

# Exploring the Use of Machine Translation in English-Medium Higher Education Contexts: Perspectives from Omani EFL Students

Dr. Hatem Essa

University of Technology and Applied Sciences, Sur, Oman & Al-Mergib University, Alkhums, Libya

Dr. Awad Alhassan

Associate Professor in Applied Linguistics & TESOL, Dhofar University, Salalah, Oman

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## Abstract

There has been a significant increase in the use of machine translation by university students as part of their coping strategies for their English-medium study. This practice has been a subject of debate among educators. Some argue that advancements in technology have made machine translation a valuable learning tool, while others remain skeptical, questioning its pedagogical benefits. This study is an attempt to explore Omani EFL students' perceptions and attitudes regarding the use of machine translation as a coping strategy in their English-medium content learning activities. A qualitative research design, employing an open-ended survey and semi-structured interviews, was used in the study. Thirty-five students enrolled on different English-medium majors at a public Omani university voluntarily participated in the investigation. The data was analysed thematically and inductively. Results showed that all participants reported using machine translation for various learning activities, including looking up the meanings of discipline-specific terminology and translating individual sentences and longer texts from English to Arabic and vice versa. Some participants noted that machine translation tools tend to perform better when translating from Arabic to English compared to translating from English to Arabic. However, participants also highlighted several challenges related to the use of machine translation as a coping learning strategy. The implications for translation pedagogy and research are discussed.

Keywords: coping strategies, English-medium, EFL, machine translation, higher education



# 1. Introduction

Machine translation (MT) technologies, such as Babylon, Bing, and Google Translate, have developed considerably during the past decade. Since they are freely available on several devices, students, for whom English is a second or foreign language, have been consistently using this technology in their learning (Lee, 2020; Mundt & Groves, 2016). Furthermore, the quality of MT has seen significant improvement, resulting in instantaneous translation that can be used as a valuable reading or writing aid for students whose native language differs from the one used in their educational institution (Mundt & Groves, 2016). For example, students may use MT systems to help them enhance their lexico-grammatical knowledge (Bahri & Mahadi, 2016; Doherty & Kenny, 2014; Lee, 2020) and improve reading comprehension and writing skills (Alhaisoni & Alhaysony, 2017; Garcia & Pena, 2011; Ryu et al., 2022). In addition, several researchers argue that MT can reduce language anxiety (Bahri & Mahadi, 2016; Jin & Deifell, 2013), enhance motivation and confidence (Kliffer, 2008), and establish a nonthreatening learning environment (e.g., Nino, 2009).

However, previous research also acknowledges the limitations of MT. These include issues like generating erroneous sentences, inaccurate lexis, grammar inaccuracies, literal translations, and ambiguity (Bahri & Mahadi, 2016; Josefsson, 2011; Lee, 2020; White & Heidrich, 2013). As a result, some content and language instructors are skeptical about the implementation of MT in classroom settings (Briggs, 2018; Clifford et al., 2013). Thus, the widespread use of MT by learners in writing tasks, for instance, presents instructors with a dilemma. Approaches to addressing this issue generally fall into two categories:

(i). regarding MT use as cheating and a form of academic dishonesty, thus highlighting its disadvantages and suggesting methods for detecting, responding to, and preventing it (Innes, 2019; O'Neill, 2013; Stapleton & Kin, 2019). However, given the availability and accessibility of MT, learners would inevitably use it in their learning. Some measures are therefore needed to maintain academic integrity and ensure that learners use MT sensibly and ethically.

(ii). considering MT as a potential learning aid and thus emphasizing its advantages and proposing the incorporation of MT tools into the curriculum (e.g., Jiménez-Crespo, 2017; Jolley & Maimone, 2015; Mundt & Groves, 2016; Vold, 2018). This point seems to be plausible but clear definitions of appropriate and inappropriate uses are necessary to ensure the proper use of MT in the curriculum (Mundt & Groves, 2016). This involves educating students about the strengths and limitations of MT, as well as teaching them how to critically evaluate and revise machine-translated texts.

As we shall see below, several studies have explored students' perceptions of the use of MT in their learning activities (Ata & Debrali, 2021; Clifford et al., 2013; Lee, 2020; Case, 2015; Niño, 2009; Xu, 2022). However, only a limited number of studies have concentrated on students' perceptions of MT through qualitative and open survey-based approaches (Jolley & Maimone, 2015; Korošec, 2012). Furthermore, there is a noticeable lack of studies, in Omani context, devoted to the investigation of the experiences of EFL students, enrolled on English-medium majors, in relation to the use of MT as a coping learning strategy. Consequently, this study duly aims to address this research gap by examining the experiences



of undergraduate students regarding the use of MT in their English-medium learning activities.

# 2. Literature Review

Previous studies investigating the use of MT systems in teaching and learning have focused on several aspects: how learners use MT tools (e.g., Garcia & Pena, 2011; Jolley & Maimone, 2015); the perceptions of instructors and learners regarding MT (e.g., Clifford et al., 2013; Jolley & Maimone, 2015; Niño, 2009; White & Heidrich, 2013; Lee, 2020); the impact of MT use on language learning (e.g., Niño, 2004; Farzi, 2016); and how instructors should react to learners using MT systems (e.g., Mundt & Groves, 2016).

# 2.1 The use of MT for general translation

To examine the output quality of MT, Kadhim et al. (2013) investigated the translation quality of Babylon and Google in translating Arabic news headlines into English. Forty Arabic news headlines were selected from three online sources (Aljazeera, Aawsat, and Dar Alhayat), all of which had manually translated English versions available. A questionnaire was distributed to 28 experienced professionals who were native speakers of Arabic and asked to evaluate the outputs to assess and determine which system was more effective in translating the collected data. The results indicated that both GT and Babylon achieved clarity scores of 80%. GT, however, scored higher in terms of accuracy, with 77.5% compared to 75% for Babylon. These findings suggest that online MT is evolving, leading to improvements in its accuracy and clarity.

# 2.2 Perceptual and attitudinal studies of MT in language learning

As mentioned earlier, several studies have investigated the attitudes and perceptions of learners and instructors regarding the use of MT in language learning. For example, Niño (2009) surveyed 16 advanced students of Spanish who had completed a ten-week introductory course involving the post-editing of MT. The students were asked six open-ended questions (e.g., whether they intended to use MT in the future; whether they considered MT a useful language tool; and whether they believed that MT post-editing helped them improve their level of Spanish). Furthermore, 30 language tutors of foreign languages were surveyed to explore their attitudes and views toward translation and MT as pedagogical tools in language classes. The results revealed that 93% of the students reported using MT systems for post-editing, and 75% believed that MT is a helpful language tool. Regarding the use of MT for pedagogical purposes, 70% of the language tutors stated that they had used it before, but only 23% had implemented it in their classes. This led Niño to conclude that since the use of MT was viewed as a positive and beneficial "learning experience" by both language tutors and learners, it is important for advanced foreign language students to be introduced to MT and made aware of its shortcomings.

In another study, Clifford et al. (2013) explored learners' and instructors' attitudes and perceptions regarding the use of MT. The participants were undergraduates studying French, Italian, Spanish, and Portuguese at Duke University. The first phase of the study involved 356 Spanish language students from first to fifth semester courses. A paper survey was distributed in class, with questions focused on how students approach second language writing



assignments. The results were in line with Niño's findings, as 76% of the students reported that they had used MT before. Furthermore, 78% perceived MT as somewhat accurate, and 89% of the MT users stated that they found MT helpful. In the second phase, the researchers administered surveys to 905 undergraduates studying Spanish and three other languages (mainly French, Italian, and Portuguese). Furthermore, 43 foreign language instructors were involved in the second phase. The study showed that students primarily used MT for vocabulary (91%). Moreover, they used MT to translate individual words (89%), short phrases (62%), full sentences (16%), and short paragraphs (7%). As for the instructors, approximately half of them regarded the use of online MT as equivalent to cheating. Interestingly, the majority of instructors considered online MT as either unhelpful or moderately unhelpful for elementary and intermediate students. Therefore, they suggested its use in advanced language classes.

Similarly, Jolley and Maimone (2015) conducted a study to investigate how Spanish learners and instructors perceive and use online machine translation tools, focusing on assessing their quality and ethicality. The findings were consistent with those of previous studies, as nearly all students used MT tools for language learning, although the frequency of usage varied among them. The researchers found that many students considered free online MT beneficial for their language learning and wanted instructors to provide strategies for using it effectively. As for the instructors, the survey revealed that most of them used online MT tools for teaching or personal purposes. They, like students, believed that online MT tools were more accurate for translating individual words. However, over 60% of them considered translations of longer texts to be ineffective. Furthermore, over 85% of them regarded the use of online MT for longer texts as "unethical" or "equivalent to cheating."

# 2.3 The use of GT for language writing tasks

To explore these issues further with a different language group and data collection method, Tsai (2019) examined the perceptions of the use of GT as a composition tool by 124 adult Chinese EFL students. The study involved students watching 5-minute movie clips and then writing reflective essays based on them. They initially wrote in Chinese and then translated their texts into English using GT. The results showed that students found writing with GT easier than writing in English. This is because it helped minimize grammatical and spelling errors while providing access to a greater variety of vocabulary options. Furthermore, using GT for revising their writing significantly improved the quality of students' self-written English texts.

In a similar study, Lee (2020) explored the role of MT as a computer-assisted language learning (CALL) tool in EFL writing. Thirty-four university EFL learners participated in the study. They were asked to use GT to create a text in their L1, translate it without GT assistance, and then correct the second language (L2) text using GT for comparison. Unlike previous studies that focused on students editing translations provided by MT, this study required students to translate their own L1 writing into their L2 without using MT. They then revised their L2 writing with the help of MT translations for comparison. The findings showed that using GT helped learners reduce lexico-grammatical errors and improved their revisions. Furthermore, analysis of the students' writing revealed that MT improved vocabulary and grammar accuracy in students' revisions. The study concluded that while MT can be beneficial for language



learning, teachers must be aware of its limitations and provide appropriate guidance to maximize its effectiveness.

Finally, Alhaisoni and Alhaysony (2017) investigated Saudi EFL university students' attitudes toward the use of GT. Ninety-two Saudi EFL students participated in the study, in which a questionnaire was used as the method of data collection. The findings revealed that nearly all participants reported using GT, primarily for vocabulary, writing, and reading. Translation, however, was the least used feature of GT. It should be noted that while the students reported that GT translates texts rapidly and provides translations of higher quality than their own, they also highlighted some drawbacks associated with GT (e.g., literal or inaccurate translations). Consequently, they often had to post-edit their work or seek help from their teachers. The students also expressed a desire for their instructors to provide training or guidance on the effective use of MT tools.

To summarize, previous studies have demonstrated that nearly all students use MT tools and find them beneficial in their academic work. It should be noted that while students believe that MT tools are useful, they are also conscious of their shortcomings. Consequently, many of them revise the translated texts to enhance both accuracy and coherence. This self-editing process reflects a strong awareness of MT's flaws. However, the studies also indicate that students still require guidance from teachers to effectively navigate and refine these translations. However, there is an apparent lack of research on the use of MT by EFL students who are enrolled on English-medium programmes of study majors other than English or other languages. The present study, therefore, aims to fill this gap by exploring and better understanding the perceptions and attitudes of Omani EFL non-English major EFL students regarding the use of MT tools as a coping learning strategy in their English-medium learning activities.

# **3. Research Methodology**

# 3.1 Participants

Thirty-five undergraduate college students participated in the study. All participants were native speakers of Omani Arabic and were studying at a public university in Oman. English is a foreign language for them, and they are enrolled on different English-medium majors. They came from multiple departments, including IT, Communication, and Biotechnology. Among the participants, there were 25 second-year students (2 males and 23 females) and 10 final-year students (4 males and 6 females). Their ages ranged from 19 to 23, with a mean age of 20.24. Students voluntarily took part in the study after signing a consent form in accordance with ethical research practices. They were reassured that the collected data was for research purposes only and that their identities would not be disclosed in any reports or research findings. Additionally, they were also given the freedom to withdraw from the research at any time without providing a reason.

Part of the selection criteria was to ensure that the participants chosen for the study have a prior experience of using MT tools in their learning activities. This allowed the researchers to obtain informed responses about the issues under investigation (Denscombe, 2010). Semi-structured



interviews were chosen to provide detailed insights into the participants' "views, understandings, interpretations, and experiences" (Mason, 2002, p. 63). The researchers followed up on participants' responses by probing for further clarification or unexpected answers (Kvale, 2006; Robson, 2011). Each interview lasted between 20 and 40 minutes.

# 3.2 Methods of data collection

A qualitative methodology was employed, utilizing both an open-ended questionnaire and semi-structured interviews (see Appendices A & B). Participants were asked to respond in writing to the survey questions, which focused on their experiences of using MT as a supplementary learning tool for English-medium content learning. Both the survey and interviews were conducted in English, but students were given the freedom to respond in either English or Arabic or a mix of both to ensure that any potential language barrier does not affect students' ability to talk and provide elaborate responses.

The survey consisted of two parts. The first part included two sections: (i) section one sought participants' demographic information (e.g., age, gender, field of study, year); (ii) section two included questions to elicit information about MT familiarity and whether students were using any MT tools. The second part focused on students' attitudes and perceptions toward the use of MT. The survey was administered to the participants during regular class time. To supplement the survey data, additional short face-to-face, tape-recorded semi-structured interviews were conducted with six participants who completed the survey and were willing to provide further information on their responses. During the interviews, students were asked to reflect further on their experiences and reasons for using MT. The primary purpose of the interviews was to address any potential gaps in the survey data and to gain a deeper understanding of students' reasons for using MT. The interviews were recorded with the participants' consent. Since students were given the option to speak either in English or Arabic, some students responded in Arabic in both the survey and interviews and the Arabic responses from both the survey and interviews were translated into English by the researchers. The translation was then checked by a professional translator to ensure accuracy. Each interview lasted between 5 and 10 minutes. The interview data was transcribed verbatim. The Arabic responses in the interviews were transcribed and coded in Arabic. Following the coding of the interview transcripts, only the relevant bits were translated into English and reproduced in the data analysis Section. The same practice was followed for the Arabic survey responses.

# 3.3 Data coding and analytical procedure

Following the qualitative research design, both the collected open-survey data and the transcribed interview data were thematically coded and analyzed. An open coding approach (Saldaña, 2009; Miles & Huberman, 1994) was employed to generate as many themes related to the research questions as possible (Braun & Clarke, 2021). This process involved reducing data by assigning labels to generate themes, categories, and concepts for reporting in the analysis through description and explanation. A cross-sectional approach was applied to coding and analysis to produce a range of themes that accurately capture participants' views on the issues under investigation (Coffey & Atkinson, 1996; Mason, 2002; Miles & Huberman, 1994).



The most salient and recurrent themes identified through the coding process were reproduced in the data analysis to capture the study participants' insider emic perspectives. To ensure accuracy, credibility, and trustworthiness in accordance with the traditions of qualitative data analysis, both coding schemes for both the survey and the interview transcripts were checked and validated by two independent raters with backgrounds in applied linguistics and qualitative research to maintain inter-rater reliability (Coffey & Atkinson, 1996; Miles & Huberman, 1994). No significant coding disagreements were reported between the researchers' coding schemes and that of the raters.

## 4. Findings and Discussion

In this section, the findings from the analysis of both survey and interview data are presented and discussed in relation to the previous studies in the relevant literature. Regarding the first question about the types of MT used by participants and their reasons for using it, the survey results indicated that all participants reported using MT systems regularly, with Google GT identified as the most commonly used tool. Specifically, 25 out of 35 participants reported using GT, while only 3 participants used Bing, and 7 used both GT and Bing. Participants attributed this preference to GT being the most popular, user-friendly, and free tool. This suggests that students may not be familiar with or exposed to other MT tools. The predominance of GT was further confirmed in the interviews, as illustrated by the following quote from one of the participants:

'I use Google Translate because it is free and easy to use'

In a similar line another participant said:

'I prefer Google Translate for its simplicity and broad language options'

However, other participants also reported using Bing alongside GT to further improve their translations:

'I also use Bing for additional verification'

These findings are consistent with previous studies (e.g., Tsai, 2019; Lee, 2020), which indicate that EFL students tend to rely heavily on GT for their learning due to its free, accessible, and user-friendly nature.

However, the limited use of other MT tools may be attributed to the fact that students, at least in our context, are not sufficiently exposed to or trained in using these tools. This suggests a need for educators to broaden students' engagement with a wider range of MT tools.

When asked about their reasons for using GT and Bing, participants provided several reasons, as summarized in the following table:



Reasons	Number of participants
Looking up meaning of unfamiliar words	35
Checking grammar	10
Translating from Arabic to English	32
Writing paragraphs	10
Translating difficult disciplinary text or lab reports	6

As for the second research question, when asked about the extent to which these technologies are helpful or unhelpful in the students' learning activities, the survey data revealed several benefits as illustrated in the following table:

 Table 2. Learning Activities Using MT tools

Learning activities	Number of participants
I find it very useful in translating longer texts for my class reading	1
<i>I write everything in Arabic for my assignments and after that I translate it into English</i>	20
<i>I list subject terminologies and use MT for translation to facilitate lecture understanding</i>	10
<i>I use MT to do my homework as we have lots of work and difficult to meet deadlines without using MT</i>	25

The survey findings were further confirmed in the interviews, as one participant put it:

'Google Translate has helped me to expand my vocabulary. By looking up unfamiliar words and seeing their usage in sentences, I've been able to learn new words and understand their context better.'

Similarly, another participant praised GT for enhancing their writing skills:

'GT has helped me improve my writing skills by providing alternative translations and suggestions. I often compare the suggested translations with my original text to understand different ways of expressing the same idea'

A similar sentiment was echoed by another participant who reported:



'I use Google Translate for my assignments. I sometimes read articles in Arabic about the topic of my assignment, and I select some parts from these articles and translate them from Arabic into English to help me understand some ideas and information to reproduce into my assignments'

Furthermore, reading skills were reported to have improved, as illustrated by the following quote:

'Using Google Translate has enhanced my reading skills. When I come across difficult texts, I translate them to understand the meaning and then try to read them again in the original language to reinforce my comprehension'

GT was also praised by participants for its role in enhancing grammar:

'It has helped me improve my grammar. By checking the grammar of my sentences through translations, I've been able to identify and correct my mistakes'

Unsurprisingly, students in the current study use MT tools to support their learning and find them to be an effective coping strategy in their English-medium study. These findings on the learning benefits of MT tools corroborate previous research (e.g., Alhaisoni & Alhaysony, 2017; Jolley & Maimone, 2015; Lee, 2020; Niño, 2005), in that EFL students consistently employ MT tools as a coping mechanism to assist them with various learning activities.

Finally, regarding the challenges faced by students when using MT tools, the survey data analysis revealed various challenges, as summarized in Table 3:

 Table 3. Challenges Experienced by Students When Using MT tools

Challenges	Number of participants
Inaccuracy of translation	9
Lack of equivalent for some technical and discipline- specific terms	16
Literal translation	24
Not helpful for academic writing in terms of paragraph structure, citation, and referencing	14
Always need intervention to modify text	20

These findings were further supported by the interview data. Participants reported that the use of MT tools negatively impacted their creativity and self-dependence in learning, as illustrated by the following excerpt from one of the participants:

'The tool is useful, and I use it but not all the time. I really don't want to use it all the time because I want to develop myself. When someone needs to develop their



language skills, they shouldn't rely on Google translate to do everything for them. They should depend on themselves and try and read and explore on their own'

Furthermore, another participant highlighted the inadequacy and ineffectiveness of MT in translating some discipline-specific terminology:

'I sometimes don't find what I exactly look for in Google Translate. I remember once I was trying to translate some terms and concepts in my field but unfortunately, I felt that the translation was not that good and helpful, so I finally went to my teacher and asked for more explanation of the lecture'

In the same vein, the lack of contextualized translation was also reported as a challenge, as illustrated by the following excerpt from one of the participants:

'Google Translate sometimes fails to capture the context, especially in longer paragraphs. When this happens, I break the text into smaller sentences and translate them individually to improve accuracy'

As noted above, students reported that using MT tools as a coping strategy in their Englishmedium study have both benefits and challenges. The findings also revealed that students in this context tend to use certain MT, particularly GT, more frequently than other tools. This preference may be attributed to the ease of access and free availability of these tools, along with the limited exposure of students to other alternative MT options. Furthermore, the findings indicate that students found MT tools to be ineffective for addressing specific academic needs. In particular, students highlighted the limitations of MT tools in supporting essential skills like academic writing, referencing, and citation.

# 5. Conclusion and Implications

This small-scale qualitative study intended to explore EFL students' experiences with MT tools as a coping learning strategy in contexts where subject content is taught in English. The primary objective of the study was to gain insights into students' experiences with MT tools in order to provide some pedagogical implications that could enhance their educational experiences in English-medium contexts. The study was conducted within a single educational context in Oman, and it used a qualitative methodology with an open-ended survey along with semistructured interviews as the main methods for data collection. It was also beyond the scope of the current study to include instructors in the investigation, who, if included, could have offered additional illuminating insights into the students' use of MT tools. Given both the contextual and methodological limitations of the study, caution should be taken when interpreting the study findings and implications as they may not be fully representative of all educational contexts. Further research is, therefore, needed to unpack the wide range of experiences of EFL students' coping learning strategies in English-medium contexts. Future studies, for instance, could employ mixed methodologies with large-scale questionnaires, reflective accounts, artifacts, interviews and observations to further explore the MT tools in various educational contexts where EFL students are enrolled in English-medium programmes of study. Such



large-scale studies with both contextual and methodological expansion could provide more multi-perspective insights into the use of MT tools by students. Despite these acknowledged limitations, the present study has revealed several benefits and challenges associated with the use of MT tools as a learning strategy. In light of the study findings, several pedagogical implications can be discussed. First, students should be discouraged from the overuse of and/or over-reliance on MT tools as this might limit their creativity and self-dependence. Indeed, this was clear in the findings as students expressed some concerns about the extent to which they should depend on such technologies for their English-medium disciplinary learning. Second, content educators should consider the integration of MT tools as part of English-medium subject content delivery and learning activities because this could facilitate and improve students' learning when they critically engage in such tools. To do so, subject educators can collaborate, whereby possible, with translation teachers to ensure that both content and language are effectively learned. However, it is essential to highlight to students both the limitations and benefits of MT to maximize its effectiveness. This includes, for instance, educating students about its strengths and weaknesses and teaching them how to evaluate and revise machine-translated texts effectively. This would, in turn, evoke the role of educators in guiding and training students on how to effectively explore and make use of these growing translation technologies in their learning experiences. One way to achieve this is perhaps by assigning more learning activities, involving both formative and summative assessment, that require the use of MT tools and require students to critically evaluate and review the translated texts. Finally, to avoid the potential shortcomings of MT tools in translating disciplinary terminologies and/or in responding to students' English-medium disciplinary learning needs, teachers could design some bespoke discipline-oriented and specialized parallel corpora involving both the source and target language texts and make them accessible to students to explore and consult for their various English-medium disciplinary learning needs.

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# Appendices

# **Appendix A: The survey**

## MT questionnaire

We are conducting a small-scale research project on students' use of translation programmes in their study. Please respond to the following open-ended questions and provide as many details as you can. You can answer in Arabic or English.

Name:

Age:

Gender: Male female

**Department:** 

year

I consent to the result of this survey to be shared with interested parties and used in conference presentations and research publications in an anonymized format.

YES

NO

1. Here is a list of some commonly used Translation programmes.

## A. SDL Trados

**B. MultiTrans** 

- C. Google Translate
- **D.** MetaTexis
- **E. Bing Transltor**
- F. Babylon
- G. DeepL Translator

## h. Other MT programmes

Which one(s) do you use most?

\_\_\_\_\_

\_\_\_\_\_



2. How often do you use them?

\_\_\_\_\_

\_\_\_\_\_

3. What do you use these programs for? Please give details (e.g, a. look up the meaning of unfamiliar words; translate sentences from English to Arabic or vice versa, translating paragraphs; reading and writing ...etc)

\_\_\_\_\_

4. Describe in detail your experience with the use of these translation programs in your study.

\_\_\_\_\_

5. How do you deal with the translated text? Modify it or take as it is? Please provide some examples.

-----

6. If you were asked to recommend some of these translation programs to your fellow students? Which one(s) would you recommend? Please justify.

\_\_\_\_\_

7. Can you recall a time when you found these translation technologies extremely useful and helpful for your study and learning activities? Please give more details.

\_\_\_\_\_

8. Do you find any challenges when using these technologies? Please specify.

\_\_\_\_\_

9. Can you recall a specific instance when you found the translation tools to be extremely useless or unhelpful in your study and learning activities?

Please give more details.

\_\_\_\_\_

10. Finally, do you have any extra comments regarding your experience with the use of translation technologies?

\_\_\_\_\_

Thank you very much for your participation



# Appendix B: The interview questions

- 1. You mentioned that you prefer to use GT. Can you describe in more detail why you prefer the specific translation program(s) you use most often? What features or aspects make it (or them) particularly useful for you?
- 2. Can you recall any specific instances where Google Translate provided an inaccurate translation? How did you handle it?
- 3. In your previous answer you mentioned using these programs for various tasks. Are there specific tasks where you find one program more effective than others? If so, which tasks and which programs?
- 4. You mentioned that you modify the MT outputs. When modifying translated texts, are there any common types of errors or issues you frequently encounter? How do you usually address these issues?
- 5. You recommended students to use GT. What criteria do you use to determine which translation program to recommend to your peers?
- 6. Do you think Google Translate has made you more dependent or helped you become more independent in language learning?
- 7. Finally, would you like to add any more comments to what we have covered during this short interview?



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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

## Data sharing statement

No additional data are available.

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