The Effectiveness of Machine Translation Using “Google Translate” in English Language Learning in Bangladesh

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ABSTRACT
The study aims to discover the perceptions of tertiary-level students regarding the effectiveness of machine translators in English language learning. As a result, the study examines students' development of English language skills after using Google Translate, which is a well-known and widely used machine translator. In this study, a mixed-method convergent design was employed. The participants of this study were 55 students enrolled in the B.A. (Hons.) in English program at Daffodil International University, Dhaka, Bangladesh. The result of the study shows that the participants use Google Translate to translate texts from English to Bengali or Bengali to English to better understand academic and non-academic English texts or books. The study has found that Google Translate is an effective tool for learning new word meanings, the meaning of complex sentences, new structures of sentences, the spelling of words, and the pronunciation of the English language. Furthermore, the research suggests that the implication of machine translators like Google Translate in English language learning can contribute to the improvement of students' language skills at the tertiary level.

Keywords: Bangladesh; English language learning; google translate; machine translation, translation

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INTRODUCTION

English is one of the compulsory subjects in the schools and colleges of Bangladesh. It starts in class one and continues up to class twelve (Rahman, 2015). Moreover, English is taught as a major or non-major course under honors programs in Bangladeshi universities (Rubel, 2019). The private and public universities in Bangladesh required English language proficiency from their students to comprehend class lectures, respond to questions in class, write answers in the examination, and communicate with professors (Sultana, 2014).

Unfortunately, Bangladesh lacks a well-defined and organized English language policy, and this issue has consistently persisted (Rahman & Pandian, 2018a, 2018b). Consequently, there is an inconsistency between policy and language use in Bangladesh. This crisis deepens when the students get admitted to universities and find that they do not have fundamental competence in communication, let alone competence in critical thinking through the English language. Therefore, at the university level, these students face several problems as the syllabus encompasses books and materials in English (Hossain, 2021).

Given the challenges faced by students in Bangladesh due to the lack of English language competence, especially at the university level where English is extensively used in the syllabus, it becomes imperative to explore effective pedagogical approaches that will help the students improve their English language skills. In this regard, amongst many activities, translation activities have proven to be a valuable tool for improving English language proficiency and knowledge, making them particularly relevant in the university classroom (Dagiliene, 2012). Dagiliene also adds that when translation activities are purposefully introduced into a language learning program, translation becomes a suitable language practice for many students.

Shiyab and Abdullateef (2001) argue that translation is an important technique in learning or teaching a foreign language. Fisiak et al. (1978) suggest that the native language of the learners should be treated as an assistant in the process of foreign language teaching and learning. It should also be consciously used instead of ignored and avoided at all costs. Bowen (1987) argues that in the 1970s, translation was perceived in a negative light due to the emphasis on exclusively exposing foreign language learners to the target language, aiming to enhance their linguistic and communicative skills. Additionally, certain researchers hold the belief that translation is a time-consuming task and lacks suitable resources for effective practice. Stibbard (1998) claims, when a native language is employed in the classroom, the amount of exposure and use of English is diminished. In this respect, Duff (1989) claims that “translation was traditionally accused of being uncommunicative, boring,
pointless, difficult, and irrelevant” in English language teaching and learning.

Kerr (2014) observed that the dismissal of translation was not justified by any kind of scientific evidence or pedagogical theories. He adds that translation is an essential tool for learning a new language, and it has many positive implications. It can be used to facilitate learning, encourage practice, identify potential issues, and evaluate proficiency. Additionally, instructors cannot prevent students from using translation because it is a fundamental stepping stone in language acquisition. In response to student feedback, Carreres (2006) conducted research and determined that learners viewed translation exercises as highly beneficial for language learning. He remarked that translation inherently encourages conversation, and students are usually very keen to participate, often enthusiastically arguing for their approach with great conviction. Koustas (1998) asserts that translation can be used in the language classroom, and if the translation is taught in a manner parallel to actual translation, it can draw upon the four fundamental language abilities and skills and helps in L2 acquisition.

In the past, language learners used a dictionary to translate a language into another language and get the meanings of unknown words. However, with the arrival of machine translation, it has become evident that translation is no longer solely limited to human translators. In a professional setting, it has evolved into a collaborative process between computing power and computerized language analysis, complementing the capabilities of human translators (Hatim & Munday, 2019). The present era of artificial intelligence makes it essential for students to be able to effectively apply machine translation in learning English as a foreign language through translation practice (Tsai, 2019). O’Neill (2012) suggested that online translation is valuable to learners as it provides a means to check meaning, and spelling and cut down on spelling mistakes.

In that case, a machine translator like, Google Translate is a popular tool created by Google that helps people translate text from one language to another. It has been available since 2007 and uses statistical models to do the translations (Halimah, 2018). Becoming the most popular machine translation, Google Translate (GT) in language learning has gained much attention in different research in recent years (Wirantaka & Fijanah, 2021). Google Translate is a free translation program that can translate text from one language to another. This technology is available on computers, smartphones, and tablets, and it has a variety of features (Gestanti et al., 2019).

Giannetti (2016) asserts that Google Translate (GT) lessens mistakes in syntax and meaning in student writing. Lee (2020) states that the use of machine translation could also be advantageous for students’ language learning from a cognitive, linguistic, and emotional point of view. Karnal and Pereira (2015) argued that with the implementation of GT,
learners applied more strategies, necessitating more cognitive effort, and consequently, their comprehension was more effective in the translation activities. Tsai (2019) found that the utilization of Google Translation leads to a remarkable improvement in writing quality, evidenced by the incorporation of a more sophisticated vocabulary, fewer spelling errors, and more sound grammatical structures. Without a doubt, students have begun to rely on Google Translate more and more both in and out of the classroom for a range of educational purposes, with the most common ones being the enhancement of their vocabulary, improved reading comprehension, and assistance with writing assignments (Alhaisoni & Alhaysony, 2017).

Maulidiyah (2018) observed the students of the English Education program at Politeknik Negeri Malang (an educational Institution) and detected that almost all of the students used Google Translate in their learning. Typically, they utilized GT to facilitate translation, writing, increasing vocabulary, and improving reading comprehension. The students chose to use GT because it is available at no cost and offers quick results.

Chandra and Yuyun (2018) stated that students employ GT in the writing process for three purposes: translating unfamiliar idioms and words, verifying spelling and diction, and discovering new vocabulary. Given the prevalence of GT usage among students, the research has revealed both its advantages and disadvantages for language learning.

In recent years, Van Lieshout and Cardoso (2022) examined the fact that Google Translate has pedagogical capabilities as a tool to assist in the L2 learning of phrases and associated pronunciation in a self-directed context, and the interactions between the learner and the technology. The findings indicated that GT can be utilized by learners with different approaches to self-directed learning. This research is the first to explore the potential of GT as a means of facilitating independent language learning. In this research article, the researcher attempts to analyze students' perceptions regarding using Google Translate. This research employed a qualitative research design.

Habeeb (2020)'s study was designed to investigate the students' attitudes towards the use of Google Translate among Iraqi undergraduate students. The study investigated the advantages and disadvantages of Google Translate. The study collected the data using a survey questionnaire that was administered to a group of Iraqi English language students. The students showed a high level of attitude towards the use of Google Translate. The findings also revealed some advantages of using Google Translate, such as quick translation, easy access, etc. There are some disadvantages too. Such as inaccurate output text, wrong proofreading, etc. The study adopts a quantitative research approach.
Wirantaka and Fijanah (2021) discovered the benefits of GT which include aiding students in obtaining knowledge about the English language, expanding students' vocabulary and its application, as a spell-checker, accent evaluator, and a syntactical remedy. In addition, the research shows effective GT usage that includes pre-editing, post-editing, translating partial translations, and using GT as a spell checker tool. This study employed a qualitative research design.

Another study by Muzdalifah et al. (2020) indicates that there is an increase in the ability of students to speak through the use of automatic dictionary applications such as Google Translate. This research employs a descriptive qualitative approach.

Interestingly, in the Bangladeshi context, no related study on machine translation is found from a general search on Google, Google Scholar or any other platforms. Hence, this research article tries to discover the effectiveness of learning English through machine translation using Google Translate in Bangladesh. It focuses on English department students in Bangladesh, as the majority of the previous studies were conducted in other parts of the world. Hence, the general hypothesis of this research article is that Google Translate can help Bangladeshi tertiary-level students develop their English language skills with an effective English learning tool.

Therefore, this study will investigate the following questions:

1. What is Bangladeshi tertiary-level students' perception regarding Google Translate as a tool for English language learning?
2. How effective is Google Translate in learning the English language, according to tertiary-level students' perception?

METHOD
Research Design
This study employed a convergent mixed-method design approach. This is a single-phase design in which both quantitative and qualitative data are collected, analysed and then compared to determine if the data contradict or validate each other (Creswell & Creswell, 2017). More precisely, a convergent parallel design requires the researcher to simultaneously conduct the quantitative and qualitative elements at the same point in the research process, independently analyze the two components, and combine the results (Creswell & Plano Clark, 2017).

Participants
In this study, the participants are students of the English department from different semesters enrolled in the B.A. (Hons.) in English at Daffodil International University, Dhaka, Bangladesh. The participants are 55 students who use Google Translate or used to use it before to learn the English language. In this research, the participants are chosen through a purposive or judgmental sampling technique. The sampling design relies on the researcher's judgment to choose...
participants who can provide valuable information for the study's goals. The researcher needs to concentrate on individuals who share a similar opinion and are willing to share their thoughts and experiences (Etikan, 2017).

**Instrument and Data Collection Procedure**

The researcher made a survey questionnaire containing both closed-ended (quantitative) and open-ended (qualitative) questions. The participants were required to share their opinions regarding the effectiveness of Google Translate as a tool to learn English and their development of English language skills after using Google Translate. The researcher asked 14 closed-ended questions (quantitative) and an open-ended question (qualitative) at the same time to gather data. The questionnaire was distributed via social media using a Google Form link. The questionnaire was designed with the aim to measure participants’ perceptions regarding the effectiveness of Google Translate. The quantitative survey questionnaire was made by following the Likert scale where participants responded through five options for each question (strongly agree, agree, neutral, disagree, strongly disagree). On the other hand, qualitative data were collected through an open-ended question that tries to attain the overall perception of Google Translate from the participants.

**METHOD**

The quantitative data was collected through questionnaires designed on a Likert scale. All quantitative data were analyzed according to descriptive statistics (the means) using Microsoft Excel. In identifying the agreement of participants through mean average, a set of ranges is used. Range 1.00-1.80 means “Strongly Disagree”, 1.81-2.60 means “Disagree”, 2.61-3.40 means “Neither”, 3.41-4.20 means “Agree” and 4.21-5.00 means “Strongly Agree”.

On the other hand, the qualitative data were classified into different themes that are related to the research questions. The crucial themes are then presented in a table. The themes were chosen based on the number of times they were mentioned by the participants in their narrative responses. The themes are analyzed through a descriptive qualitative research method. Then the researcher analyzed and compared both qualitative and quantitative data to determine if the data contradicted or validated each other and supported the research hypothesis. To analyze the open-ended data, the participants are coded as P1, P2 ...P8, P9...

**RESULTS AND DISCUSSION**

The researcher distributed a questionnaire to find out the answer to the research problems by identifying the participants’ perceptions about using Google Translate and their success in developing English skills through using it. It consisted of 14 close-ended questions and 1 open-ended question. The results of the survey are depicted in Tables 1, 2 and 3. The last two columns of the table 1 and 2 show the average means of the items of the questionnaire. Table 3 shows the important themes of the open-ended answers.
Students’ Perceptions of Google Translate as a Tool

Table 1: Students’ perceptions about using Google Translate as a tool in English language learning.

<table>
<thead>
<tr>
<th>Google Translate’s Effectiveness as a Tool</th>
<th>Mean</th>
<th>Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Translate is easy to use and free and fast.</td>
<td>3.67</td>
<td>Agree</td>
</tr>
<tr>
<td>Google Translate provides satisfactory service.</td>
<td>3.53</td>
<td>Agree</td>
</tr>
<tr>
<td>Google Translate helps find the right pronunciation of English words and sentences.</td>
<td>3.55</td>
<td>Agree</td>
</tr>
<tr>
<td>Google Translate helps me with the right spelling of English sentences.</td>
<td>3.47</td>
<td>Agree</td>
</tr>
<tr>
<td>Google Translate helps find the right meaning of English words and sentences.</td>
<td>3.51</td>
<td>Agree</td>
</tr>
<tr>
<td>Google Translate helps with the new structure of English sentences.</td>
<td>3.42</td>
<td>Agree</td>
</tr>
<tr>
<td>Google Translate helps to understand English sentences from books and other texts by translating them into their native language.</td>
<td>3.49</td>
<td>Agree</td>
</tr>
<tr>
<td>Mean of the items</td>
<td>3.52</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Table 1 contains seven items regarding GT’s effectiveness as a tool for learning the English language. According to the perception of the participants, they agree that GT is easy to use (3.67 = Agree) and provides satisfactory service (3.53 = Agree). As well as, the participants agree that GT is effective in suggesting the right pronunciation (3.55 = Agree), the right meaning of words and sentences (3.51 = Agree) and teach new grammatical structure (3.42 = Agree). Moreover, the participants agree that GT can translate English sentences from books and other texts into the native language (3.49 = Agree). The average of the components shows that the perceptions of students regarding GT effectiveness as a tool is positive (3.52 = Agree). They agree that GT is effective as a tool for English language learning.

Students’ Perceptions Regarding Google Translate’s Effectiveness in Learning English Language

Table 2 Students’ perceptions about using Google Translate to develop their English skills.

<table>
<thead>
<tr>
<th>Effectiveness of Google Translate in developing English language skills.</th>
<th>Mean</th>
<th>Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have learned correct pronunciation by using Google Translate.</td>
<td>3.29</td>
<td>Neutral</td>
</tr>
<tr>
<td>I have learned correct spelling by using Google Translate.</td>
<td>3.35</td>
<td>Neutral</td>
</tr>
<tr>
<td>I have learnt the correct meaning of English words and sentences by using Google Translate.</td>
<td>3.58</td>
<td>Agree</td>
</tr>
<tr>
<td>I have learned new English language structures by using Google Translate.</td>
<td>3.58</td>
<td>Agree</td>
</tr>
<tr>
<td>Google Translate helped me recognise my grammatical errors.</td>
<td>3.51</td>
<td>Agree</td>
</tr>
<tr>
<td>My present English skills are better than before, after using Google Translate.</td>
<td>3.47</td>
<td>Agree</td>
</tr>
<tr>
<td>I feel helped by Google Translate.</td>
<td>3.51</td>
<td>Agree</td>
</tr>
<tr>
<td>Mean of the items</td>
<td>3.47</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Table 2 contains seven items about the perceptions of participants regarding their development in learning the English language through Google Translate. According to the perceptions of the participants, they agree that after using GT, they have learned the correct meaning of English words and sentences (3.58 = agree) and new English language structures (3.58 = agree). But in the case of learning the correct pronunciation and spelling of the words, the participants’ perceptions are neutral (3.29 = neutral, 3.35 = neutral). On the other hand, they agree that using GT has successfully...
helped them recognize their grammatical errors. (3.51=Agree). As well as, participants agree that they feel (3.51=Agree) helped by GT in English language learning and they also claim that (3.47=Agree) after using GT, their present English skills are better than before. In the end, the average of the components (8–14) shows that the perceptions of students regarding the effectiveness of Google Translate in learning the English language are positive (3.47=agree). That means they agree that Google Translate is effective and impactful for learning the English language.

**Students' Statements Regarding the Effectiveness of Google Translate in Learning English Language**

The result of closed-ended questions is also supported by the participants’ open-ended narrative responses. 55 participants narratively responded regarding their perceptions of the effectiveness of Google Translate in learning the English language. The qualitative data are analyzed by examining the potential themes that are related to the research questions. The important themes are presented in a table (see, Table 3 below). In keeping with the research question, the findings are discussed later.

Table 3: Important themes from the open-ended responses on the use of Google Translate.

<table>
<thead>
<tr>
<th>Themes</th>
<th>How many times it was mentioned (Across all open-ended answers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GT is a helpful tool</td>
<td>10</td>
</tr>
<tr>
<td>Increases confidence in English learning</td>
<td>4</td>
</tr>
<tr>
<td>Helps in recognizing grammatical errors</td>
<td>11</td>
</tr>
<tr>
<td>Teaches new structures of sentences</td>
<td>17</td>
</tr>
<tr>
<td>Teaches the meaning of new English words</td>
<td>5</td>
</tr>
<tr>
<td>Helps to understand the meaning</td>
<td>9</td>
</tr>
<tr>
<td>Teaches grammar.</td>
<td>7</td>
</tr>
<tr>
<td>Translation teaches English</td>
<td>7</td>
</tr>
<tr>
<td>Develop English skills</td>
<td>8</td>
</tr>
</tbody>
</table>

Based on the open-ended responses, the participants’ general perceptions regarding Google Translate are that it is “helpful”, “free” and fast. P2, P9, and P13 further claim that they feel confident when they use GT for learning and using the English language. P2 says, “I feel confident when I write with Google Translate”. Multiple students, P5, P10, P19, and P25... think that GT helps them recognize grammatical errors. P5 says, “It (GT) shows where I make grammatical errors when I write new English sentences”. P10 adds, “Google Translate identifies my errors, which I correct. As a result, I learn from my mistakes."

P2-P8, P12, and P18 have claimed that their skills in English grammatical structure have improved after using GT. As well as, they have learned new, complex sentence structures. P12 states, “It (GT) helps me when I get stuck trying to understand and structure a complex sentence. After using Google Translate, I learned a lot of new English (sentences)”. P3, P4, and P6-P8 have claimed that after using GT, they learned new English vocabulary. P4 states, “Whenever I am confused with new English sentences and words, I take help from Google Translate”. Students P3, P8, P11, and P25 have claimed that GT has helped them to understand the meaning of complex texts. P11 claims, “When I do not understand complex sentences or do not understand any
lines from books, I take help from Google Translate”. Moreover, P9, P18, and P19…have stated that GT has taught them English grammar, which was eventually beneficial to the learners. P9 says “Spelling and grammatical mistakes were frequent in my work. I can confidently say that my grammar mistakes have decreased because I have learnt from my mistake …”. P3, P5, P6, P8, and P13 have agreed that translation helped them to learn the English language. P3 states, “Whenever I try to write or speak something new in English, I use Google Translate. It translates my Bengali (native language) sentences into English. I learn new structures, new words, and pronunciations from Google Translate”.

As a result, multiple students, P14, P20, P21, P24, P27, and P28…claimed that GT has improved their overall English language skills. P14 says “It (GT) can help the learner improve his or her skills”. P21 says, “It helped me get a good grade as well. It also improves my English writing skills”. Moreover, P24 claims that “Google Translate is good because it helps me improve my English skills. So other students can get help from it too”.

Hence, participants have stated that their skills of uttering correct pronunciation, writing skills, storage of new vocabulary and making new sentence structures in English have improved. Most of them have agreed that Google Translate is an effective tool and claimed that it has the capability to help students to increase their English language skills. Hence, the perceptions of Bangladeshi students regarding GT are positive and optimistic.

The combination of Findings from Both Quantitative and Qualitative Data.

The quantitative data shows the perceptions of the participants that Google Translate is an effective learning tool and that, by using it, they have developed their English language skills. On the other hand, the qualitative data validate the perceptions of the participants that Google Translate is effective as a learning tool when they use it in language learning. Moreover, the data claim that Google Translate helps students develop their English language skills, including correct pronunciation, writing skills, the storage of new vocabulary and new sentence structures.

Since qualitative data support the quantitative data, it validates the research hypothesis and answers the research questions. The data validates that Google Translate is an effective language learning tool that helps students develop their English language skills.

The result of this study also confirms the findings of Maulidiyah (2018), Chandra and Yuyun (2018), Van Lieshout and Cardoso (2022), Wirantaka and Fijanah (2021), Habeeb (2020), Muzdalifah et al. (2020) etc. that Google Translate is effective as a tool in English language learning and has successfully helped participants to improve their English language skills.

The study is conducted for the first time in the Bangladesh context. Hence, this research can lead other researchers to work on machine translation and English language learning, as this field has great potential and is influential for the students of all level of Bangladesh.
However, this paper only identifies the perceptions of the students regarding Google Translate and its effectiveness. In that case, other researchers can work on this topic more elaborately. Moreover, they can do experimental research to find out actual scientific data to identify machine translation's influence and effectiveness on English language teaching and learning in Bangladesh.

CONCLUSION

The paper investigates the effectiveness of Google Translate as a language learning tool, which is a popular machine translator. As well as it investigates if Google Translate improves the English language skills of the participants. After analyzing and comparing both qualitative and quantitative data, which were collected from the participants, all the research questions of the paper are answered. The results claim that tertiary-level students believe that Google Translate is a machine translation that works effectively as a tool for learning the English language. Moreover, Google Translate develops tertiary-level students’ English language skills.

The result demonstrates that the tertiary-level students can utilize Google Translate as a tool to fulfil their knowledge gap and improve their English language skills effectively.

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AUTHOR CONTRIBUTION STATEMENT

AS worked as drafting, data collection and data analysis while writing the manuscript.

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