

The Roles of Machine Translation and Students' Attitude Toward Its Use in Academic Writing

¹Vallerie Louisa, ²Yohanes Maria Restu Dian Raharjo

¹Bahasa Inggris, Universitas Bunda Mulia, Jakarta

²Bahasa Inggris, Universitas Bunda Mulia, Jakarta

E-mail: ¹vlouisa.research@gmail.com, ²yraharjo@bundamulia.ac.id

ABSTRAK

Penelitian ini bertujuan untuk menyelidiki peran Mesin Penerjemah serta Sikap Mahasiswa terhadap penggunaannya dalam Penulisan Akademik. Penelitian ini menggunakan metode penelitian kualitatif. Data diperoleh melalui kuesioner yang dibagikan kepada mahasiswa semester 6 dan 8 Program Studi Bahasa Inggris. Untuk menganalisis data, teknik analisis tematik digunakan, di mana peneliti mengidentifikasi tema-tema dari hasil kuesioner. Hasil penelitian menunjukkan bahwa terdapat tiga tema yang menyoroti sikap negatif mahasiswa terhadap Google Translate, yaitu apresiasi – penilaian negatif, penilaian – ketekunan negatif, dan afeksi – ketidakpuasan. Meskipun demikian, mahasiswa juga mengakui bahwa Google Translate masih memiliki beberapa manfaat, seperti mengurangi kesalahan, memahami kosakata secara efektif, dan meningkatkan keterampilan menulis bahasa Inggris mahasiswa. Dengan demikian, dapat disimpulkan bahwa Google Translate memiliki keunggulannya tersendiri, meskipun belum sepenuhnya efektif untuk digunakan dalam konteks Penulisan Akademik.

Kata kunci: sikap mahasiswa, mesin penerjemah, Google Translate, pembelajaran bahasa, Penulisan Akademik Berbahasa Inggris

ABSTRACT

This research aims to investigate the role of Machine Translation and Students' Attitude toward its use in Academic Writing. This research employed a qualitative research method. The data were gathered from the questionnaire distributed to the students of 6th and 8th semester students of the English Language Department. To analyze the data, the thematic analysis technique was employed, in which the researcher identified themes from the questionnaire results. The results shows that there are three themes that highlighted the students' negative attitude towards Google Translate, which were appreciation – negative valuation, judgment – negative tenacity, and affect – dissatisfaction. However, the students also acknowledged that Google Translate still had some benefits, including to decrease errors, comprehend words effectively, and enhance the students' English writing skills. In conclusion, It can be indicated that Google Translate had its own advantages, although it was not very effective when it comes to translating for Academic Writing.

Keyword: *students' attitude, machine translation, Google Translate, language learning, English Academic Writing*

1. INTRODUCTION

The success of English language learning, especially in a foreign language

context, is influenced by various internal and external factors. Among many key factors (e.g. motivation, personality, age,

experience, prior language knowledge, aptitude, etc.), attitude stands out as one of the most critical elements affecting the learning process (Pratolo, 2017). This attitude is widely acknowledged as a driving force in both initiating and sustaining language learning. Besides, students tend to mirror the attitudes demonstrated by their teachers. This indicates that teachers are consequently encouraged to offer a range of strategies so that students can select the ones that most align with their learning goals and personalities (Abdullaev, 2021; Habók & Magyar, 2018; Setiadi, 2025). Therefore, a successful English language learning must cater both internal and external factors.

Machine Translation (MT) is one of contributing external factors in English language learning, particularly in writing, developing metalinguistic awareness, and acquiring language through translation practices. In writing, MT can assist students in the process of writing and revising, especially in reducing the lexical-grammatical errors (Lee, 2020). Meanwhile, MT can also help students in developing their performance in second language writing and translation, leading to a better metalinguistic awareness (Jolley & Maimone, 2022). Besides, translation practices assisted by MT can aid students to acquire foreign languages independently because it serves as a platform to project target language's grammar (Mahardika, 2017). Thus, the relevance of MT in language learning should not be neglected.

Google Translate has emerged as a valuable MT in language learning. Its accessibility allows learners to explore vocabularies, phrases, and structures in the target language independently. This increases their sense of autonomy and promotes deeper engagement with the language use (Lieshout & Cardoso, 2022). Furthermore, this MT can also become a reliable tool for students to keep up with their peers in language classrooms

(Briggs, 2018). In addition to English language learning among Indonesian students, this MT has been appreciated for its efficiency and effectiveness in bridging English and Indonesian (Aulia et al., 2024). This shows how Google Translate becomes an integral part of students' language learning process.

In the academic writing context, Google Translate has played significant role in supporting students. This MT has proven to be useful in assisting the writing process (Fibriana et al., 2021). It helps students to check grammar, improve word-choice, and understand unfamiliar vocabularies. In addition, using Google Translate most likely increases students' involvement and responsibilities in the learning process, including writing (Bahri et al., 2016). Therefore, Google Translate may serve not only as a writing tool but as an instrument to promote language awareness and learning autonomy.

Given the significances of Machine Translation (MT) usages in language learning, this research aims to examine (1) the roles of MT, specifically Google Translate, and (2) students' attitudes toward its usage in academic writing. To achieve these objectives, this research involves students of English language Department of Bunda Mulia University as its participants. The findings also aim to provide educators with insight on how to promote more effective and responsible uses of MT in classroom.

2. LITERATURE REVIEW

2.1 Attitude

Attitude refers to emotional or mental response produced by a person toward a particular thing, and often influences behavior. This response is a psychological phenomenon manifesting in actions, but may not always directly reflect the behavior (Amin, 2020). Specifically, attitude is categorized into two types, namely general and specific (Ajzen et al., 2018). While a general attitude links to broader concepts such as

groups, laws, or events, a specific attitude concerns with specific actions directed at a particular target. In short, attitude is more of a complex internal state that possibly aligns with observable behavior.

Attitude reflects how individuals respond to their surroundings (Jain, 2014). This can be both in conscious and unconscious ways, as a result of forming relations with people, behaviors, objects, or social norms. In addition, attitude can be a relatively stable set of emotion, beliefs, and tendencies directed toward a particular thing (Jain, 2014). Thus, attitude is formed based on how people interact with their environment.

Attitude significantly relates to how individuals employ their emotions, including emotional responses, evaluation of objects, and assessment of behaviors (Puspita & Pranoto, 2021). This employment is categorized into three types namely, (1) Affect, (2) Judgement, and (3) Appreciation.

- a. Affect refers to either positive or negative emotions in response to specific triggers. There are several factors shaping how Affect can be classified: (1) cultural views on emotions, (2) mode (internal or external) of emotional expression, (3) degree of emotional trigger, (4) emotional intensity level, (5) emotional causation (intentional or reactive) nature, and (6) alignment with emotion categories (happiness, satisfaction, dissatisfaction, etc.)
- b. Judgement is an evaluation of behavior either positively or negatively, through praise or criticism. It is divided into two main types namely, social esteem and sanction. While, social esteem includes assessments of uniqueness, competence, and persistence, social sanction focuses on truthfulness and morality. These judgements reflect how individuals and their actions are perceived within a social and ethical framework.

- c. Appreciation involves evaluating objects, performances, and texts based on their emotional impact, structure, and worth. It includes three main aspects, namely reaction (degree of emotional engagement), composition (balance, complexity, and clarity), and valuation (cultural and intellectual significance). This help determine how valuable a phenomenon is, either positively or negatively.

In conclusion, attitude refers to either a sentiment or viewpoint toward something/someone or a manner of conduct that arises from it. Furthermore, attitude is suggested to exist in pairs, influenced by environmental factors. Finally, it is also depicted as complex amalgamations of emotions, beliefs, and behaviours, shaped by individual and environmental influences.

2.2 Language Learning

Language learning is a process to develop the ability to perceive, comprehend, and use a language. In this process, individuals learn to identify, understand, and produce words and sentence to communicate messages. It involves frequently deliberate actions and behaviors employed by language learners to improve and facilitate language acquisition, as well as store, retrieve, and apply information (Hardan, 2013). Since humans have the ability to learn multiple languages, any language acquired after early childhood is considered a second language (Mitchell et al., 2019). This includes the third, fourth, or fifth language, spoken in various settings such as schools, workplaces, etc.

Over the past century, language education has put emphasis on the development of syllabuses, teaching methods, and instructional materials (Richards, 2017). In addition to designing effective contents, considerable efforts have also been given to teacher training, focusing on creating classroom environments that support authentic

communication and meaningful learning. In addition, the technological advancement has also brought significant impacts and transformed the language learning process by providing unlimited resources and various learning aids (Raharjo et al., 2024). This demonstrates a belief that structured content and teacher facilitation are central to successful language learning.

2.3 The Use of Machine Translation in English Academic Writing

Mastery in academic writing is necessary for university students, especially the ones in English language department, to achieve both academic and professional goals (Ratnawati et al., 2018). Academic writing serves as a medium to share knowledge to wider audiences. High-quality academic writing should demonstrate evidence-based reasoning, critical thinking, objectivity, and formality (Knight et al., 2020). Throughout the writing process, students must carefully select their content, ideas, and sources to support their arguments (Rahmat et al., 2020). This process requires a cognitive effort in which students engage in academic discourse and develop their ideas within the boundaries of their subject or discipline (Juniardi, 2016). In addition, the quality of writing can also be observed from its initial stages, beginning with idea generation and planning, and continuing through the careful construction of words into a coherent and well-structured composition (Witari & Mahardika, 2024). Therefore, developing strong academic writing skills enables students to communicate ideas and arguments effectively, think critically, that leads to success in both academic and professional settings.

The use of MT in academic writing has emerged as a trend. Studies found that it provides positive influences toward students' writing quality in various aspects. A study from Tsai (2019) found

that EFL students could produce writing drafts with more advanced vocabularies and fewer grammatical and spelling errors when MT was involved in the writing process. Similarly, Kol et al. (2018) found that students in English for Academic Purposes (EAP) course wrote longer and more complex texts when they were assisted by MT. This also improves the vocabulary and sentence structure aspects in their writing, especially among advanced learners. The findings of studies demonstrate how MT can be an effective tool to enhance writing quality.

Google Translate has emerged as a powerful technological innovation in Machine Translation system and as a valuable educational tool to bridge multilingual context. Developed by Google, this MT facilitates across more than 100 languages, and becomes one of the most accessible and impactful system globally (Johnson et al., 2017; Prates et al., 2020). Initially based on Statistical Machine Translation (SMT) relying on probability models to predict accurate translation, Google Translate shifted to Neural Machine Translation (NMT) in 2016, and significantly improves its translation accuracy by reducing errors nearly 60% through human-evaluated sentence comparisons (Groves & Mundt, 2015; Yamada, 2019). In addition to its technical advancement, Google Translate also increasingly plays important role in language learning. This MT has supported students in overcoming grammatical challenges, improving vocabulary, refining writing and speaking skills, and fostering deeper comprehension of foreign terms through features like voice recognition, full-page translation, and synonym identification (Chandra & Yuyun, 2018; Krisnawati, 2017; Medvedev, 2016; Murtisari et al., 2019). In addition, strategic use of one's first language (L1) through tools like Google Translate may lessen cognitive load, reduce learning anxiety, and enhance learner confidence and motivation during

the drafting stages of writing (Tsai, 2022). Therefore, Google Translate serves as not only a technological innovation but also a valuable educational tool in multilingual contexts.

3. RESEARCH METHODOLOGY

This research aims to examine (1) the roles of MT, specifically Google Translate, and (2) students' attitudes toward its usage in academic writing. To achieve these objectives, this study employed a qualitative research design. As qualitative research seeks to understand and interpret rather than predict or control variables, it is well-suited for exploring learners' subjective experiences and perspectives (Creswell & Creswell, 2023; Nassaji, 2020). The contextual and interpretative nature of qualitative inquiry allows for a deeper investigation into the developmental patterns of students' attitudes rather than focusing solely on measurable outcomes.

The data of this study were obtained through a mixed ended questionnaire distributed to English Language Department students at Bunda Mulia University. It consists of both close-ended and open-ended questions focusing on the perceived role and effectiveness of Google Translate to support students in academic writing tasks. These questions explore various aspects of learner experience. This includes the practical use Google Translate by students with lower English proficiency and its role in encouraging a more autonomous and self-directed writing process.

The population of this research included all English Department students at Bunda Mulia University. However, the sample was limited to students in the 6th and 8th semesters who had chosen "Translation" academic stream. These participants were selected based on their familiarity with the research topic, their ability to communicate their experiences effectively, and their willingness to

engage with the study. These backgrounds made them suitable for providing responses regarding the attitudes toward Google Translate and its influence on their language learning process.

To analyze the data, this study employed thematic analysis technique. This technique involves using limited frameworks, interpreting the data, and categorizing information into themes (Creswell & Creswell, 2023). First, the result from both close-ended and open-ended questions were examined. Then, recurring patterns and themes were identified to determine whether the participants expressed (1) positive, (2) negative, or (3) mixed attitude toward the use of Google Translate in academic writing. A similar process was repeated within the process of identifying the perceived roles of Google Translate in academic writing.

4. FINDINGS & DISCUSSION

This section elaborates the findings and discussions of this research, namely (1) the roles of MT and (2) students' attitude toward its use in academic writing contexts.

4.1 The Roles of MT in Academic Writing

The data analysis result shows that MT, specifically Google Translate, has several roles in academic writing. These roles can be categorized mainly into (a) a writing assistant and (b) a dictionary, as shown in Table 1 below.

Table 1. Roles of MT in Academic Writing

Categories	Roles
Writing Assistance	Decrease spelling and grammatical errors
	Enhance English writing skill
	Improve the English writing accuracy
Automatic Dictionary	Comprehend English words more effectively
	Translate documents
	Find synonyms of certain English words

The first role of Google Translate as a writing assistant is decreasing spelling and grammatical errors. Based on the Figure 1 below, the majority of this research participants appears to approve the use of Google Translate to reduce spelling and grammatical errors.

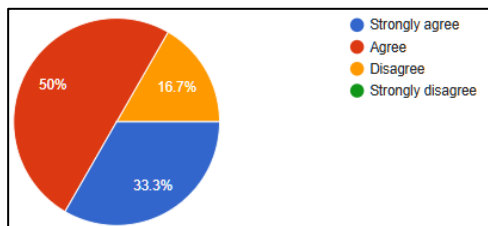


Figure 1. Using Google Translate to decrease spelling and grammatical errors

rules. This led to an increase in confidence in writing process.

Finally, as a writing assistant, Google Translate is believed to help students in writing English content accurately. This finding is shown in Figure 3 below.

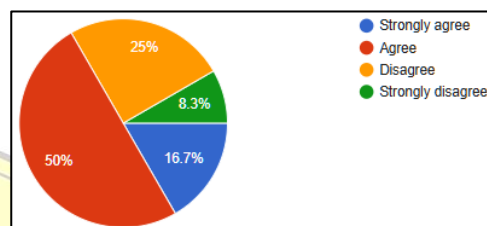


Figure 3. Using Google Translate to accurately writing content in English.

In addition, this majority of participants also stated that Google Translate could be used to check the proper spelling and usage of particular words when they were unsure about those things. Furthermore, they also emphasized that the real-time translation and editing features of Google Translate were useful for learning grammatical structure because it provides instant feedback on any misspellings or grammatical errors.

The second role is enhancing English writing skills. The questionnaire result shows that students admitted to have enhanced their English writing skill by using Google Translate as their writing assistance. It is shown in Figure 2 below.

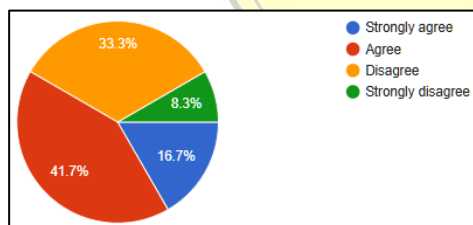


Figure 2. Using Google Translate to enhance English writing skill.

This role is also related to the previous role which stated that Google Translate was useful to reduce grammatical and spelling errors. Furthermore, the participants also stated that they could learn how to express themselves clearly in various writing styles and genres by observing how writings written in their first language were translated into English in various circumstances. Thus, this supports the idea that MT is a valuable aid in language learning process.

Besides its role as a writing assistant, Google Translate is also perceived as an automatic dictionary by students due to its original function. As an First of all, this MT is perceived by students to have helped them in comprehending English words more effectively. Based on Figure 4, it can be seen that the majority approves this role.

The majority stated that Google Translate could help them to apply and comprehend complex grammatical structures and its

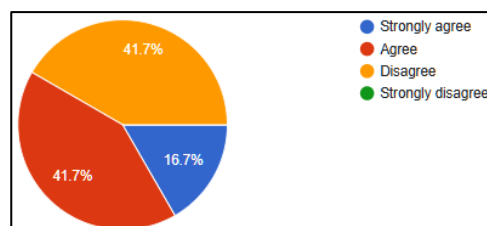


Figure 4. Using Google Translate Comprehend English Words More Effectively

The majority of the participants stated that Google Translate supports side-by-side language comparisons. This feature could help them to quickly discern the word and structural correspondences between their first language and its English translation when they were comparing texts in both languages. They also believed that this led to improve their vocabulary retention and in understanding sentence structure.

Then, Google Translate is also perceived to have helped students in translating documents. Figure 5 below shows that this role is approved by the majority of the students.

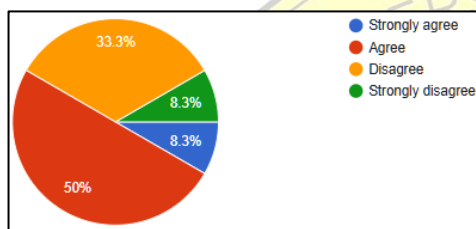


Figure 5. Using Google Translate to translate documents

According to the majority of participants, this role exists due to the feature which enables users to submit a document file straight into the Google Translate system. This feature can translate the whole documents into the target language at one. Thus, students could focus on refining their translation result. They stated that this feature has saved them a lot of time.

Finally, as an automatic dictionary, Google Translate is also perceived to have assisted students in finding synonyms of certain English words. Although it is shown in Figure 6 below more than half numbers of the participants disagree with this role, the rest of participants appear to still agree with this perspective.

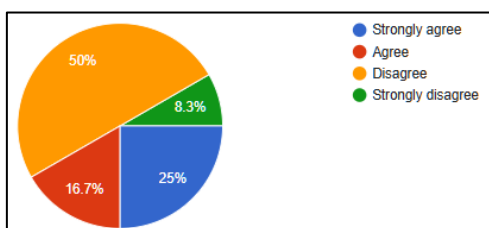


Figure 6. Using Google Translate to find synonyms of certain English words.

This indicates that students often used this MT only to find a word that is the most equivalent to their source word. Furthermore, they added that they would not search for other similar words once they saw the top translation. In addition, many of them stated to have run into circumstances when the synonyms provided were not only improper, but also caused miscommunications or writing errors. Thus, this supports the idea that one should not always rely on Google Translate to identify the best synonyms for improving academic writing quality.

In conclusion, as a Machine Translation, Google Translate is perceived to have significant roles in the learning process of composing an academic writing. The data from the questionnaire shows that the participants, who are students of English Language Department at Bunda Mulia University, agree with the perceived roles presented in Table 1 above. In addition, this finding also aligns with the results of previous study by Fibriana et al. (2021), which stated that Google Translate played significant roles in assisting students throughout the academic writing process, including translating words, composing sentences, correcting grammatical errors and misspelling, and even correcting sentence structures. Therefore, it can be summarized that Google Translate has vital roles in the students' learning process of academic writing.

4.2 Students' Attitude Toward the Use of MT in Academic Writing

Based on the data analysis, three types of attitudes are identified regarding the use of MT in Academic Writing. These include (1) Appreciation, (2) Judgement, and (3) Affect.

4.2.1 Appreciation

Appreciation refers to positive regards, recognitions, or gratitude that

individuals feel toward specific objects or phenomena (Martin & White, 2005). There several subtypes of Appreciation, including reaction, composition, and valuation.

The analysis result toward students' response within the questionnaire shows that their answer matches the "valuation" subtype, although it is in a negative way. In other words, it shows that students believed that Google Translate is ineffective. One of the examples is shown in the Excerpt 1 below.

I have mixed thoughts about this question. Google Translate can help you in academic writing but I suggest to not depend on it because they have "general" vocabulary, whereas in academic writing, you have to use "academic" vocabulary. If you want to simply translate a passage or sentence to include in your academic writing using Google Translate, the result should go through a post editing process where you change the more general words to their academic counterparts. (Excerpt 1)

It is stated that Google Translate could only be used to deal with general stuff. In addition, it is also noted that Google Translate could not always provide contextually appropriate or accurate translation, despite its effectiveness in translating texts in general contexts. For examples, Google Translate may lack of information when providing synonyms for particular words or vocabularies. Finally, it is also stated that a post-editing was required if Google Translate was involved in the academic writing process for a better quality of writing.

Another example is shown in Excerpt 2 below. This student reflected the possible usefulness of Google Translate in composing English writings.

I don't think Google Translate result is 100% accurate, because the result of Google Translate is often word-for-word or literal, especially in translating idioms, the result often literal definition of the word. However, the strength of Google Translate lies in its ability to deliver quick results. (Excerpt 2)

It is stated that quick results, which is the strength of Google Translate, did not always mean accurate. In addition, this student perceived, based on his

observations and experiences, that this MT has a tendency to do word-to-word and literal translation. Thus, it renders its ineffectively in academic writing context.

4.2.2 Judgement

Judgement is elaborated as a form of evaluation toward specific objects, people, or events based on beliefs, perceptions, or reasoning processes of an individual (Martin & White, 2005). The judgment type is categorized into social esteem and social sanction. Social esteem encompasses normality, capacity, and tenacity. Meanwhile, social sanction encompasses veracity and property.

Based on the analysis result, it is found that most answers fall into the category of subtype "negative tenacity". This indicates that students most likely perceived Google Translate as being not always reliable. One of the examples is shown in Excerpt 3 below.

I think using Google Translate can be helpful for giving you a general sense of the meaning of the content of Academic Writing, but I personally think it is not suitable if you use it in helping you writing an academic writing due to its limitation in accuracy. Also, in writing an Academic writing, it requires critical thinking and the depth of understanding of the topic you want to write, which I believe Google Translate may not accurately convey. (Excerpt 3)

It is believed Google Translate could be helpful as a supplementary tool for translating basic words and phrases. However, since Academic Writing requires more complex, critical, and in-depth contents and aspects compared to other types of writing, relying on Google Translate to deal with those aspects may not be reliable.

Another example is shown in Excerpt 4 below. This student suggested other aids perceived as a more reliable one for academic writing purposes.

I don't really rely on Google Translate because the results are sometimes unreliable, but instead, I use another platform to translate which is DeepL Translation because the results are more natural, and it also can translate idioms. Additionally, I rely on online dictionaries like Oxford Dictionaries to find the meaning of the word. (Excerpt 4)

The answer in Excerpt 4 showed that the results of Google Translate could not always be fully relied when it comes to Academic Writing, because the results might not always be equivalent. Thus, opening an alternative to use other sources or aids could be a better approach.

4.2.3 Affect

Affect is described as feelings or emotional reactions, usually positive and negative, that individuals have towards specific subjects, people, or events (Martin & White, 2005). Affect is also categorized into three subtypes, namely (1) happiness and unhappiness, (2) security and insecurity, and (3) satisfaction and dissatisfaction.

According to the answers given by the participants, it can be concluded that the answers showed the subtype "dissatisfaction" towards the use of Google Translate in academic writing. One student noted that Google Translate sometimes made mistakes in translating particular words. It indicates that this MT might have done the translation without taking account into the context, resulting in a messy and chaotic translation. Meanwhile, another student noted that Google Translate could be inaccurate and required adjustments. This student also added that it was possible because this MT relies on algorithms rather than language understanding.

Those dissatisfaction and attitude toward Google Translate affected students' confidence in academic writing. The majority of the students agreed that they felt confident when writing without Google Translate. In addition, one student even argued that composing an academic writing without the help of Google Translate meant that he was fully engaging with the language and content, through which he could improve his understanding and increase his critical thinking in writing. This indicates students most likely tried to not depend on MT, especially Google Translate.

In conclusion, the findings indicate that the overall attitude of students toward the use of Google Translate in academic writing is predominantly negative. Most participants expressed dissatisfaction with its output, citing frequent errors and inaccurate translations that hindered the effective delivery of their intended messages. This result is consistent with the findings of Tongpoon-Patanasorn (2020), who also reported major linguistic issues in the output produced by Google when translating Thai abstracts into English. Their study identified a wide range of recurring errors, including inaccuracies in punctuation, capitalization, sentence fragments, lexical choices, prepositions, articles, reference, agreement, repetition, sentence structure, word form, pronouns, and conjunctions. These errors significantly compromised the clarity and quality of the translated texts. Therefore, while Google Translate may assist in generating draft translations, it cannot be considered a fully reliable or effective machine translation tool for academic writing, as it often fails to produce accurate and equivalent renditions of the source text.

5. CONCLUSION

There are several conclusions can be drawn from the findings of this research. First, the analysis of the students' responses reveals mixed attitudes towards the use of Google Translate in academic writing. The study identified three types of attitudes, namely appreciation, judgment, and affect. The elaboration of each type indicates that the majority of students felt more confident when writing without the help of Google Translate because they could engage more with the language and could help them improve their critical thinking skill, especially because critical thinking is very much needed in Academic Writing. Furthermore, despite the criticisms, students recognized the benefits of using Google Translate in reducing spelling and

grammatical errors, as well as improving their English writing skills. It was also considered useful for understanding word meanings and composing content more accurately, although it was less effective for finding synonyms. Additionally, the “Translate Document” feature was appreciated for its practicality in translating full texts. These findings align with previous research, indicating that while Google Translate supports students’ academic writing, it should be used with caution and complemented by other reliable translation tools and learning strategies.

6. ACKNOWLEDGEMENT

The researchers would like to express sincere gratitude to the students of the English Department at Bunda Mulia University for their participation and valuable insights. Appreciation is also extended to the lecturers and academic staff who supported the completion of this research.

REFERENCES

- Abdullaev, Z. K. (2021). Second language learning. *Mental Enlightenment Scientific-Methodological Journal*, 2021(06).
- Ajzen, I., Fishbein, M., Lohmann, S., & Albarracín, D. (2018). The influence of attitudes on behavior. In *The Handbook of Attitudes: Basic Principles* (2nd ed., Vol. 1). Routledge.
- Amin, A. (2020). Attitude towards language in Sociolinguistics settings: A brief overview. *REiLA : Journal of Research and Innovation in Language*, 2(1), 27–30. <https://doi.org/10.31849/reila.v2i1.3758>
- Aulia, R., Destari, D., & Komariah, A. (2024). Students’ perception of using Google Translate at English Education Department UINSI Samarinda. *El-Syaker : Samarinda International Journal of Language Studies*, 1, 33–41. <https://doi.org/10.64093/esijls.v1i1.10>
- Bahri, H., Sepora, T., & Mahadi, T. (2016). Google Translate as supplementary tool for learning Malay: A case study at Universiti Sains Malaysia. *Advances in Language and Literary Studies*, 7(3), 161–167. <https://journals.aiac.org.au/index.php/all/article/view/2305>
- Briggs, N. (2018). Neural machine translation tools in the language learning classroom: Students’ use, perceptions, and analyses. *The JALT CALL Journal*, 14(1), 3–24. <https://doi.org/10.29140/jaltcall.v14n1.j221>
- Chandra, S. O., & Yuyun, I. (2018). The use of Google Translate in EFL essay writing. *LLT Journal: A Journal on Language and Language Teaching*, 21(2), 228–238. <https://doi.org/10.24071/llt.v21i2.1539>
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- Fibriana, I., Ardini, S. N., & Affini, L. N. (2021). Google Translate and its role in academic writing for university students. *Journal of Advanced English Studies*, 4(1).
- Groves, M., & Mundt, K. (2015). Friend or foe? Google Translate in language for academic purposes. *English for Specific Purposes*, 37, 112–121. <https://doi.org/10.1016/j.esp.2014.09.001>
- Habók, A., & Magyar, A. (2018). The effect of language learning strategies on proficiency, attitudes and school achievement. *Frontiers in Psychology*, 8. <https://doi.org/10.3389/fpsyg.2017.02358>

- Hardan, A. A. (2013). Language learning strategies: A General overview. *Procedia - Social and Behavioral Sciences*, 106, 1712–1726. <https://doi.org/10.1016/j.sbspro.2013.12.194>
- Jain, V. (2014). 3D model of attitude. *International Journal of Advanced Research in Management and Social Sciences*, 3(3). https://www.researchgate.net/publication/265567380_3D_Model_of_Attitude
- Johnson, M., Schuster, M., Le, Q. V., Krikun, M., Wu, Y., Chen, Z., Thorat, N., Viégas, F., Wattenberg, M., Corrado, G., Hughes, M., & Dean, J. (2017). Google's multilingual neural machine translation system: Enabling zero-shot translation. *Transactions of the Association for Computational Linguistics*, 5, 339–351. https://doi.org/10.1162/tacl_a_00065
- Jolley, J. R., & Maimone, L. (2022). Thirty years of machine translation in language teaching and learning: A review of the literature. *L2 Journal*, 14(1). <https://doi.org/10.5070/L214151760>
- Juniardi, Y. (2016). ESL students' critical thinking and their academic writing skill. *KOLITA 14: Konferensi Linguistik Tahunan Atma Jaya Keempat Belas*, 72–76. <https://lib.atmajaya.ac.id/default.aspx?tabID=61&id=203421&src=k>
- Knight, S., Shibani, A., Abel, S., Gibson, A., & Ryan, P. (2020). AcaWriter: A learning analytics tool for formative feedback on academic writing. *Journal of Writing Research*, 12(vol. 12 issue 1), 141–186. <https://doi.org/10.17239/jowr-2020.12.01.06>
- Kol, S., Scholnik, M., & Spector-Cohen, E. (2018). Google Translate in academic writing courses? *The EuroCALL Review*, 26(2), 50. <https://doi.org/10.4995/eurocall.2018.10140>
- Krisnawati, N. L. P. (2017). The role of Google Translate for Indonesian EFL learners. *Proceedings of ISELT FBS Universitas Negeri Padang*, 138–143.
- Lee, S.-M. (2020). The impact of using machine translation on EFL students' writing. *Computer Assisted Language Learning*, 33(3). <https://doi.org/10.1080/09588221.2018.1553186>
- Lieshout, C. van, & Cardoso, W. (2022). Google Translate as a tool for self-directed language learning. *Language Learning and Technology*, 26(1). <https://www.lltjournal.org/item/10125-73460/>
- Mahardika, R. (2017). The use of translation tool in EFL learning: Do machine translation give positive impact in language learning? . *Pedagogy: Journal of English Language Teaching*, 5(1), 49. <https://doi.org/10.32332/pedagogy.v5i1.755>
- Martin, J. R., & White, P. R. R. (2005). *The language of evaluation: Appraisal in English*. Palgrave Macmillan.
- Medvedev, G. (2016). Google Translate in teaching English. *Journal of Teaching English for Specific and Academic Purposes*, 4(1). <https://espeap.junis.ni.ac.rs/index.php/espeap/article/view/318>
- Mitchell, R., Myles, F., & Marsden, E. (2019). *Second language learning theories* (4th ed.). Routledge.
- Murtisari, E. T., Widiningrum, R., Branata, J., & Susanto, R. D. (2019). Google Translate in language learning: Indonesian EFL students' attitudes. *The Journal of AsiaTEFL*, 16(3), 978–986. <https://doi.org/10.18823/asiatefl.2019.16.3.14.978>

- Nassaji, H. (2020). Good qualitative research. *Language Teaching Research*, 24(4), 427–431. <https://doi.org/10.1177/1362168820941288>
- Prates, M. O. R., Avelar, P. H., & Lamb, L. C. (2020). Assessing gender bias in machine translation: a case study with Google Translate. *Neural Computing and Applications*, 32(10). <https://doi.org/10.1007/s00521-019-04144-6>
- Pratolo, B. W. (2017). Exploring Indonesian learners' beliefs about language learning strategies through reflection. In *Monash University* (Issue November). https://bridges.monash.edu/articles/thesis/Exploring_Indonesian_learners_beliefs_about_language_learning_strategies_through_reflection/4711927?file=16725761
- Puspita, D., & Pranoto, B. E. (2021). The attitude of Japanese newspapers in narrating disaster events: Appraisal in critical discourse study. *Studies in English Language and Education*, 8(2), 796–817. <https://doi.org/10.24815/siele.v8i2.18368>
- Raharjo, Y. M. R. D., Hasibuan, A. R., & Natasha, K. (2024). Video Project Activity And Freshmen's Learning Autonomy in Intermediate Speaking Course. *TELL-US Journal*, 10. <https://doi.org/10.22202/tus.2024.v10i2.7875>
- Rahmat, N. H., Aripin, N., Maizura Lin, N., Whanchit, W., & Khairuddin, Z. (2020). Exploring the connection between critical thinking skills and academic writing. *International Journal of Asian Social Science*, 10(2), 118–128. <https://doi.org/10.18488/journal.1.2020.102.118.128>
- Ratnawati, R., Faridah, D., Anam, S., & Retnaningdyah, P. (2018). Exploring academic writing needs of Indonesian EFL undergraduate students. *Arab World English Journal*, 9(4), 420–432. <https://doi.org/10.24093/awej/vol9n04.31>
- Richards, J. C. (2017). *Interchange: Student's book* (5th ed.). Cambridge University Press.
- Tongpoon-Patanasorn, A. (2020). Google Translate and translation quality: A case of translating Academic Abstracts from Thai to English. *PASAA*, 60(1), 134–163. <https://doi.org/10.58837/CHULA.PASAA.60.1.5>
- Tsai, S.-C. (2019). Using google translate in EFL drafts: a preliminary investigation. *Computer Assisted Language Learning*, 32(5–6), 510–526. <https://doi.org/10.1080/09588221.2018.1527361>
- Tsai, S.-C. (2022). Chinese students' perceptions of using Google Translate as a translingual CALL tool in EFL writing. *Computer Assisted Language Learning*, 35(5–6), 1250–1272. <https://doi.org/10.1080/09588221.2020.1799412>
- Witari, P. S., & Mahardika, A. A. A. (2024). The lecturers' written corrective feedback in writing classes: University students' opinions and preferences. *Journal of English Language and Culture*, 15(1), 29–48. <https://journal.ubm.ac.id/index.php/english-language-culture/article/view/6303>
- Yamada, M. (2019). Impact of Google Neural Machine Translation on post-editing by student translators. *The Journal of Specialised Translation*, 31, 87–106. <https://doi.org/10.26034/cm.jostrans.2019.178>