as a translator tool and making it easier for them to write.

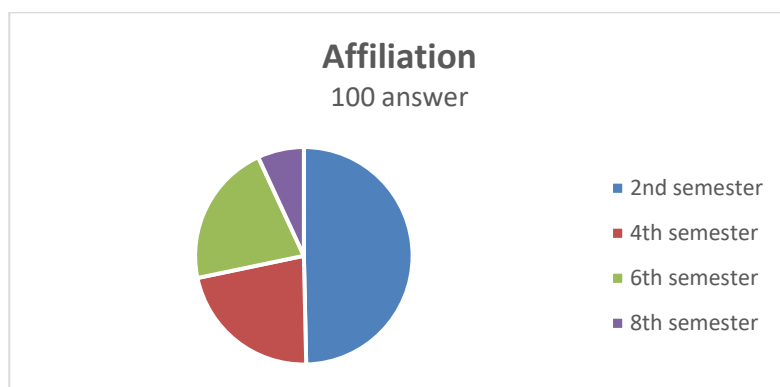


Figure 1. Affiliation of the informant

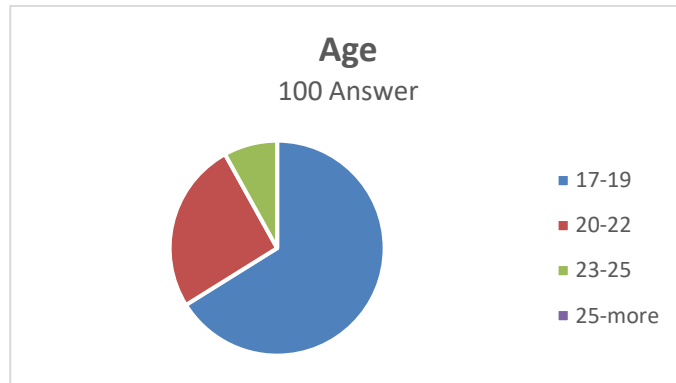


Figure 2. Age of the informant

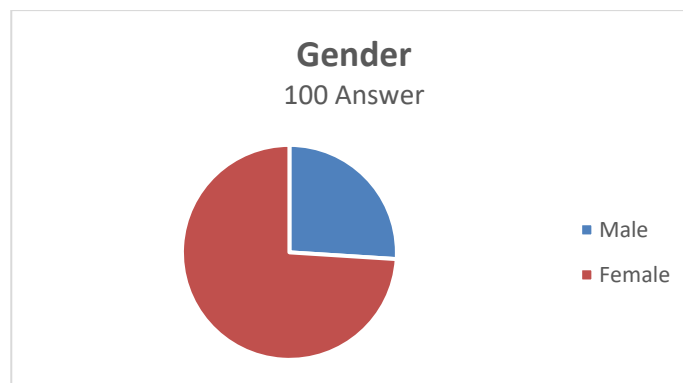


Figure 3. Gender of the Informant

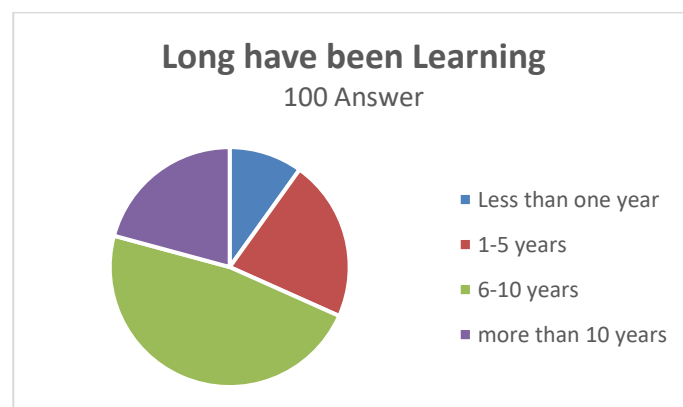


Figure 4. Long of Learning the Informant

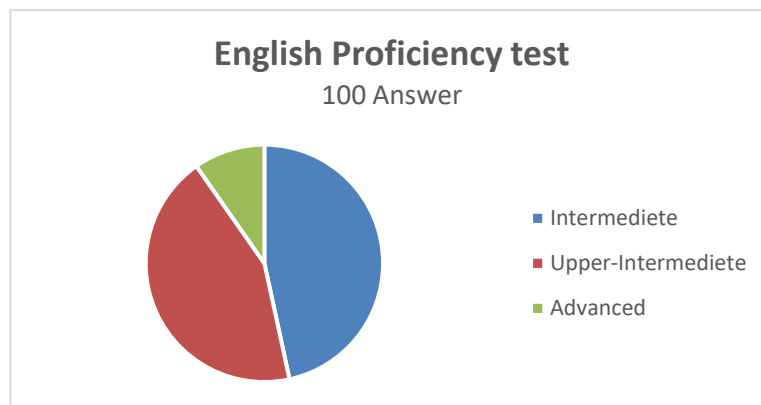
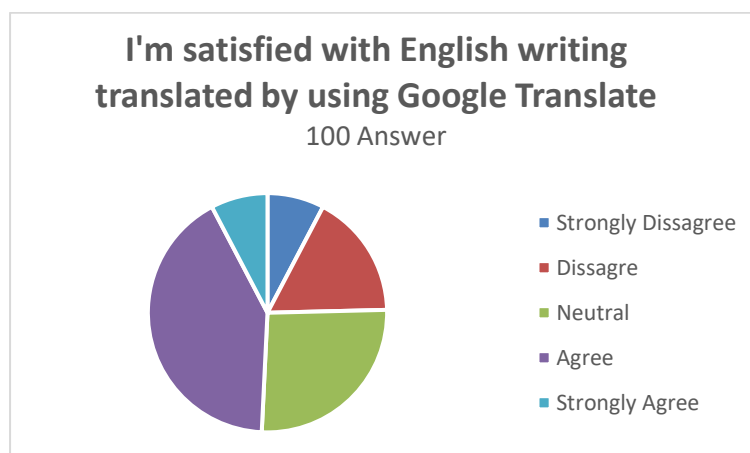


Figure 5. Level of English Proficiency the Informant

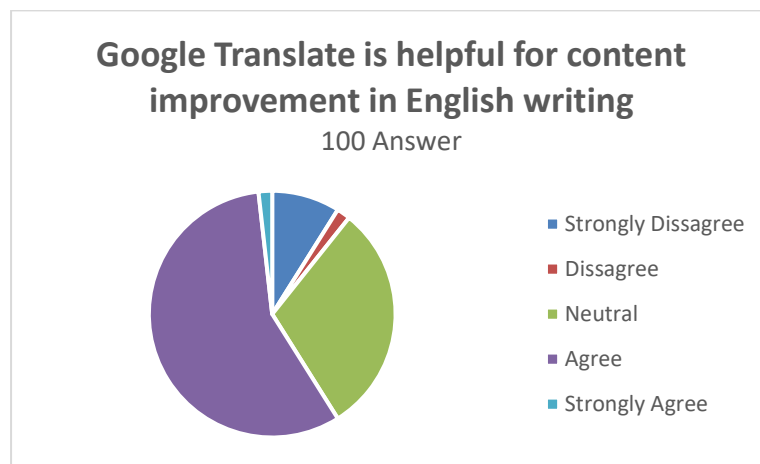
D. FINDING AND DISCUSSION

According to the information collected from the students who completed the questionnaires that were distributed to them. The questionnaire's inquiries concern the use of Google Translate as a translingual tool for writing abilities.

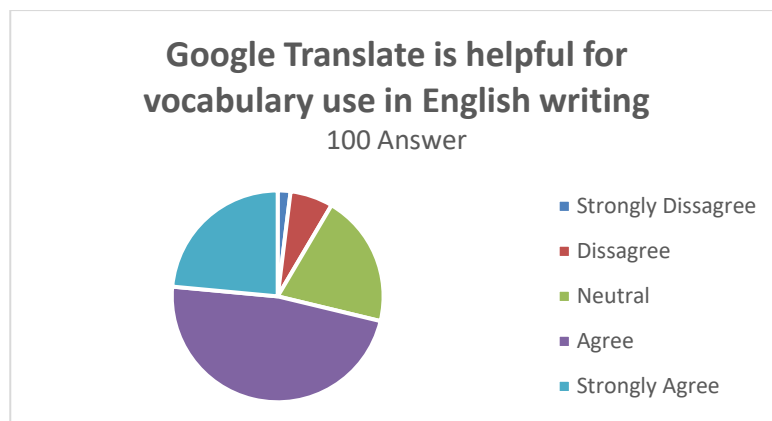
In the first questionnaire, most students answered Agree (A) as much as 53%, Neutral (N) as much as 20%, Disagree (D) as much as 14%, Strongly Disagree (SD) as much as 6%, and answered Strongly Agree (SA) by 7%. of all the options that were all chosen by all respondents but the highest percentage was 53%, even more than half a percent themselves answered Agree (A), so it can be concluded that students answered agree (A). It may be inferred that students' use of Google Translate as a translation tool in their writing abilities has led to their satisfaction with the way their English writing has been translated using the program, as well as their confidence.



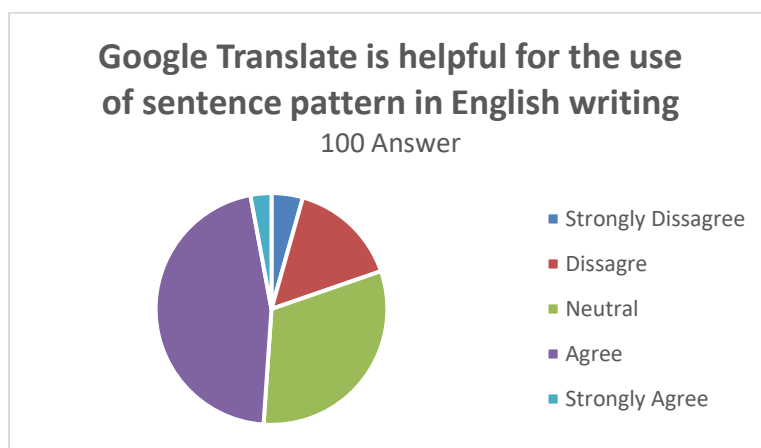
In the second questionnaire, most students answered Agree (A) by as much as 59%, Neutral (N) by as much as 23%, Strongly Agree (SA) by as much as 12%, and those who answered Strongly Disagree (SD) and Disagree (D) by 5%. the highest percentage is 59%, namely choosing the Agree option (A), even though the percentage has not exceeded half most choose to agree so it can be concluded that students answered agree (A). It can be inferred that students find Google Translate useful for discovering more information in their English writing by using it as a translation tool in their writing skills.



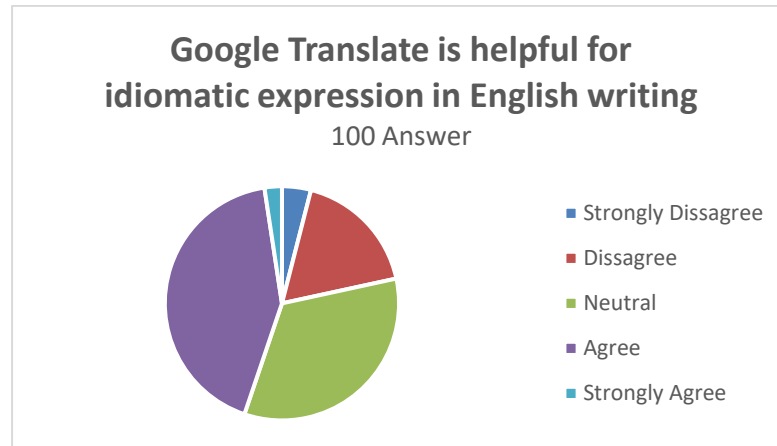
In the third questionnaire, most students answered Agree (A) by as much as 61%, Neutral (N) by as much as 18%, Strongly Agreed (SA) by as much as 13%, Disagree (D) by as much as 6%, and those who answered Strongly Disagree (SD) by 2%. The highest percentage, namely 61%, chose the Agree (A) option, most even more than half the percentage chose to agree so that it can be concluded that students answered agree (A). It can be inferred that students find Google Translate to be useful in their vocabulary usage when writing in English by using it as a translation tool.



In the fourth questionnaire, most students answered Agree (A) as much as 51%, answered Neutral (N) as much as 26%, answered Disagree (D) as much as 14%, and those who answered Strongly Agree (SA) and Strongly Disagree (SD) 9%. The highest percentage, namely 51%, chose the Agree (A) option, most even more than half of the percentage chose to agree so that it can be concluded that students answered agree (A). It may be concluded that students find Google Translate to be useful in their use of sentence structures in written English by using it as a translation tool in their writing skills.



In the fifth questionnaire, most students answered Agree (A) as much as 44%, answered Neutral (N) as much as 30%, and those who answered Disagree (D) were as much as 19%, and those who answered Strongly Disagree (SD) and Strongly Agree (SA) by 6%. The highest percentage, namely 44%, chose the Agree (A) option but the difference was slightly different from those who answered disagree (D) so it can be concluded that some students answered agree (A) and most answered disagree (D). It may be inferred that some students find it beneficial when using Google Translate as a translation tool in their writing skills for idiomatic expressions in written English, however, other students may feel unhelpful when using Google Translate for idiomatic expressions.

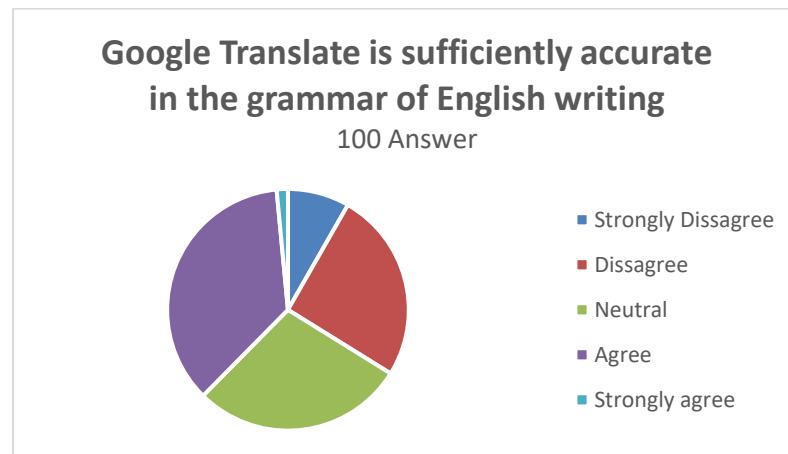


In the sixth questionnaire, most students answered Agree (A) as much as 57%, answered neutral (N) as much as 29%, answered disagree (D) as much as 9%, and those who answered Strongly Disagreed (SD) and Strongly Agree (SA) as much as 3%. the highest percentage, namely 57%, chose the Agree (A) option, this percentage was even more than half the percentage, so it can be concluded that students answered agree (A). It may be inferred that students find Google Translate to be useful in their writing skills as a translation tool because it makes it easier for them to finish writing in English.

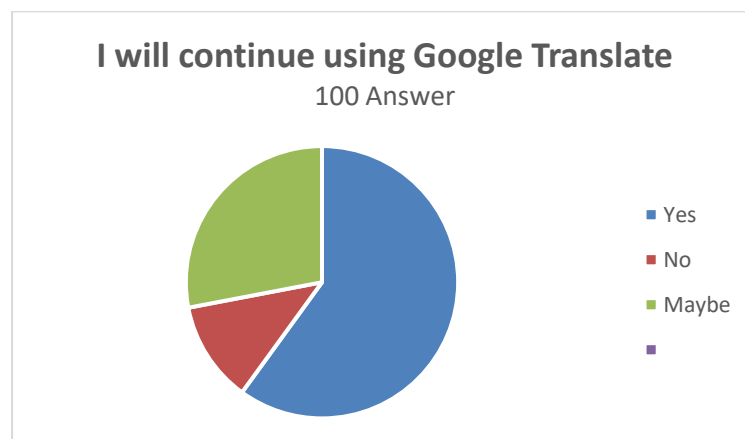


In the seventh questionnaire, almost the average student answered neutral (N) as much as 29%, answered agreed (A) 38%, answered disagreed (D) as much as 26%, and those who answered strongly disagreed (SD) as much as 6%. The percentages look almost even, with only a few percent difference, so it can be concluded that some students answered neutral (N) between agreeing and disagreeing, some answered agreeing (A), and some answered disagreeing (D). It is possible to infer that while utilizing Google Translate as a tool to translate students' writing abilities, some students experience neutrality (feel normal between being helped and not

being helped), some experience unhelpfulness when it comes to finishing writing in English, and others experience neutrality.



In the eighth questionnaire, the only options available were Yes, No, and Maybe. then the respondent can only answer between the three available options. and most answered YES as much as 65% this was probably because they were greatly assisted in terms of satisfaction in translating text, increasing writing content, assisting in adding vocabulary, assisting in idiomatic expressions, grammar, etc. Students answered MAYBE as much as 30% which could mean that they could still use Google Translate or sometimes not use GT, and as much as 5% answered NO because maybe they feel disadvantaged by using Google Translate so that in the future they will no longer use Google Translate.



Based on the findings of the research, it can be said that Google Translate can be utilized as a translator tool to improve students' writing skills if the proper procedures and approaches are employed. The existence of various features on Google Translate can have implications for writing English so students can use Google Translate in a positive direction. Google Translate

can also make it easier for students to be helped in terms of satisfaction in translating text, adding written content, helping in adding vocabulary, helping in idiomatic expressions, grammar, etc. The findings of this study make it clear that using Google Translate as a translation tool when writing in English is very interactive and successful at boosting students' self-confidence in their writing abilities.

Every student is familiar with Google Translate as a tool for language conversion. Of course, using Google Translate as a mobile application is considerably more convenient than carrying around a dictionary. They continue to enter sentences word-by-word rather than sentence-by-sentence to interpret sentences. Therefore, if they have to translate paragraphs, they do it by searching for the definitions of unfamiliar words before putting them together while paying attention to syntax and other factors. However, some kids are still unable to comprehend how the Google Translate software functions. They are unaware that this application's operating system translates words for words. As a result, some students still use Google Translate to translate sentences, typing in the translated words immediately before trying to match the translations to the surrounding context.

The findings of the questionnaire study show that, even without comparing proper grammar, more than 50% of students believe and utilize Google Translate to play a significant influence in the success of their writing. Google Translate handles almost all of the necessary translation tasks, including everything from simple vocabulary translation to text translation. More than 50% of students solely use Google Translate to translate, according to the survey's findings, and they seldom ever use it to expand their vocabulary or perfect their pronunciation. It is frequently used by many students in their reading, writing, and translation of lectures.

Students stop using printed dictionaries in favor of the Google Translate app due to its benefits like "fast" and "light." Students had a favorable opinion of using this application, even though it has several shortcomings. As long as they can match the context, they think the translation findings will continue to be reliable. Most students use Google Translate because they feel comfortable with it, google translate is very easy to use, just enter the sentence you want to translate, and the translation will appear on its own so they don't have to think much about translation, and most of them also don't need the correct translation. it's important that they understand and they'll match it according to the context that's enough.

There have been many studies examining Google Translate, but each result certainly has its characteristics related to this theme. Apart from that, the focus of the problem studied is related to Google Translate in a forum, which has not been widely used by previous researchers. Research conducted by Reem Assalem from the University of Languages and Translation, King

Saud University, Riyadh, Saudi Arabia (Assalem 2019) entitled “The Effects of the Use of Google Translate on Translation Students’ Learning Outcomes” The results of this research state that after editing Google Translate is beneficial for the development of translation students translation skills, but warns against introducing or allowing their use at the basic stage of translation training. It is also important to remind students of the fact that translation technology exists to help translators be better prepared for demanding careers and to complete quality translations more quickly. The research was conducted by Melita Nadhianta, a student of Yogyakarta State University (Nadhianti 2016) entitled “An analysis of accuracy level of Google Translate in English- Bahasa Indonesia and Bahasa Indonesia - English Translation”. The findings of the research, show that Google Translate still needs some improvements in making the output precise in meaning and it is more appropriate for Google Translate only as an aid in translating.

Research conducted by Adam Ismail, a student of the English Department. Faculty of Languages and Arts, Universitas Negeri Semarang (Ismail and Hartono 2016) on the title “Errors made in Google Translate in the Indonesian to English translations of news items text”. The result of this study showed that the statistical method of Google Translate, the inability of Google Translate to understand the contexts of the texts beyond the sentence, and errors in the source texts that carried into translation errors in the target texts were the causes of translation errors found in the data. Research conducted by Jawaher Ali Almufawez and Nadia Maroof, the students of Yanbu University College, Saudi Arabia (Almufawez, Ali Almufawez, and Maroof 2018) entitled “Using Google Translate to Improve Junior Students Translation”. The result of this study showed that Google Translate affected students’ translation in some parts; it influenced the student's comprehension, word selection, and punctuation, but it did not affect idioms translation. Moreover, the students had almost a positive opinion of it. The research states that Google Translate influenced students’ translation in some aspects. It affected their comprehension, word selection, and punctuation, but it did not affect idioms translation. Also, the students had almost an affirmative opinion on it. The researcher recommended that the students should use Google Translate as a helper if they face any difficulties in translation.

Based on the findings of this study, it is known that students who use the Google Translate application benefit from the service's quickness in determining the meaning of the word they wish to translate. Additionally, it becomes easier to carry this application than a dictionary because it is an application. Meanwhile, regarding the shortcomings of this application, namely

the translation results which are sometimes inaccurate and inconsistent with English grammar, students claim to work around this by re-matching the translation results with the context.

E. CONCLUSION

The purpose of this study is to find out how useful Google Translate is for writing in English when used as a translanguaging tool. The findings demonstrate that a translation strategy using Google Translate into written English can assist EFL students in improving their English writing performance by offering more enriched content, using more sophisticated vocabulary, and making fewer spelling and grammatical errors, especially useful for students with lower English proficiency. According to the survey's findings, students were substantially more satisfied with using Google Translate and had significantly more positive sentiments around it. Technology has become essential in the age of the digital revolution. They still need to work on their English, even though Google Translate makes the translation approach applied to writing faster, more practical, and even more accurate. the capacity to read and comprehend translations produced by Google Translate, as well as to promptly make any necessary changes and corrections.

REFERENCES

- Almufawez, Jawaher Ali, Jawaher Ali Almufawez, and Nadia Maroof. 2018. "Using Google Translate to Improve Junior Students' Translation." *Journal of Applied Linguistics and Language Research* 5(5): 116–23. www.jallr.com.
- Assalem, Reem. 2019. "The Effects of the Use of Google Translate on Translation Students' Learning Outcomes." *Arab World English Journal For Translation and Literary Studies* 3(4): 46–60.
- Bowker, Lynne. 2020. "Chinese Speakers' Use of Machine Translation as an Aid for Scholarly Writing in English: A Review of the Literature and a Report on a Pilot Workshop on Machine Translation Literacy." *Asia Pacific Translation and Intercultural Studies* 7(3): 288–98. <https://doi.org/10.1080/23306343.2020.1805843>.
- Colina, Sonia, and Barbara A. Lafford. 2017. "Translation in Spanish Language Teaching: The Integration of a 'Fifth Skill' in the Second Language Curriculum." *Journal of Spanish Language Teaching* 4(2): 110–23. <https://doi.org/10.1080/23247797.2017.1407127>.
- Constantine, Peter. 2019. "Google Translate Gets Voltaire: Literary Translation and the Age of Artificial Intelligence." *Contemporary French and Francophone Studies* 23(4): 471–79. <https://doi.org/10.1080/17409292.2019.1694798>.

- Ebadi, Saman, and Masoud Rahimi. 2019. "Mediating EFL Learners' Academic Writing Skills in Online Dynamic Assessment Using Google Docs." *Computer Assisted Language Learning* 32(5-6): 527-55. <https://doi.org/10.1080/09588221.2018.1527362>.
- Frazer, T. C., Fromkin, V., & Rodman, R. 1984. "An Introduction to Language." *Language* 60(2).
- Garcia, Ignacio, and María Isabel Pena. 2011. "Machine Translation-Assisted Language Learning: Writing for Beginners." *Computer Assisted Language Learning* 24(5): 471-87.
- Gay, L. R.; Mills, Geoffrey E.; Airasian, Peter W. 2012. *Educational Research: Competencies for Analysis and Applications*. 10th edit. Pearson. <https://thuvienso.hoasen.edu.vn/handle/123456789/9427>.
- Ismail, A, and R Hartono. 2016. "Errors Made in Google Translate in the Indonesian to English Translations of News Item Texts." *ELT Forum: Journal of English Language Teaching* 5(2): 1-6.
- King, Katherine M. 2019. "Can Google Translate Be Taught To Translate Literature? A Case for Humanists To Collaborate in the Future of Machine Translation." *Translation Review* 105(1): 76-92. <https://doi.org/10.1080/07374836.2019.1673268>.
- Lee, Sangmin Michelle. 2020. "The Impact of Using Machine Translation on EFL Students' Writing." *Computer Assisted Language Learning* 33(3): 157-75. <https://doi.org/10.1080/09588221.2018.1553186>.
- Mundt, Klaus, and Michael Groves. 2016. "A Double-Edged Sword: The Merits and the Policy Implications of Google Translate in Higher Education." *European Journal of Higher Education* 6(4): 387-401.
- Nadhianti, Melita. 2016. "An Analysis of Accuracy Level of Google Translate in English- Bahasa Indonesia and Bahasa Indonesia-English Translations." : 282.
- Niño, Ana. 2008. "Evaluating the Use of Machine Translation Post-Editing in the Foreign Language Class." *Computer Assisted Language Learning* 21(1): 29-49.
- Pranoto, Naning. 2004. *Creative Writing Jurus Seni Mengarang*. PT. Primadia Pustaka.
- Reber, Ueli. 2019. "Overcoming Language Barriers: Assessing the Potential of Machine Translation and Topic Modeling for the Comparative Analysis of Multilingual Text Corpora." *Communication Methods and Measures* 13(2): 102-25. <https://doi.org/10.1080/19312458.2018.1555798>.
- van Rensburg, Alta, Cobus Snyman, and Susan Lotz. 2012. "Applying Google Translate in a Higher Education Environment: Translation Products Assessed." *Southern African Linguistics and Applied Language Studies* 30(4): 511-24.

- Salzmann, Z., & Bell, R. T. 1993. "Translation and Translating: Theory and Practice." *Language* 69(1).
- Sha, Guoquan. 2010. "Using Google as a Super Corpus to Drive Written Language Learning: A Comparison with the British National Corpus." *Computer Assisted Language Learning* 23(5): 377–93.
- Shadiev, Rustam, Ai Sun, and Yueh Min Huang. 2019. "A Study of the Facilitation of Cross-Cultural Understanding and Intercultural Sensitivity Using Speech-Enabled Language Translation Technology." *British Journal of Educational Technology* 50(3): 1415–33.
- Spellman, Rosemary. 2011. "Developing Best Practices for Machine Translation Using Google Translate and OCR Terminal." *Journal of Interlibrary Loan, Document Delivery and Electronic Reserve* 21(3): 141–47.
- Stapleton, Paul, and B. Leung Ka Kin. 2019. "Assessing the Accuracy and Teachers' Impressions of Google Translate: A Study of Primary L2 Writers in Hong Kong." *English for Specific Purposes* 56: 18–34. <https://doi.org/10.1016/j.esp.2019.07.001>.
- Temizöz. 2016. "Postediting Machine Translation Output: Subject-Matter Experts versus Professional Translators." *Perspectives: Studies in Translatology* 24(4): 646–65.
- Tinsley, R. L., & Brislin, R. W. 1977. "Translation: Applications and Research." *The Modern Language Journal* 5(6): 61.
- Tsai, Shu Chiao. 2019. "Using Google Translate in EFL Drafts: A Preliminary Investigation." *Computer Assisted Language Learning* 32(5–6): 510–26. <https://doi.org/10.1080/09588221.2018.1527361>.
- Wang, Lurong. 2003. "Switching to First Language among Writers with Differing Second-Language Proficiency." *Journal of Second Language Writing* 12(4): 347–75.
- White, Kelsey D., and Emily Heidrich. 2013. "Our Policies, Their Text: German Language Students' Strategies with and Beliefs about Web-Based Machine Translation." *Die Unterrichtspraxis/Teaching German* 46(2): 230–50.
- Woodall, Billy R. 2002. "Language-Switching: Using the First Language While Writing in a Second Language." *Journal of Second Language Writing* 11(1): 7–28.