UKM ESL Undergraduate Students' Perceptions of Using Google Translate when Reading English Academic Text: Values and Challenges

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Abstract
Reading skill is one of the essential language skills in language learning, especially for the English as a Second Language (ESL) learners in higher education. The integration of Google Translate acts as a learning tool that helps ESL learners in reading English academic text. This study aims to identify UKM ESL undergraduate students' perceptions on values and challenges of using Google Translate when reading English academic texts. This study employed a mixed-method research design by using questionnaires and interview sessions to collect the data. 375 respondents participated in a questionnaire, and 6 participants participated in interview sessions. The findings revealed that Google Translate helps the students to provide very quick translations for texts and saves time, meet all their needs in terms of translating from English to their native languages and vice versa, and enhance their understanding when reading English academic texts. However, Google Translate provides inaccurate or inappropriate meanings of words, contextual misunderstandings and error connections as the difficulties faced by the students. This study shows that Google Translate is a useful tool that acts as a learning aid for the students in their studies. Therefore, this study has significant implications for ESL students, where Google Translate assists them in understanding English academic text, and for translation developers to enhance the functionality and accessibility of Google Translate to provide accurate outcomes.
Keywords: Reading, Google Translate, English Academic Texts, ESL Undergraduate Students, Perceptions

Introduction
        Reading skill is one of the essential language skills in language learning, especially for the English as a Second Language (ESL) learners in higher education. Reading is considered one of the most difficult language skills for ESL learners to acquire since it necessitates their subconscious interaction with authors through a variety of cognitive and metacognitive techniques, including summarising, analysing, and predicting (Ali & Razali, 2019). Reading involves not just identifying letters or words and accurately pronouncing or arranging them but, more crucially, it involves being able to comprehend the meanings behind these arrangements (Muhamad et al., 2020). This means that there is interaction between the

reader, the text, the activity, and the larger sociocultural context through the reading process. Proficiency in reading is vital for academic success, as it enables students to comprehend, analyse, and synthesise information effectively (Grabe, 2009). This is because ESL learners are regularly required to interact with scholarly writings, such as research papers and journal articles, in higher education (Li et al., 2024). However, many ESL learners face significant challenges in decoding and interpreting academic texts due to limited vocabulary and unfamiliar sentence structure (Aziz & Kshinathan, 2021). This led to the use of the technological tool that assists the learners with their academic readings.

Today's technological advancements have found their place in the sphere of education. Google Translate is the most popular machine translation tool that is used by the ESL higher education students. According to Pitman (2021), Google Translate is the most popular machine translation engine used around the world, with 1 billion Google Translate applications installed using Android. In the educational field, students use Google Translate for their studies, especially when learning languages, which encompasses speaking, writing, listening, and reading. According to Shahriar (2023), Google Translate is a helpful resource for learning English vocabulary, sentence structures, spelling, pronunciation, and the meaning of complicated sentences. A study from Habeeb & Muhammed (2020) found that Google Translate was an easy and fast tool to translate the text, along with the ESL learners gaining vocabulary knowledge, especially for the low English proficiency learners, where they could easily understand the English sentences when using Google Translate as their learning aid. However, ESL learners also face challenges when using Google Translate to read academic English texts because it sometimes produces incorrect contextual meaning and has problems with jargon or technical terms (Alharbi, 2023).

Despite its widespread use, little is known on how well Google Translate works in academic reading circumstances, especially when it comes to how students view its values and challenges when dealing with English lecture notes and scholarly articles, as most of the past research conducted only focused on using Google Translate in reading English text for English classes, such as reading comprehension. It is well known that English is used as a medium of instruction in Malaysian higher education. Science, technology, engineering, and mathematics (STEM) programmes, as well as most other courses offered in Malaysia's public universities, use English for their materials, assignments, and assessments. One of the main ways to help the Malaysian Ministry of Higher Education (MoHE) reach its goal of making Malaysia a premier international centre for higher education and drawing at least 250,000 international students to Malaysian universities by 2025 is to become proficient in the English language in higher education (Munusamy & Hashim, 2019).

These concerns are significant, as students usually have to cope with the academic texts in complex English as part of their studies. Google Translate might help them get beyond language difficulties for a while, but it might also make it harder for them to read and think critically. This study will be beneficial for undergraduate students, teachers, educators, and the institution generally. It can help ESL undergraduate students clarify their intention of using Google Translate when reading English academic text. The clarification of their intention can help them to address different challenges due to different purposes in using Google Translate when reading English academic text, such as using Google Translate to acquire vocabulary and comprehend complex sentence structure.

Furthermore, the significance of this study lies in its ability to provide an in-depth understanding of the attitudes, convictions, and perspectives on the values and challenges that UKM ESL undergraduate students have in using Google Translate when reading English academic text. It can also help administrators and educators make decisions about integrating technology into language instruction by having insight into and understanding of ESL undergraduate students' perceptions. This can help to design support systems that cater to the requirements and preferences of ESL students and create a more effective and inclusive learning environment. It is also able to resolve student concerns and promote positive attitudes. Therefore, this study aims to bridge the gap by identifying UKM ESL undergraduate students' perceptions on the values and challenges of using Google Translate when reading English academic texts.

There are two main research objectives and questions that are stated as follows:

Research Objectives
1. To identify the perceptions of UKM ESL undergraduate students on the values of using Google Translate when reading English academic text.
2. To identify the perceptions of UKM ESL undergraduate students on the challenges of using Google Translate when reading English academic text.

Research Questions
1. What are the perceptions of UKM ESL undergraduate students on the values of using Google Translate when reading English academic text?
2. What are the perceptions of UKM ESL undergraduate students on the challenges of using Google Translate when reading English academic text?

Literature Review
Technology Acceptance Model (TAM)
The Technology Acceptance Model (TAM) was introduced by Fred Davis (1989) to explain user acceptance behaviour. TAM aims to understand and predict their behaviour while adopting technology by analysing the opinions and attitudes of users. There are four main components in TAM, which are perceived ease of use (PEOU), perceived usefulness (PU), attitude, and behavioural intention to use. Perceived usefulness is the extent to which an individual believes using a particular technology enhances performance. Perceived ease of use is the extent to which an individual believes that utilising a specific technology is effortless. Attitude towards behaviour is the extent to which an individual believes engaging in a behaviour is either positive or negative. Behavioural intention refers to an individual's willingness to adopt and utilise a technology based on how easy and beneficial they think it is.

In this study, TAM has been employed to identify the ESL undergraduate students' perceptions on the values and challenges of using Google Translate when reading English academic texts. Perceived usefulness (PU) indicates how much ESL students believe Google Translate could improve their academic reading abilities by assisting them in understanding English texts, saving them time, and enhancing their self-esteem. Google Translate's perceived ease of use (PEOU) refers to how user-friendly it is for ESL students, including factors like speed, device compatibility, and interface. The challenge, such as unclear

interpretations or mistranslations, could negatively affect PEOU because both PU and PEOU have an impact on a student's attitude towards behaviour, which is their attitude towards technology. Students will show a positive attitude towards the use of Google Translate in academic settings if they believe it to be both efficient and user-friendly.

Reading in Higher Education

Academic reading is a crucial skill that helps students acquire, comprehend, and apply scholarly information which is often provided in technical or abstract language (Urquhart & Weir, 1998). Academic reading is distinct from other forms of reading because it is critical, purposeful, and complex (Sengupta, 2002). Proficiency in both general and academic vocabulary is necessary for understanding academic texts (Choo et al., 2017). According to Meganathan et al. (2019), good language learning and usage depend on having a sufficient vocabulary. Students are required to read and comprehend research papers, textbooks, and scholarly articles to produce well-informed essays, reports, and presentations. This is because reading in higher education requires the growth of critical thinking and analytical skills.

Most English as a second language countries employ English as a medium of instruction in higher education institutions where all the lectures, assignments and examinations are conducted in the English language. This execution causes some challenges for the ESL learners when reading English academic text. According to Sulaiman et al. (2020), ESL learners find it difficult to understand the text due to the unfamiliar words and lack of vocabulary knowledge. This is in line with the research conducted by Anwar & Sailuddin (2022), which found that it was frequently stated that the hardest part of reading was understanding academic vocabularies, where most ESL learners reported struggling to translate and comprehend complex and formal terms. Furthermore, it is challenging for ESL learners to comprehend academic texts due to their limited vocabulary and difficult grammatical patterns. The use of formal language and specific vocabulary in academic texts can make them inaccessible to students with limited language proficiency (Chen, 2020).

The Values of Using Google Translate when Reading English Academic Text

The implementation of Google Translate as a learning tool is beneficial, especially for the ESL learners when they need to read the academic materials in the English language, such as scholarly articles, journals, assignments and lecture notes. A study from Margiana and Syafryadin (2023) revealed that Google Translate is a valuable tool that helps the learners to complete the assignments and comprehend the complex texts. The study by Habeeb (2020) revealed that Google Translate is a rapid and convenient tool for translating texts, as well as providing quick understanding of English sentences for the ESL learners since the whole sentence can be translated at one time. According to Siahaan et al. (2022), the findings showed that the ESL learners showed positive attitudes towards Google Translate when reading English descriptive text because it is free and has a low cost of time and can translate the text faster than an open dictionary. In addition, the study by Lunic et al. (2020) revealed that the ESL learners showed a positive attitude towards the use of Google Translate in translating English Information Technology (IT) text, which is computer network text that is accurate and easily comprehends the meaning of the translated text that is evaluated based on the language adequacy, meaning, fluency, and severity.

The Challenges of Using Google Translate when Reading English Academic Text

Despite the values, there are also challenges faced by ESL learners in using Google Translate when reading English academic texts. Based on the research conducted by Siahaan et al. (2022), the findings revealed that the low quality and inaccurate translation for some texts, excluding words and phrases level, are the difficulties faced by the ESL learners when reading descriptive text. In addition, the study by Pham et al. (2022) revealed that most of the ESL learners faced semantic problems when using Google Translate, in which they had mistranslations of the translation's result that led to their confusion in understanding the text, especially when translating word-by-word, which contributed to different meanings with the messy vocabulary and omission of grammar. In addition, based on the research conducted by Tanasale (2023), the ESL learners faced challenges in using Google Translate when reading English academic text due to the dependence on the internet connection because Google Translate can be accessed with the aid of the internet connection, and it is unable to accurately interpret and modify meaning in spite of cultural background or context.

Methodology

Research Design

This study employed a mixed-method design approach, adopting a survey design using both quantitative and qualitative data to explore the UKM ESL undergraduates' perceptions on the values and challenges in using Google Translate when reading English academic text. According to Creswell (2014), survey designs are procedures in quantitative research in which investigators administer use a survey to a sample or to the entire population of people to describe the attitudes, opinions, behaviours, or characteristics of the population. Both quantitative and qualitative data were collected and analysed in this research. Mixed-method research combines quantitative and qualitative research techniques, methods, approaches, concepts, or language into a single study for the purpose of breadth and depth of understanding and corroboration (Creswell & Clark, 2010). The use of mixed methods enables researchers to thoroughly answer research questions and helps generalise findings and implications of the researched issues to the whole population (Enosh et al., 2014).

Research Sample/Participants

A random sampling technique is employed in this research where the participants, UKM ESL undergraduate students, are randomly selected. This random sampling technique can give the equal chance for the participants to participate in this study (Archara et al., 2013). Then, this random sampling technique is chosen in this study because it can be used in studies with many participants since this study consists of a large number of participants that participate in this study.

There are 375 UKM ESL undergraduate students from the National University of Malaysia (UKM) participating in answering the survey. The sample size was determined based on Krejcie and Morgan's (1970) table sample size. These students were selected because English serves as the primary medium of instruction and learning in higher education, especially in disciplines where course materials and assessments are delivered in English. Since English is their second language, this group is well-suited to the study's aim of examining their perceptions of its values and challenges when reading academic texts in English.

Six UKM ESL undergraduate students with different courses participated in the interview sessions to identify their perceptions on the values and challenges of using Google Translate when reading English academic text.

Data Collection Method/Instrumentation

The questionnaire used in this study is based on the Technology Acceptance Model (TAM) that is adopted from three past studies by Ghorianfar et al. (2023), Pham et al. (2022), and Brahmana et al. (2020). The questionnaire is divided into three sections: a) demographic background, b) the participants' values in using Google Translate, and c) the participants' challenges in using Google Translate. The 5-point Likert scale for arguments used in sections b) and c), where the participants need to choose between strongly agree, agree, neutral, disagree, and strongly disagree. The questionnaire is distributed through Google Forms due to its convenience in collecting the data and can be accessed anytime and anywhere by the participants. All the questions in the questionnaire from these past studies have been pilot-tested before the previous researchers conducted their study.

Furthermore, another instrument employed in this study is the interview. The interview sessions utilize open-ended questions that enable participants to provide their own responses freely. A total of 10 interview questions were used that are derived from the questionnaire. These questions aim to gain deeper insights into the perspectives of UKM ESL undergraduate students regarding their views on values and challenges of using Google Translate when reading English academic texts. As stated by Neuman (2000), open-ended questions are ideal for exploring a wide range of potential responses from participants. This approach ensures that participants' answers are based on their own experiences rather than being influenced by the researcher's perspective. There were 6 participants who took part in the interview sessions. These sessions were recorded by using a Zoom Meeting voice recording feature and transcribed by using a transcription tool for analysis. Participants were encouraged to share their responses freely, as long as their answers remain respectful and do not touch on sensitive matters such as race, religion, or other sensitive issues.

Data Analysis Method

The data from the questionnaire were transferred manually and analysed using the Statistical Package for the Social Sciences, or SPSS, software. SPSS is capable of handling huge amounts of data, doing all the analysis discussed in the text, and much more (Mahmoud Hassan Ali, 2016). A descriptive statistical analysis used to analyse the data, which will look at the mean, frequency and standard deviation of each of the items. The researcher then provides the table that consists of the items with mean differences to be analysed.

Next, the data from the interview questions were transcribed and then analysed manually to identify the consistency of the participants in answering the questions. The transcriptions of the data were analysed to gain any extended or different participants' answers from the questionnaire.

Findings and Discussion

This section presented the data from the questionnaire and interview session for the research questions. The data were analysed from the questionnaire that used a 5-point Likert

scale of agreement (1 = "strongly disagree"; 5 = "strongly agree") and the participants' answers from the interview sessions.

Research Question 1: What is the UKM ESL undergraduate students' perceptions on the values of using Google Translate when reading English academic text?

Table 1
UKM ESL undergraduate students' perceptions on the values of using Google Translate when reading English academic text

No.	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean Scores	Standard Deviation
1.	I feel more confident while using GT for text translation.	41 (10.9%)	63 (16.8%)	106 (28.3%)	83 (22.1%)	82 (21.9%)	3.27	1.28
2.	I prefer using the GT because it is free of charge and easy to use.	42 (11.2%)	61 (16.3%)	79 (21.1%)	112 (29.9%)	81 (21.6%)	3.34	1.29
3.	GT can provide very quick translation for texts and saves time.	34 (9.1%)	64 (17.1%)	92 (24.5%)	97 (25.9%)	88 (23.5%)	3.36	1.26
4.	I understand English sentences and passages better with the assistance of GT.	33 (8.8%)	69 (18.4%)	95 (25.3%)	109 (29.1%)	69 (18.4%)	3.30	1.22
5.	I feel satisfied with the results of the translation from GT.	34 (9.1%)	64 (17.1%)	106 (28.3%)	102 (27.2%)	69 (18.4%)	3.29	1.21
6.	GT has more benefits	37 (9.9%)	69 (18.4%)	92 (24.5%)	120 (32.0%)	57 (15.2%)	3.24	1.21

	than drawbacks.							
7.	GT is very effective for students of all levels of English proficiency.	35 (9.3%)	88 (23.5%)	83 (22.1%)	106 (28.3%)	63 (16.8%)	3.20	1.24
8.	It is faster to use GT than other tools.	33 (8.8%)	77 (20.5%)	92 (24.5%)	94 (25.1%)	79 (21.1%)	3.29	1.25
9.	GT can meet all my needs in terms of translating from English to my native language and vice versa.	36 (9.6%)	65 (17.3%)	82 (21.9%)	111 (29.6%)	81 (21.6%)	3.36	1.26
10.	GT can translate text effectively.	28 (7.5%)	76 (20.3%)	92 (24.5%)	118 (31.5%)	61 (16.3%)	3.29	1.18
11.	GT may alter the original meaning of a text.	38 (10.1%)	64 (17.1%)	91 (24.3%)	125 (33.3%)	57 (15.2%)	3.26	1.21
12.	I am not able to translate without using GT.	47 (12.5%)	96 (25.6%)	93 (24.8%)	85 (22.7%)	54 (14.4%)	3.02	1.25

Table 1 depicts the frequency counts, percentages, and mean scores for each item of the perceptions on the values of using Google Translate when reading English academic text. Based on table 1, there are two items, which are item 3 and item 9, that share the highest mean scores of (M = 3.36, SD = 1.26), respectively. As for item 3, 25.9% (n=97) of respondents agreed GT can provide very quick translation for texts and save time, while 24.5% (n=92) of respondents were unsure, 23.5% (n=88) of respondents strongly agreed, 17.1% (n=64) disagreed, and only 9.1% (n=34) of respondents strongly disagreed with the statement. Moreover, 29.6% (n=111) of respondents agreed with item 9, which is "GT can meet all my needs in terms of translating from English to my native language and vice versa." Meanwhile, 21.9% (n=82) of respondents were unsure, 21.6% (n=81) of respondents strongly agreed, 17.3% (n=65) of respondents disagreed, and only 9.6% (n=36) of respondents strongly

disagreed. However, item 12, which is "I am not able to translate without using GT", has the lowest mean score (M = 3.02, SD = 1.25). Based on item 12, there are 25.6% (n=96) respondents who disagreed with the statement, whereas there are 24.8% (n=93) respondents unsure, 22.7% (n=85) respondents agreed, 14.4% (n=54) respondents strongly disagreed, and only 12.5% (n=47) respondents strongly disagreed with the statement.

Apart from that, all participants mentioned that GT provides fast translation, and it could meet all their needs in terms of understanding the meaning of words or sentences in the interview session. The participants stated that:

"…it is easy to access. Then, it provides fast translation, as well as it helps to correct the sentence structure, especially when reading the articles or journals that have some of the complicated sentence structures with the grammatical errors."

(Participant 1)

"First, it provides fast translation. Then, it is easier for me to understand the meaning of the language."

(Participant 2)

"For me, it is really helpful to understand the lecture notes, especially for the examination which can also enhance my confidence during examination because I am not really fluent in English language."

(Participant 3)

"Firstly, it is convenient and provides fast translation that I can use anywhere at any time. It is not only useful for my main course but also for university courses such as English especially for the reading comprehension. It is also helpful to translate the synonym because it provides more than one translation. So, it is really helpful for me to understand the context and meaning of the words."

(Participant 4)

"It is useful for me if I do not understand the whole paragraph generally. So, when I use Google Translate to translate the paragraph, I can automatically understand the meaning of it despite the language component and sentence structure errors. So far, all words that I have translated meet my expectation to understand the meaning of words."

(Participant 5)

"So far, I'm really satisfied with the Google Translate's outcome. Because it directly translates into the meaning I can understand where sometimes it also provides the description and a few examples that can avoid confusion. It's really convenient for me. It is fast and provides a direct translation in which I can directly understand the meaning of the words."

(Participant 6)

First and foremost, the findings showed that the students believed that Google Translate could help them by providing very quick translations for texts and saving time. This is because the tool's Neural Machine Translation (NMT) technology feature enables it to process texts rapidly and generate accurate translations immediately (Wu et al., 2016). This

allows students to monitor their comprehension efficiently, which aligns with the monitoring process in the metacognitive reading strategies where students carefully decide when to employ GT to decode challenging words or sentences to improve their comprehension of complicated texts. This finding is in line with a past study conducted by Pham et al. (2022), which revealed that the features of Google Translate, which are user-friendliness, improved pronunciation, time efficiency, and multilingual translation capabilities, make it a useful tool for ESL learners in their language learning, especially when it comes to reading. In addition, the accessibility of Google Translate, which can be accessed through many devices such as smartphones, laptops, and tablets, is convenient for the students to use in different settings at any time, especially for students who often engage in academic reading in various contexts such as at home, in class, or during group studies. This can be seen that GT is a useful tool for the students for their academic learning, especially when they want to use it during an emergency or deal with academic texts that use a lot of high vocabulary. This flexibility is vital for students utilising adaptive metacognitive strategies, as they are able to incorporate GT into their reading practices based on situational needs (Zhang & Seepho, 2013). Furthermore, this finding is also on the same page as Phuong et al. (2021), who claim that the speed of Google Translate is especially helpful for students who face challenging academic texts under time limitations because it reduces the need to manually look up meanings or terms in traditional dictionaries.

Other than that, this finding can be analysed through the lens of TAM that can be attributed to the Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). The tool's speed and accuracy in translating words, phrases, and sentences support its value for ESL learners, especially when going through challenging academic texts. According to Margiana & Syafryadin (2023), this significantly reduces the cognitive burden and amount of time needed for translation activities. Moreover, Pham et al. (2022) found that the GT convenience helps in increasing the rate of student adoption by allowing them to carry out their academic tasks more successfully without being limited by their location or device.

Then, the students believed that Google Translate can meet all ESL undergraduate students' needs in terms of translating from English to their native language and vice versa. Students effectively employ GT to enhance their comprehension by organising, observing, and assessing their reading processes, which is aligned with metacognitive reading strategies (Zhang & Seepho, 2013). This is because the ESL students plan their English academic reading by identifying unfamiliar words or complex sentence structures that encourage them to use GT in their language learning. This is supported by Purnama (2022), stating that ESL learners can enhance their understanding and language skills with the multilingual function of Google Translate. In addition, GT enables students to monitor their comprehension while reading through immediate translation of new words and phrases to ensure that they do not encounter any major disruptions during their studies. This is in line with Van Lieshout (2022) finding that Google Translate's outcome meets ESL learners' needs in understanding the phrases by using Google Translate. Wati (2020) also stated that Google Translate helps students to translate English text to their mother language or vice versa, where the ESL learners can easily and directly know about the meaning of unknown words or complicated sentences. Similarly, a study conducted by Ameilia (2023) revealed that Google Translate helps the ESL learners to translate and find the unfamiliar words in the English text. This is because of Google Translate's ability to simplify language by reducing complicated structures

into simpler forms in which the students can better understand complex ideas (Margiana & Syafryadin, 2023). It is due to the use of high-vocabulary words in the lecture notes and journal articles that sometimes interrupts the reading process of comprehending the meaning of the contents.

However, the finding with the least mean score revealed that the majority of the UKM ESL undergraduate students disagree that they are unable to translate without Google Translate, which shows that they are not over-reliant on using Google Translate when reading English academic text, as GT only acts as their supplementary tool in the academic learning, which demonstrates a deliberate blending of technology with their current language proficiency and comprehension abilities. This supports a study by Margiana and Syafryadin (2023) indicating that students use Google Translate to assist with translation, diction, confirming synonyms and antonyms, and pronunciation when reading English academic texts, but they do not primarily rely on it. Furthermore, this finding on the same page as Groves & Mundt (2020) found that students utilise Google Translate effectively when they implement it in their language learning along with the metacognitive reading strategies, such as evaluation of the translation outcomes. Instead of being passive users of translations, ESL students actively participate in their reading process by utilising Google Translate effectively to improve their reading comprehension and lexical knowledge (Pham et al., 2022).

Research Question 2: What is the UKM ESL undergraduate students' perceptions on the challenges of using Google Translate when reading English academic text?

Table 2
UKM ESL undergraduate students' perceptions on the challenges of using Google Translate when reading English academic text

No.	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean Scores	Standard Deviation
1.	The error connection when doing the translation.	39 (10.4%)	93 (24.8%)	91 (24.3%)	100 (26.7%)	52 (13.9%)	3.09	1.22
2.	The limited number of translations, only up to 3000 characters.	35 (9.3%)	80 (21.3%)	100 (26.7%)	117 (31.2%)	43 (11.5%)	3.14	1.16
3.	Sometimes Google Translate produces inaccurate or inappropriate meanings of words.	32 (8.5%)	64 (17.1%)	74 (19.7%)	128 (34.1%)	77 (20.5%)	3.41	1.23
4.	Google Translate cannot	35 (9.3%)	72 (19.2%)	81 (21.6%)	109 (29.1%)	78 (20.8%)	3.33	1.26

	translate some certain words.							
5.	Sometimes Google Translate provides wrong translations especially with phrases & a longer sentence.	33 (8.8%)	61 (16.3%)	84 (22.4%)	128 (34.1)	69 (18.4%)	3.37	1.21
6.	Sometimes Google Translate's outcomes are difficult to understand.	38 (10.1%)	72 (19.2%)	86 (22.9%)	118 (31.5%)	61 (16.3%)	3.25	1.23
7.	Google Translate makes me confused about the meanings of words.	31 (8.3%)	64 (17.1%)	107 (28.5%)	127 (33.9%)	46 (12.3%)	3.25	1.13
8.	Google Translate is unable to translate proverbs and idioms.	39 (10.4%)	57 (15.2%)	92 (24.5%)	119 (31.7%)	68 (18.1%)	3.32	1.23

Table 2 reveals the frequency counts, percentages, and mean scores for each item of the perceptions on the challenges of using Google Translate when reading English academic text. Based on table 2, item 3, which is "Sometimes Google Translate produces inaccurate or inappropriate meanings of words", has the highest mean score (M = 3.41, SD = 1.23). There are 34.1% (n=128) respondents who agreed with the statement, while 20.5% (n=77) respondents strongly disagreed, 19.7% (n=74) respondents were unsure, 17.1% (n=64) respondents disagreed, and only 8.5% (n=32) respondents strongly disagreed that sometimes Google Translate produces inaccurate or inappropriate meanings of words. Furthermore, item 5, which is "Sometimes Google Translate provides wrong translations, especially with phrases and longer sentences," has the second highest mean score (M = 3.37, SD = 1.21). According to item 5, 34.1% (n=128) agreed with the statement, whereas 22.4% (n=84) respondents were unsure, 18.4% (n=69) respondents strongly disagreed, 16.3% (n=61) respondents disagreed, and only 8.8% (n=33) respondents strongly disagreed with the statement. However, item 1, which is "the error connection when doing the translation", has the lowest mean score (M = 3.09, SD = 1.22). There are 26.7% (n=100) respondents who agreed with the statement, while 24.8% (n=93) respondents disagreed, 24.3% (n=91) respondents were unsure, 13.9% (n=52) respondents strongly agreed, and only 10.4% (n=39) respondents strongly disagreed that the error occurred when doing the translation.

Based on table 2, most of the respondents agreed that sometimes GT provides inaccurate and inappropriate translations as well as provides wrong translations, especially with phrases and longer sentences. Data from the interview session were gathered to thoroughly understand participants' perceptions on this second research question. The participants mentioned,

"First, the internet connection, because we need to use the internet connection when using Google Translate. Then, it cannot translate certain sentences, especially the specific terms in the business field. So, it is one of the challenges for me in reading the article or journal since I am not really fluent in the English language."

(Participant 1)

"One of the drawbacks is it does not provide accurate translation. For example, in the Hydrology subject, there is a term called 'aquifer'. When I translate the word 'aquifer' from English to Malay language, Google Translate only changes the alphabet 'q' to 'k', resulting in the word 'akuifer'. So, it does not help me to understand the real meaning of the word."

(Participant 2)

"There was one time when I wanted to translate 'water body' from English to Malay and it turned out to be just a direct translation, which is 'badan air'. So, it does not help me to understand the true meaning of the 'water body' in which I need to find the meaning of the 'water body' from other sources or just ignore the true meaning of it."

(Participant 3)

"Firstly, the inaccurate meaning of the words sometimes resulted in me not being able to match the translated word to the whole sentence, resulting in the weird meaning of the sentence, especially for the complex sentence. Then, it cannot translate the idioms."

(Participant 3)

"But when it comes to paragraph or sentence translation, it is not helpful for me to understand the meaning of it especially when I am in a rush to know the meaning of the sentence. For example, in science, the word 'metaphor'. When I translate the word from English to Malay, the result turns out to be 'metafor' which does not provide the word meaning but instead, just changes the alphabet 'ph' to 'f' only."

(Participant 4)

"In my opinion, sometimes the meaning is not comprehensive even though it is used worldwide. For example, every country has its own culture, such as dance and food. Google Translate still cannot provide the meaning and translation of these cultural words or elements."

(Participant 4)

"For example, the actual meaning of this phrase, 'subjective well-being', is 'kepuasan hidup'. But If I translate it from English to Malay, the meaning will be 'kesejahteraan subjektif', which is the direct translation of the phrase that does not provide the actual meaning. So, I need to refer to the lecturer to know about the actual meaning of this phrase."

(Participant 5)

"It is very challenging to know the accurate meaning of the word, especially the psychology term. For technical issues, I do not face technical issues but only for the internet connection."

(Participant 5)

"The inaccurate translation, especially when I translated the sentence. Sometimes the meaning of the sentence is not logical and weird, especially when it has miserable sentence structures and wording itself."

(Participant 6)

"I have experienced copying and pasting the sentences and translating them from English to Malay. However, the result turned out to have a different meaning from the exact sentence, which led to confusion because it translated directly the sentence despite following the rules of the sentence structure."

(Participant 6)

The finding that sometimes Google Translate produces inaccurate or inappropriate meanings of words is the biggest challenge of using Google Translate when reading English academic text among ESL undergraduate students. This can hinder students understanding the right meaning of the content when reading the academic texts, such as the lecture notes and scholarly articles. These findings are in line with the study conducted by Brahmana et al. (2020), which found that the challenge faced by the ESL learners of using Google Translate when reading English academic text is the inaccuracy and mismatch of the meaning translated that leads to the poor outcome. This finding is also on the same page as Merabet et al. (2023), which found that Google Translate has embedded accuracy issues and can impede critical thinking and actual language learning, particularly when it comes to idioms and technical words. Similarly, Google Translate is not a helpful tool for the ESL learners' studies, as it sometimes produces inaccurate or inappropriate meanings of words (Habeeb et al., 2020). This is because Google Translate can provide more accurate meanings when it is translated in a single word or sentence, as it avoids the ambiguity of the sentence that needs to be translated. Google Translate matches the input term with its most likely similarity in the desired language by using its bilingual text database when translating a single word. This process can be performed easily when there are no ambiguities or conflicting meanings (Pham et al., 2022). Academic texts require contextual correctness, which the tool frequently fails to achieve, resulting in inaccurate translations or too literal interpretations that fail to meet the intended meaning. This is in line with a study conducted by Herlina et al. (2019) stating that ESL students still need to alter Google Translate's outcomes to be matched with the academic texts to comprehend the academic text due to its poor quality of translation. Similarly, according to Purnama (2022), students need to double-check the outcome because it causes them to become confused about the true meaning, as sometimes the outcome is grammatically incorrect and leaves the meaning unclear. Therefore, this level of Google Translate's accuracy can hinder ESL undergraduate students' comprehension of the academic texts.

Furthermore, another challenge highlighted is the tool's failure to correctly understand the context of specific terms or phrases, which results in translations that miss significant ties to the original material. The findings showed that Google Translate is not helpful for the ESL undergraduate students, as it is unable to translate the technical and

specific terms that are used in their field of study. The translation result cannot give the thorough meaning of the terms but instead just gives the direct translation and changes the alphabet only. These findings are in line with the past study by Farahsani (2021), which found that Google Translate is unable to translate the right terms of the mechanical engineering field in the target language, which leads to the different and zero meanings. This can hinder their reading and learning process, where they need to find other sources to refer to in understanding the thorough meaning of the specific and technical terms. Students may misunderstand important academic material when technical words are poorly presented or mistranslated, which might cause them to have difficulty in their studies. This constraint makes it harder for the students to interact with the class materials in a meaningful way and makes them more dependent on other resources like specialised dictionaries or lecturer assistance (Wu et al., 2022).

Moreover, the findings also revealed that the error connection when doing the translation is the least challenge of using Google Translate when reading English academic text among ESL undergraduate students. This is because the internet connection has been provided by the universities for their students to use it in the university compound, which reduced the error connection when using Google Translate. As stated by Phuong et al. (2021), students can use the program without any problems during their academic activities because dependable internet infrastructure is widely available in university settings. In addition, the tool may operate offline with pre-downloaded language packs, which further reduces the possibility of connectivity issues. Students in areas with limited internet connectivity will especially benefit from this feature, which enables them to translate without depending on a stable connection (Groves & Mundt, 2020). However, this finding contradicted the research conducted by Tanasale (2023), which revealed that ESL students found it difficult to use when reading academic texts in English because of internet dependence since Google Translate can only be accessible with an internet connection.

Conclusion

In conclusion, this study aims to identify the UKM ESL undergraduate students' perceptions on the values and challenges of using Google Translate when reading English academic text. In this study, the students showed both positive and negative views of using Google Translate when reading English academic texts. The findings of the values showed that ESL undergraduate students show a positive attitude in using Google Translate when reading English academic text, which helps the students to provide very quick translations for texts, saves time, meets all their needs in terms of translating from English to their native languages and vice versa, and enhances their understanding when reading English academic text. The findings also revealed its challenges, where it sometimes produces inaccurate or inappropriate meanings of words, provides misunderstandings about the contextual meaning, and the errors connection when using the tool. This study shows that Google Translate is a useful tool that acts as a learning aid for the students in their studies. This study has significant implications for the ESL undergraduate students, as Google Translate assists them in comprehending complex and complicated academic texts with its quick and accessible translations. Then, another implication is that the translation developers can enhance the functionality and accessibility of Google Translate to provide accurate outcomes. However, the findings of this study cannot be generalised to the overall population of ESL undergraduate students in Malaysia, as this study was conducted with a small sample size

that was limited to the ESL undergraduate students in one of Malaysia's public universities. Therefore, future studies can be conducted with a large sample size and employ an experimental study that can provide deeper views on the use of GT when reading academic texts.

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