ملخص:

### The Impact of Google Translate on EFL Learners' Writing Performance

تأثير قوقل للترجمة على أداء الكتابة لدى متعلمي اللغة الإنجليزية كلغة أجنبية

# Sara LAICHE<sup>1</sup>, Abdelhak NEMOUCHI<sup>2</sup>

<sup>1</sup> Mostefa Benboulaid University, Batna 2 (Algeria), s.laiche@univ-batna2.dz
<sup>2</sup> Larbi Ben'Mhidi University, OEB (Algeria), abdelhak\_nemouchi@yahoo.fr

#### Abstract

As most learners and teachers described, writing is a challenging task due to its different aspects. Accordingly, learners, frequently, tend to transfer from L1 to L2. Technological development brought various tools to help learners overcome their difficulties that Google Translate (GT) is the ideal option among students. Therefore, this study examines the impact GT has on EFL students' writing performance. The research opted for an experimental design wherein 32 second-year students at Badji Mokhtar - Annaba University were under investigation. Results revealed that students' writings slightly enhanced. They produced more unique words, fewer spelling mistakes, better arrangement of ideas, and longer sentences.

Keywords: EFL; Google Translate; Machine Translation; Translation; Writing.

يصف أغلب المتعلمين والمعلمين مهارة الكتابة بالمهمة الصعبة وهذا راجع إلى جوانبها المتعددة و المتداخلة، لهذا يميل بعض الطلبة إلى الترجمة من اللغة الأم إلى اللغة الأحنبية في كثير من الأحيان. لقد أحدث التطور التكنولوجي نقلة نوعية في أدوات الايضاح المستعملة لمساعدة المتعلمين في التغلب على الصعوبات التي يواجهونحا، حيث يوفر موقع قوقل للترجمة الخيار المثالي للطلاب أثناء الكتابة خاصة. تحدف هذه الدراسة إلى تحديد مدى تأثير قوقل للترجمة على أداء طلاب اللغة الإنجليزية كلغة أحنبية في المنتوج الكتابي ويتبنى البحث المنهج التحريبي وتطبيقه على عينة مشكلة من 22 طالبًا من السنة الثانية بجامعة باحي مختار -عنابة. أظهرت النتائج أن كتابات الطلاب تحسنت نوعيا، حيث وظفوا معجما مميّزا، وأخطاء إملائية أقل في جمل أطول وبترتيب أفضل للأفكار.

كلمات مفتاحية: اللغة الإنجليزية كلغة أجنبية، قوقل للترجمة، ترجمة آلية، ترجمة، الكتابة.

#### 1. Introduction

Translation came for the necessity of human communication wherein language hinders comprehension. During the 19th century, the Grammar-Translation method influenced foreign language (FL) researchers' interests, concerning developing learners' reading and writing skills (Richards, 2004). Since it helped learners memorize large amounts of vocabulary items and grammatical structures at the expense of all other language skills and properties, educators shifted to the Direct Method, then other methods (Richards, 2004).

The emergence of advanced technologies influenced almost everything, providing man with new possibilities to perform any task, especially in the educational field. Studies related to Translation also witnessed a profound change for the various facilities technology furnished. One of the prominent features this digital era established is the Machine Translation (MT) software.

As with all technological aspects, several educators investigated the effects of using MT software in EFL classes. Azer (2015) stated that MT could be helpful in the EFL classes, which may support learners at the productional level. Accordingly, MT promotes autonomous and self-directed learning skills (Godwin, 2015; for Bernardino (2016), MT facilitates writing tasks by developing learners' lexical fluency and grammatical accuracy (qtd in Chen et al., 2015). Thus, Lee (2020) claims that computer-assisted translation contributes to learners' faster and more fluent written productions with minor errors. There are various websites related to translation, that the Google Translation (GT) is the most known and used one.

FL teachers often face the problem of transferring from the learners' mother tongue to the target language, where learners lend to translate when they speak or write due to their lack of knowledge in the foreign language to utter an idea. Accordingly, writing teachers face dramatic hurdles to teach the most challenging skill, which requires endless efforts, guidance, and practice (Nunan, 1989).

Technology is almost everywhere: smartphones, tablets, or portable computers that today's students are digital natives and use internet facilities regularly, especially for educational purposes. Due to the different aspects of writing, FL finds themselves translating from and to their first language, mainly when writing. Google Translate seems inspiring for EFL learners to fulfill their writing tasks, which only requires a device with a working network. Accordingly, this research examines the impact of Google Translate on second-year EFL learners enrolling at Badji Mokhtar - University. The main objective of this study raises the following questions:

- a. Do second-year students of English at Badji Mokhtar Annaba University use Google Translate in their writing tasks?
- b. To what extent does the introduction of Google Translate to the EFL classroom affect learners' writing achievements?
- c. How do second-year students at Badji Mokhtar Annaba University perceive using Google Translate to accomplish their writing tasks after its use?

The research questions, as mentioned above, lead to the following hypotheses,

which will be thoroughly discussed afterward:

- a. EFL learners would have negative attitudes towards the use of Google Translate as a tool to help them fulfill their writing assignments.
- b. If EFL learners used Google Translate as a means to write in English, it would likely improve their writing achievements.
- c. If EFL learners' writing improved through Google Translate, they would have positive attitudes about it.

#### 2. Review of Literature

#### 2.1 The Machine Translation

The modern era provides different means to EFL learners to enhance their language development as online dictionaries, online writing blogs, translation websites, online grammar and spelling checkers, and word processors, which can be efficient tools to improve their writing abilities. Automated translation machines refer to online sites where internet users can translate any written, or spoken, passages from one language to another, in which the web-based translator understands the meaning of the text in the source language, then transforms it into the target language. (Chon & Shin, 2020, 26) Although the translation occurs in a network-based environment, researchers highlight human intentness as an inevitable part of the MT process. The high-quality translation is an arduous task for a device to fulfill that translation performed by MT occurs within Ohuman control. (Hutchins & Somers, 1992)

Researchers in MT studies focus on the translation features that MT provides in the field of translation.(Hutchins & Somers, 1992) However, recent studies' focal point shifts to the effects of MT tools on FL learners' language development (Raheem, 2020). The use of MT helps EFL learners develop their self-regulation, critical thinking, and motivation performances.(Yang & Wang, 2020) Similarly, Niño (2020) maintains that MT does not hinder independent language learners' achievements but rather promotes their comprehension as quick language checkers. Additionally, Wong et al. (2010) state that students, who use MT in their reading classes, gain more motivation and confidence in their skills. Concerning writing skills improvement, Lee (2020) claims that MT tools help EFL learners develop their writing abilities. One of the most popular features MT provides is the Google Translate website, a product developed by Google Company in 2006. It is a free multilingual MT service that translates text, audio, images, sites, or real-time video from the source language to another language. (Li, Graesser, & Cai, 2014)

### **2.2 Google Translation**

Google Translation, or Google Translate (GT), is one of the most often employed online resources for translation, which is compatible with computers, smartphones, and tablets systems with multiple features (Gestantil, Nimasari, &Mufanti, 2019). Hampshire and Salvia (2010) argue that GT is the most frequent and favorite MT system among its users. As becoming a popular translation tool for FL learners, many

students use GT to help them learn foreign languages due to its distinctive characteristics of being free, easy to access with a quick translation process. (Kumar, 2012)

GT has a rule-based translation machine that determines the translation of words using a statistical model in which it, immediately, translates the text to the English language and, then, to the target language.(Kumar, 2012) During the translation process, GT searches different documentations to attain an adequate translation pattern according to previous human-translated texts wherein the appropriateness of the final product highly depends on the number of stored texts translated by man (Ghasemi & Hashemian, 2016).

To improve fluency and accuracy, GT shifts from sentence-based translation to Neural Machine translation, using Artificial Intelligence, in which it mimics the human cognitive functions (Russel & Norvig, 2010). Instead of fragmenting the original into chunks, GNMT takes the whole text and context into account to find the most relevant translation and, then, rearranges and adjusts the text to make it resemble human-made with proper grammar and vocabulary (Wu et al., 2016).

### 2.1.1 Google Translate for Learning

There is very little literature on the use of GT in language teaching and learning. However, due to the significant improvement in grammatical and lexical correctness within GT and its online availability, it has become more widely used in various situations, owing to its ease, multilingualism, immediacy, efficiency, and low cost. (Alhaisoni & Alhaysony, 2017). Unquestionably, students are increasingly using Google Translate inside and outside the classroom for different academic objectives, with the most common being vocabulary learning, reading comprehension, and writing tasks (Alhaisoni & Alhaysony, 2017). Accordingly, researchers start questioning GT's utility in language learning and teaching.

Because of its simplicity, Google Translate is the second most popular online tool among language learners, as it helps them promote their reading and writing abilities in other languages while also lowering their learning anxieties (Herlina et al., 2019). Nevertheless, GT does not provide any clear explanation because it has neither a grammatical function nor a context translation (Herlina et al., 2019). Accordingly, learners' use of GT minimized its role to dictionary-like for acquiring vocabulary. (Clifford et al., 2013) GT is significant in providing students with a broad understanding of texts in reading comprehension, but it is ineffective in delivering grammatical answers (Herlina et al., 2019).

Using GT to perform writing tasks is satisfactory for learners with low language proficiency and benefit more from GT than others with high fluency (Herlina et al., 2019). However, Fredholm (2015) states that learners with a high level are likely to spot mistakes produced by GT. Chon & Shin (2020) claim that GT could help develop EFL learners' writing process in foreign languages, especially writing fluency, cohesion, and more complex sentences with accurate vocabulary. Consequentely, Tsai

(2019) argues that using GT shows significant writing quality, rather than students' self-written reports in which they used more vocabulary that is advanced, fewer spelling mistakes, and better grammatical structures.

## 2.1.2. Pitfalls to Google Translate Use

Educational response to new technologies with potential classroom uses full of excitement, uncertainty, and hostility requires careful consideration of the teachers. Many teachers express their doubtfulness and restrict the use of GT in classroom settings, due to its inaccurate Translation (Clifford et al., 2015). Others prohibit online translation because it obstructs language learning by providing a shortcut that fosters cheating and plagiarism (Pritchard, 2008). Accordingly, it is essential to train teachers and learners to use online translation appropriately (Fredholm, 2015).

In addition to the ethical concerns, there are other language-related pitfalls to GT. Because it generally delivers word-for-word translation, Google Translate cannot provide an error-free translation for lengthier sentences or paragraphs.(Medvedev, 2016) Subject-verb agreement is still challenging in GT use (Maulidiyah & Malang, 2018). Furthermore, it is ineffective in translating idiomatic expressions and metaphors, which, sometimes, causes misunderstanding for the reader.(Raza & Nor, 2018)

## 2.2 EFL Writing

Learning a language necessitates exposure to the four language skills: listening, speaking, reading, writing, and other subskills, like grammar and vocabulary. Writing is a physical and mental exercise that needs the writer to gather thoughts and organize them into intelligible productions (Nunan, 1989). Writing is an arduous task for the different interrelated items, wherein producing an accurate account includes correct grammar, appropriate word choice, proper mechanics, clarity, and organization (Harmer, 2007).

Since writing is a challenging skill that requires guidance, practice, and efforts to acquire, learners would encounter difficulties performing their writing tasks. Accordingly, El Aggoune & Ghaouar (2021) state that EFL teachers are not satisfied with their learners' level in writing, as they struggle to produce well-structured coherent writings having difficulties in grammar, mechanics, and content organization. As a result, producing a correct whole is an unpleasant activity for EFL learners, who lack the motivation to write (Shukri, 2014). Another factor that hinders the learners' writing development is their tendency to transfer from their mother language to the target language, ignoring the linguistic system differences, which shape each language (Karim & Nassaji, 2013).

# 2.3 Translation as a Writing Technique

During the Grammar-Translation Method's dominance, translation took the limelight but was quickly abandoned in favor of communication skills. For decades,

educators and learners utilized translation in English language classrooms, and teachers never completely prohibited it (Cook, 2010). Translation is one of the four major cognitive processes in writing (Hayes & Flower, 1980). Ghaouar et al. (2019) state that translation is an important cognitive strategy to learn vocabulary. Most university students struggle to transfer meaning from one language to another because they are unaware of the changes in grammar and style between languages (Karim & Nassanji, 2013).

There is no difference between writing in L2 and translating into L2; both entail producing a written composition in a foreign language (Cook, 2010). Students mentally convert their thoughts and notions into a language they do not, entirely, grasp as their native language in written composition. Understanding the foreign language characteristics, such as grammar, style, norms, and culture, is required for Translation to L2. One of the significant issues is lexical choice appropriateness because in some languages, such as English, a single word, whether a noun or a verb, can have several meanings depending on the context (Karim & Nassanji, 2013).

### **3. Methods and Materials**

Two questionnaires and an experimental study will be utilized as research instruments to address the research query. The first survey, a pre-questionnaire, was given to participants at the very beginning of the research to get information on their usage of GT concerning writing in English. The experimental study, which included pre and post-tests, was meant to examine the usefulness of using GT as a technique to improve learners' writing skills. The participants received a post-questionnaire by the end of the experiment to determine whether their attitudes towards using GT were ameliorated or not. All participants showed consent to take part in the experiment and understood that their identities would remain secret. The teacher carefully explained the steps through which the learners would pass.

### 3.1 Learners' Questionnaire

The questionnaire collects quantitative data about the participants, gathering general views about a group (Fraenkel, Wallen, & Hyun, 2015). The pre-questionnaire consisted of two sections. The first section deemed to obtaining general information about the participants concerning their age, level in English writing, and obstacles they have when writing. Therefore, the second section aimed to shed light on their actual use of GT. It contained four statements that require a choice from 1 to 5 according to the Likert Scale (1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree).

The teacher delivered a post-questionnaire to ascertain EFL learners' attitudes after dealing with GT in the writing session by the end of the experiment. The survey also included eight statements with a choice according to the Likert Scale (1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree). Both questionnaires were architected online, using Google Forms. All quantitative results were analyzed

according to the descriptive statistics (the means and standard deviations SD) through the Statistical Package for the Social Sciences program (SPSS Statistics).

## **3.2 The Experimental Design**

The experiment is a data collection tool that aims to make an event occur under definite conditions revealing a cause-effect relationship between two variables.(Sing, 2006) In this regard, this experiment opts for measuring the effects GT had on EFL students writing performance. The experiment was used with one group as a single-individual experiment because it is valuable and applicable within classroom settings better than a true experiment. It started with pre-test and ended with a post-test: the tests were identical. In between, the learners received treatment using Google Translate. The experiment lasted for two sessions during the first semester of the university year 2020-2021.

In the first session, the learners were required to produce a short essay about the importance of technology in human life in the classroom (Pre-test). The learners' writings were analyzed regarding spelling and grammar mistakes, word choice, sentence patterns, and content organization. Followingly, the learners were asked to write the paragraph in their mother tongue and translate it using GT at home. In the following session, the teacher asked the students to write another essay about the importance of technology in our life (Post-test). Learners share their productions through emails. The time allocated for both productions was 45 minutes. Results of both tests were compared to identify whether there was any significant change in the learners' writings, or not.

# 3.3 The Sample

The participants under investigation were 32 second-year students enrolling at Badji Mokhtar - Annaba University. The sample was chosen, randomly, as being taught by the researcher. Random sampling is crucial in research because it is unbiased and tends to represent the population (Johnson & Christensen, 2012).

# 4. Results and Discussions

### **4.1 The Pre-questionnaire**

Results revealed that learners' age varied. Accordingly, the majority (40.62%) of the participants were between 19-years-old and 21-years old (31.25%) were aged between 22 and 24 years old, others' ages (15.62%) were between 25 and 27, and the rest (12.5%) were older than 27 years old (Mean= 2.121, SD= 0.529). Concerning their level in English writing, some students (9.37%) claimed they were excellent writers, others (31.25%) expressed that they were good in English writing, the majority of participants (37.5%) stated that their writing skills were fair, other learners (18.75%) stated that they had poor writings, and the minority (3.12%) indicated that their skills in writing were feeble (Mean= 2.063, SD= 0.624). The majority of participants (59.37%) stated that they did not frequently use Google Translate to

overcome their difficulties, whereas the others (40.62%) claimed that they use GT to accomplish writing assignments (Mean= 2.982, SD= 0.763). The table below shows a summary of the participants' general information.

Although the participants have been practicing English writing for more than eight years, the findings indicated that they have different difficulties when it comes to writing. Many students (65.62%) face difficulties finding the appropriate vocabulary items when they write; they also (59.37%) make spelling mistakes in written assignments. The majority (71.87%) has issues in grammar, including tenses, subject-verb agreement, use of adjectives and adverbs, articles, prepositions, making transitions, and problems related to the sentence patterns (62.5%). They also lack knowledge in mechanics wherein (53.12%) have difficulties in punctuation signs and capitalization. As far as the organization of the writing, (65.62%) of the correspondents claimed they could not arrange their productions logically. Additionally, (40.62%) of students expressed that they could not generate ideas when they were asked to write (Mean= 1.242, SD=0.746). The following table summarizes the collected results related to challenges EFL learners have in writing.

	Percentage	Mean	SD
1. Vocabulary	65.62%		
2. Grammar	71.87%		
3. Sentence structures	62.5%		
4. Spelling mistakes	59.37%	1.242	0.746
5. Punctuation and capitalization	53.12%		
6. Organization of content	65.62%	-	
7. Finding ideas	40.62%		

Table 1: Challenges in the Writing Tasks

The findings of the second section of the questionnaire indicated that the participants were not frequent users of GT (Mean= 1.362). It appears that they did not use Google Translate in a regular manner to translate sentences when they write (Mean= 1.028). Besides, the majority of participants did not perceive GT as an educational tool helping them to save time (1.507). Finally, the correspondents were not entirely confident in their writings (Mean= 1.813). Table 2 depicts the perspectives of second-year EFL students about the use of *Google Translate*.

 Table 2: Participants' Perceptions about the Use of GT

		Percentage	Mean	SD
1. I Use GT to check the meaning of words.	1	31.25%		
	2	28.12%		
	3	25%	1.362	0.501
	4	9.37%		
	5	6.25%		

2. I Use GT to translate sentences.	1	28.12%			
	2	28.12%			
	3	25%	1.028	0.492	
sentences.	4	15.62%			
	5	3.12%			
		21.87%			
	2	25%		0.521	
3. Use of GT saves time.	3	18.75%	1.507		
	4	18.75%			
	5	15.62%			
	1	34.37%			
	2	25%			
4. I use GT because I am not confident in my writing.	3	18.75%	1.813	0.578	
	4	12.5%			
	5	9.37%			

From the previous results, it is evident that learners have a very low tendency to use *Google Translate* when performing a written task. The reason behind this negative attitude is the participants' beliefs in the shortcomings of the GT, ignoring all advantages it has, like improving vocabulary knowledge, avoiding grammatical and spelling mistakes, allowing them to generate more ideas about the topic, and reordering the ideas in a reasonable manner (Tsai, 2019). Additionally, learners face dramatic deficiencies, in which they find it difficult to use correct grammatical utterances, proper mechanics, convenient vocabulary choice, and coherent organization of ideas (Coe et al., 1992).

#### **4.2.** The Experiment

The participants produced short essays of no longer than 650 words about the benefits of technology for human life. They fulfilled their task, entirely, and sent their works in document format through e-mail. The learners performed the pre-test in the classroom setting. At home, they prepared the Arabic version and translated it using GT. Next, they were assigned the same topic.

The length of the learners' essays varied (Mean= 10.978). Confirming what was revealed from the pre-questionnaire results, learners produced several spelling mistakes (Mean= 2.281), grammatical mistakes (Mean= 2.121), different sentence patterns (Mean= 1.937), and content organization (Mean= 2.821).

However, the post-test showed a little sign of the treatment through, in which they wrote somewhat lengthier essays (Diff= 0.643) with minor mistakes in spelling (Diff= 0.455) and grammar (Diff= 0.199). The results also revealed that students used more different sentence patterns in their post-tests (Diff= 0.346). In addition, their content appeared to be more logically organized than in the pre-test (Diff= 0.171).

Table 3 describes the results obtained from both tests along with the differences in means, which show the significant development in the participants' essay writing.

	Number of words		Spel mist	U	Grammatical Sentence mistakes patterns		Con organi			
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Pre-test	10.978	5.032	2.281	0.789	2.121	0.862	1.937	0.502	2.821	0.689
Post-test	11.621	6.003	1.826	0.423	1.922	0.581	2.301	0.722	2.992	0.829
Diff	0.643	/	0.455	/	0.199	/	0.364	/	0.171	/

 Table 3: Differences between Pre-test and Post-test Results

(Diff: difference)

In addition, based on the analysis, words used in students' post-test were more unique than the ones used in the pre-test. This reveals that *Google Translate* affects the learners' choice of words. According to Li et al. (2014), EFL learners often use GT as a diction. Moreover, results showed that learners' mistakes in grammar and spelling were ameliorated after the use of GT, in which their post-tests had more accurate grammar and lexis. The latter corresponds to the study of Chon & Shin (2020), which insisted on the possibility of using GT to promote FL students' writing quality.

Aside from vocabulary, various aspects need consideration when generating highquality writing, such as an emphasis on content, structure, sentence patterns, and genre. Students must think, plan, write, and edit depending on the subject of the chosen topic during the writing process. However, it is difficult for EFL students to finish a suggested English draft with correct vocabulary, syntax, and structure in a short fixed amount of time.

Although machine-translated resources are of lower quality than human translations, the use of GT is currently reaching a far larger audience than before. (Chon & Shin, 2020) For appropriate use, the teachers should support their learners and instruct them on how to use translation-machines that deprive students from real-world. Electronic resources appear to stand directly in opposition to their language development. Their first impression about GT is due to their unawareness concerning GT's benefits.

#### 4.3 The Post-questionnaire

The correspondents were asked to fill in another online questionnaire to attain a closer view of how they perceive Google Translate after using it. Accordingly, second-year students of English felt more flexible to use GT in their writing assignments (Mean= 2.836). Only after using *Google Translate*, the participants showed moderate interest in the website. They claimed that GT helped them improve their writing in English (Mean= 2.109) in terms of writing a correct grammar (Mean= 2.391), using several sentence structures (Mean= 1.906), and avoiding spelling mistakes (Mean= 1.438). By the end, the majority of participants expressed their desire to continue using

GT as an educational tool for future implementation (Mean= 1.846). Results are shown in table 4.

		Percentage	Mean	SD
	1	9.37%		
	2	12.5%		
1. I am satisfied to use GT.	3	15.62%	2.386	0.703
	4	28.12%		
	5	34.37%		
	1	12.5%		
	2	18.75%		
2. GT helps improving my writing.	3	6.25%	2.109	0.684
	4	31.25%		
	5	31.25%		
	1	15.62%		
2 CT below with a second	2	21.87%		
<b>3.</b> GT helps writing correct	3	3.12%	2.391	0.711
grammar.	4	25%		
	5	34.37%		
	1	9.37%	1.906	
	2	12.5%		
4. GT helps writing different sentence patterns.	3	15.62%		0.529
sentence patterns.	4	28.12%		
	5	28.12%		
	1	9.37%		
5 CT holes evolding shelling	2	15.62%		
5. GT helps avoiding spelling mistakes.	3	6.25%	1.438	0.495
mistares.	4	37.5%		
	5	31.25%		
	1	2		
	2	12.5%		
6. I continue to use GT	3	15.62%	1.864	0.517
	4	11		
	5	10		

Table 4: Learners' Attitudes towards GT after Using It

From the results, it is clear that learners developed positive attitudes regarding their GT use in the Written Expression module. They could use the site more comfortably to accomplish writing tasks, supporting their writing performance as a cognitive strategy. (Ghaouar et al., 2019). Their writing improvements were apparent wherein it endorsed correct grammar, fewer spelling mistakes and different sentence patterns. Affirming the continuity of GT implementation during performing writing assignments refers to the utility of the site sustaining learners' writings (Chon & Shin, 2020).

# 5. Conclusion

Advanced technologies, inevitably, influence language learning. This article investigated the translation proficiency of Google Translate by comparing students' self-written essays with essays they wrote with the help of GT. EFL Learners' attitudes

regarding the use of GT were also examined before and after the experiment. The results indicated that students of English had negative perspectives regarding GT before its use in the writing classroom. However, their attitudes were moderate as they expressed their will to utilize it for future written assignments. The experimental design, thus, revealed that the essays that learners wrote with the help of GT presented several writing components that were significantly impacted by GT.

Because using Google Translate to produce translated passages differs from using Google Translate in EFL writing, it is critical to, carefully, explore if and how including Google Translate in EFL writing may improve students' writing skills. There are, still, some intriguing issues that need to be investigated further, both qualitatively and quantitatively, in order to understand better the possible influence on English learning caused by the students' L1 and English proficiency, the tool's incorporation into other courses or genres, and student reception across different contexts. Studies for EFL students at higher English levels should be performed.

### 6. References

- Al Aggoune, A., & Ghaouar, N. (2021). Rethinking writing instruction through call incorporation: EFL teachers' insights and practices. *Social and Human Sciences Review*, 22(1), 529-542. Retrieved from: https://www.asjp.cerist.dz/en/article/161719
- Alhaisoni, E., & Alhaysony, M. (2017). An investigation of Saudi EFL university students' attitudes towards the use of Google translate. *International Journal of English Language Education*, 5(1), 72-82. doi: 10.5296/ijele.v5i1.10696
- Azer, H., S. (2015). An evaluation of output quality of machine translation (Padideh Software vs Google Translate). Advances in Language and Literary Studies, 6(4), 226–237. doi:10.7575/aiac.alls.v.6n.4p.226
- Bernardino, S. (2016). Discovery learning in the language for translation classroom. *Cadernos de Traducao*, *36*(1), 14-35. Retrieved from: https://doi.org/10.5007/2175-7968.2016v36nesp1p14
- Chen, M., Huang, S., Chang, J., & Liou, H. (2015). Developing a corpus-based para phrase tool to improve EFL learners' writing skills. *Computer Assisted Language Learning*, 28(1), 22-40. Retrieved from: https://doi.org/10.1080/09588221.2013.783873
- Chon, Y., V., & Shin, D. (2020). Direct writing, translated writing, and machinetranslated writing: A text level analysis with Coh-Metrix. *English Teaching*, 75(1), 25-48. Retrieved from: https://doi.org/10.15858/engtea.75.1.202003.25
- Clifford, J., Merschel, L., & Munné, J. (2013). Surveying the landscape: What is the role of machine translation in language learning?. *Monograph: The Acquisition of Second Languages and Innovative Pedagogies, 10,* 108-121. doi: 10.7203/attic.10.2228
- Coe, N., Rycroft, R., & Ernest, P. (1983). Writing Skills: A Problem-Solving Approach for Uper-intermediate and more Advanced Students (3rd ed). Cambridge: Cambridge University Press.
- Cook, G. (2010). *Translation in language teaching: An argument for reassessment*. Oxford: Oxford University Press.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2015). *How to design and evaluate research in education*. New York: Mc Graw Hill Education.
- Fredholm, K. (2015). Online translation use in Spanish as a foreign language essay writing: Effects on fluency, complexity and accuracy. *Revista Nebrija de Lingüística Aplicada. 18.* Retrieved from: https://www.nebrija.com/revista-linguistica/files/articulosPDF/articulo\_54ff41bcb4d19.pdf

- Gestantil, R., A., Nimasari, E., P., & Mufanti, R. (2019). Re-overviewing Google translate results and implications in language learning. The *Asian EFL Journal*, 23(3.2), 5-15.
- Ghaouar, N., Laiche, S., & Belhadi, S. (2019). Computer mediated communication and vocabulary learning: The case of Facebook. *Ethical Lingua Journal of Language Teaching and Literature*, 6(2), 98-116. doi: 10.30605/25409190.v6.98-116
- Ghasemi, H., & Hashemian, M. (2016). A comparative study of Google translate: An error analysis of English-to-Persian and Persian-to-English translations. *English Language Teaching*, 9(3), 13-17. doi: 10.5539/elt.v9n3p13
- Godwin-Jones, R. (2015). Contributing, creating, curating: Digital literacies for language learners. *Language Learning & Technology*, *19*(3), 8-20. Retrieved from: http://llt.msu.edu/issues/october2015/emerging.pdf
- Hampshire, S., & Salvia, C. P. (2010). Translation and the internet: Evaluating the quality of freeonline machine translators. *Quaderns: Revista de Traducció, 17*, 197-209. Retrieved from: https://ddd.uab.cat/pub/quaderns/11385790n17/11385790n17p197.pdf
- Harmer, J. (Ed.). (2007). How to Teach English. Harlow: Pearson Education Limited.
- Hayes, J., R., & Flower, L. (1980). Identifying the organization of writing process. in L., W., Gregg, & E., Steinberg. (2017). *Cognitive processes in writing* (2<sup>nd</sup> Ed). Oxon: Routledge.
- Herlina, N., Dewanti, R., & Lustyantie, N. (2019). Google translate as an alternative tool for assisting students in doing translation: A case study at University Negeri Jakarta, Indonesia. BAHTERA: Jurnal Pendidikan Bahasa dan Sastr, 18(1), 70-78. doi: 10.21009/BAHTERA.181.06
- Hutchins, W., J. & Somers, H., L. (1992). An introduction to machine translation. London: Academic Press.
- Johnson, D. W., & Johnson, R. (1989). *Cooperation and competition: Theory and research*. Edina: MN: Interaction.
- Karim, K., & Nassaji, H. (2013). First Language Transfer in second language writing: An examination of a current research. *Iranian Journal of Language Teaching Research*, 1(1), 117-134.
- Kumar, A. (2012). Machine translation in Arabic-speaking ELT classrooms: Applications and implications. *International Journal of Social Science and Humanity*, 2(6), 442-445. doi: 10.7763/IJSSH.2012.V2.142
- Lee, S., M. (2020). The impact of using machine translation on EFL students' writing. *Journal of Computer-Assisted Language Learning*, *3*(3), 157-175. Retrieved from: https://doi.org/10.1080/09588221.2018.1553186

- Li, H., Graesser, A. C., & Cai, Z. (2014). *Comparison of Google translation with human translation*. The 27<sup>th</sup> International Conference of Florida Artificial Intelligence Research Society. Florida: Association for the Advancement of Artificial Intelligence.
- Maulidiyah, F., & Malang, p., N. (2018). To use or not to use Google translate in English language learning. *Jurnal Liguistik Terapan*, 8(2), Retrieved from: http://jlt-polinema.org/?p=996
- Medvedev, G. (2016). Google translate in teaching English. *The Journal of Teaching English for Specific and Academic Purposes, 4*(1), 181-193.
- Niño, A. (2020). Exploring the use of online machine translation for independent language learning. *Research in Learning Technology*, 28(2402). doi: 10.25304/rlt.v28.2402
- Nunan, D. (Ed.). (1989). *Designing Tasks for the Communicative Classroom*. Cambridge: Cambridge University Press.
- Prichard, C. (2008). Evaluating L2 readers' vocabulary strategies and dictionary use. *Reading in a Foreign Language*, 20(2), 216-231. Retrieved from: http://nflrc.hawaii.edu/rfl
- Raheem, B., R. (2020). The role of machine translation in language learning. *International Journal of Academic Research*, 74(4), 60-67.
- Raza, M., A., & Nor, F., M. (2018). Google translate in EFL classroom. International *Journal of Translation*, *30*(1). 9-21. doi: 10.6084/m9.figshare.11640240
- Richards, C, J. (Ed.). (2004). *Second Language Writing*. Cambridge: Cambridge University Press.
- Russel, J., S., & Norvig, P. (2010). *Artificial Intelligence: A Modern Approach* (3<sup>rd</sup> Ed). Prentice: Hall.
- Shukri, N., A. (2014). Second Language Writing and Culture: Issues and Challenges from Saudi Learner's Perspective. *Arab World English Language*, 5(3), 190-207
- Sing, Y., K. (2206). *Fundamental research methodology and statistics*. New Delhi: New Age International Ltd.
- Supnithi, T., Trakultaweekoon, K., Na Chai, W., Ruangrajitpakorn, T., & Wong, A. (Eds). (2010). *The effects of using automatic machine translation for motivating reading skills*. The 18<sup>th</sup> International Conference on Computers in Education. Putrajaya: Asia Pacific Society for Computers in Education.
- Tsai, S., C. (2019). Using Google translate in EFL drafts: A preliminary investigation. Computer Assisted Language Learning, 32(5.6), 510-526. doi: 10.1080/09588221.2018.1527361

- Wu, Y., Schuster, M., Chen, Z., Quoc, V., L., & Norouzi, M. (2016). Google's neural machine translation system: Bridging the gap between human and machine translation. Computation and language. Retrieved from: https://arxiv.org/pdf/1609.08144.pdf
- Yang, Y., & Wang, X. (2020). Predicting students translators' performance in machine translation post-editing: Interplay of self-regulation, critical thinking, and motivation. Interactive Learning Environment. doi: 10.1080/10494820.2020.1786407.Nin

# 7. Appendices

# 7.1 The Pre-questionnaire

### Dear students,

You are kindly inquired to fill in the following survey to gather data as a part of research. The study aims to investigate students' attitudes towards using *Google Translate* as a learning tool.

## Section one:

1. Indicate your age:
a. [19-21] b. [22-24] c. [25-27] d. More than 27.
2. How do you rate your writing in English?
a. Excellent b. Good c. Fair d. Poor e. Very poor
3. Which of the followings you have problems with when you write?
<ul> <li>a. Vocabulary</li> <li>b. Grammar</li> <li>c. Sentence structures</li> <li>d. Spelling mistakes</li> <li>e. Punctuation and capitalization</li> <li>f. Organization of content</li> <li>g. Finding ideas</li> </ul>
4. Do you use <i>Google Translation</i> ?
a. Yes b. No

### Section two:

On a scale from 1 to 5 (1  $\rightarrow$  strongly agree, 2  $\rightarrow$  agree, 3  $\rightarrow$  undecided, 4  $\rightarrow$  disagree, 5  $\rightarrow$  strongly disagree), choose the appropriate answer for you.

a. I use GT to check the meaning of words.	1	2	3	4	5
b. I use GT to translate sentences.	1	2	3	4	5
c. The use of GT saves time.	1	2	3	4	5
d. I use GT because I am not confident in my writing.	1	2	3	4	5

## 7.2 The Post-questionnaire

Dear students,

You are kindly inquired to fill in the following survey to gather data as a part of research. The study aims to investigate students' attitudes towards using *Google Translate* as a learning tool after using it. On a scale from 1 to 5 (1 $\rightarrow$  strongly agree, 2 $\rightarrow$  agree, 3 $\rightarrow$  undecided, 4 $\rightarrow$  disagree, 5 $\rightarrow$  strongly disagree), choose the appropriate answer for you.

a. I am satisfied to use GT.	1	2	3	4	5
b. GT helps improving my writing.	1	2	3	4	5
c. GT helps writing correct grammar.	1	2	3	4	5
d. GT helps writing different sentence patterns.	1	2	3	4	5
e. GT helps avoiding spelling mistakes.	1	2	3	4	5
f. I continue to use GT	1	2	3	4	5