

**The Effectiveness of Using Computer-Assisted Translation
Tools for Developing Translation Skills for EFL Learners**

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Abstract

The present study aimed to investigate the effectiveness of using Computer-Assisted Translation tools for developing translation skills for EFL learners. The study used the one group pre-posttest design. Thirty learners from the EFL Institution, Cairo, were randomly chosen to participate in the study. Instruments of the study included a list of translation skills to determine the skills needed to be developed, a suggested unit based on using CAT translation tool (TRADOS), a pre-posttest of translation skills. Results showed that using the suggested tool significantly improved the students' translation skills. It was recommended that CAT translation tool should be used in training learners on translation courses. Suggestions for further studies are provided in the light of the results of the present study.

Keywords: CAT tools- translation skills- EFL learners

فاعلية استخدام أدوات الترجمة بمساعدة الحاسوب في تنمية مهارات الترجمة لدى دارسي اللغة الإنجليزية كلغة أجنبية

مستخلص الدراسة

هدفت هذه الدراسة إلى معرفة مدى فاعلية استخدام أدوات الترجمة بمساعدة الحاسوب في تطوير مهارات الترجمة لدى دارسي اللغة الإنجليزية كلغة أجنبية. استخدمت الدراسة الاختبار القبلي لمجموعة واحدة. تم اختيار ثلاثين دارساً بشكل عشوائي من معهد تدريس اللغة الإنجليزية كلغة أجنبية بالقاهرة للمشاركة في الدراسة. وتضمنت أدوات الدراسة قائمة مهارات الترجمة لتحديد المهارات المطلوب تنميتها، ووحدة مقترحة تعتمد على استخدام أداة الترجمة بمساعدة الحاسوب (TRADOS)، واختبار قبلي وبعدي لمهارات الترجمة. وأظهرت النتائج أن استخدام الأداة المقترحة أدى إلى تحسين مهارات الترجمة لدى الطلاب بشكل ملحوظ. ويوصى باستخدام أداة ترجمة بمساعدة الحاسوب في تدريب الدارسين على الترجمة. وتم تقديم اقتراحات لمزيد من الدراسات في ضوء نتائج الدراسة الحالية.

الكلمات المفتاحية: أدوات الترجمة بمساعدة الحاسوب - مهارات الترجمة - دارسي اللغة الإنجليزية كلغة أجنبية

Introduction

Language serves as the medium through which individuals express their thoughts, feelings, and perspectives, playing an indispensable role in communication across various fields such as business, technology, science, and entertainment. English has emerged as the universally recognized and accepted global language. Consequently, developing proficiency in English is of paramount importance for learners seeking to engage in international communication. Additionally, learners study English with the goal of expressing their uniqueness and cultural heritage, thereby enhancing their chances of gaining admission to reputable academic institutions and securing favorable employment opportunities.

In the process of communication, learners often find themselves translating their cultural beliefs, ideas, thoughts, and personal information into another language. This process of translation is seen as a means of reproducing both meaning and thoughts contained within a text in one language into another language (Hatab & Lahlali, 2014). Translation serves as a vital tool for facilitating communication between people from diverse cultures and can take the form of written or spoken expression (Gilad, 2023). Cronin (2017, p. 119) asserts that translation is a craft, requiring practice and guidance, and a science, based on linguistic theories. This perspective suggests that translation can be regarded as both an art and a science simultaneously.

Gambier & Doorslaer (2017, p. 5) describe translation as a meticulous task that lacks rigid scientific rules, allowing for individual variations. Translation is inherently subjective, particularly when dealing with topics outside the realm of science, where each element may demand a unique interpretation. Inghilleri (2017) proposes that translation is a blend of science, art, and skill. It qualifies as a science due to the need for

understanding the structures and characteristics of the languages involved. It is an art because it demands creativity in presenting the translated work to readers unfamiliar with the original. Moreover, it is a skill that requires overcoming challenges in conveying the translation effectively, even when no direct counterpart exists in the target language.

Haggag (2017) and Montasser (2019, p. 13) critique the state of translation education in Arab schools, highlighting that translation instructors often excessively focus on vocabulary, reducing translation classes to mere rote exercises of words and phrases. Textbooks consist primarily of selected texts from various sources, such as newspapers, journals, and books, occasionally accompanied by practical tips and advice for learners and aspiring translators. Translation classes typically revolve around contrasting grammatical structures and vocabulary in two language systems, with the primary unit of translation being the word or sentence. This approach may lead learners to believe that translation is a literal word-for-word process, where words and grammatical structures can be swapped with their counterparts in a foreign language.

In most Egyptian Faculties of Arts and Education, translation courses are considered a fundamental part of undergraduate English programs. However, due to the limitations of traditional teaching methods for translation, there have been significant changes in the objectives, content, and teaching approaches of these courses to better meet the needs of learners today. To address these evolving needs, it has become essential to incorporate innovative TEFL (Teaching English as a Foreign Language) approaches and techniques when designing and delivering translation courses.

Numerous studies have emphasized the importance of integrating Computer-Assisted Translation (CAT) tools into the educational process.

These tools have gained prominence thanks to rapid advancements in computer science and related fields such as computational linguistics, comparable corpora, and terminology extraction. Translation technology has evolved into a standard practice in the field, a pivotal element of translation study, and a modern paradigm for translation instruction.

Kassem (2021) underscores that recent developments in Information Technology (IT) and its increased integration into education, coupled with a growing demand for proficient translators capable of swiftly and accurately translating large volumes of data across various disciplines, have led to a trend of incorporating technology into translation instruction. Initially, there was a belief that machines could entirely replace human translators, but this notion has faced criticism. Consequently, there is a growing consensus on utilizing technology as an aid to human translators (Cronin, 2017). In this context, CAT refers to the utilization of computer software and tools such as Translation Memory (TM), online dictionaries, terminology management, and corpora to streamline the translation process (Pietrzak & Kornacki, 2020, p. 20).

Recent study has supported the adoption of CAT, citing its positive impact on productivity and timeliness in translation work. Similarly, Kassem (2021) emphasized the value of integrating CAT into translation courses, noting that learners' successful utilization of such technology enabled them to overcome translation challenges and produce high-quality translated materials. Consequently, CAT has increasingly become an integral component of translation courses and translator training programs at both the undergraduate and postgraduate levels, offered by universities and private language institutes alike (Sanca, 2018).

According to Bussmann (2016, p. 712), CAT refers to the "process of utilizing a computer program to convert a natural-language text into an

equivalent text in another natural language." Similarly, Pietrzak and Kornacki (2020, p. 11) have defined CAT as "translation with the assistance of a computer program, typically containing a database of previously translated sentences, phrases, and other language segments, which the translator can consult before accepting, rejecting, or modifying the translation."

The importance of being proficient in using CAT tools and understanding them is closely linked to technical and instrumental skills, which are essential components of overall translation competence and a crucial requirement in the job market (Taghizadeh & Azizi, 2017). Rothwell et al. (2023) have noted that the ability to harness various computerized and translation-specific technologies provides a competitive edge for individuals who fully utilize available resources. It enhances their employability in the market and can result in higher remuneration compared to those who prefer traditional methods.

Sikora and Walczyński (2015, p. 122) have emphasized that developing translator competence necessitates the effective utilization of CAT tools, including both general and specialized translation technologies, along with proficiency in using the Internet and communication technologies.

As a result, the advent of translation technology has revolutionized the field, significantly impacting how translation is carried out, studied, and taught (Bilić, 2020). Furthermore, during the translation process, translators are presented with dictionary matches for words or phrases found within a sentence, with multiple dictionaries being consulted for this purpose. These dictionaries and glossaries become particularly valuable when the Translation Memory (TM) system fails to provide a suitable suggestion (Jaworski, 2017, p. 266).

Regrettably, many EFL (English as a Foreign Language) institutions in the Arab world neglect the importance of integrating CAT technology into their translation curricula. In rare instances, courses on technology in translation are offered as electives. However, these courses predominantly concentrate on theoretical aspects of machine translation, without offering practical experience with online translation programs. Consequently, these courses fall short in adequately preparing learners to become competent translators (Al-Jarf, 2017).

In general, there is a notable absence of comprehensive pre-service training programs centered on CAT technology to equip English majors with the essential skills required in this field. This deficiency may stem from the subpar results of machine translation systems, which have failed to consistently deliver fully automated, high-quality translations. Hence, there is a widespread belief that machines have limited utility in the realm of translation (Malenova, 2019).

Furthermore, there is a lack of agreement regarding the specific software that should be integrated into these courses. Additionally, the financial constraints faced by English language departments make it challenging to purchase translation software. Given these circumstances, there is an urgent need to modernize the existing translation curriculum by incorporating CAT technology. This update is essential to prepare proficient translators who can effectively utilize the latest trends in translation technology (Kassem, 2020).

CAT applications can assist learners in generating an initial draft, which then requires human intervention to correct grammar, select appropriate vocabulary, and ensure the intended meaning is accurately conveyed. This process, involving the translator's refinement of the draft, is known as post-editing. The draft serves a dual purpose: aiding learners in

translating texts into a foreign language and helping them understand the source text when translating into their native language. The level of contribution by learners to the draft depends on their proficiency in the language pair (comprising the source language and target language) (Al-Ahdal, 2020).

According to Kliffer (2005), most learners prefer to employ post-editing rather than starting translations from scratch. Furthermore, it was observed that post-editing significantly improved the quality of CAT output and helped learners reduce errors compared to the traditional translation approach (Nino, 2008). These findings have encouraged instructors to incorporate CAT programs into translation classes to enhance translation quality.

Another noteworthy aspect of this study, often overlooked in CAT research, is learners' motivation. Unfortunately, many CAT studies neglect the fact that translators are influenced by psychological factors, and motivation plays a crucial role in successful cooperation and interaction between translators and software (Naderi et al., 2021). In summary, this study argues that there is a positive correlation between motivation and learners' performance in translation, meaning that demotivated learners are more likely to avoid using CAT programs and achieve lower results in translation.

Kassem (2021) endeavors to design a course centered on CAT technology to introduce English majors to the principles, foundations, processes, and effective application of this recent technology. The study employs a quasi-experimental design with a sample of 60 learners from the Department of English at Prince Sattam bin Abdul-Aziz University. These participants are randomly selected and divided into two equivalent groups before undergoing a translation test assessed using a validated rubric and a

motivation scale. The experiment spans 15 weeks and reveals significant positive effects of CAT usage on learners' translation abilities and motivation.

Alotaibi (2020) assesses the usability of CAT tools from the perspective of translators. The Software Usability Measurement Inventory (SUMI) survey is employed to evaluate the system based on its efficiency, affect, usefulness, control, and learnability attributes. A total of 42 participants complete the online survey, with results indicating that the overall usability of these tools exceeds the average. The findings suggest that CAT tool developers should focus on enhancing the tool's helpfulness and learnability to improve the translator's experience and satisfaction levels.

Yahaya (2019) investigates the application of CAT in translation teaching, including designing teaching methods, utilizing software and hardware, managing teaching materials, storing educational resources, and establishing translation corpora. These aspects hold great importance for both translation teaching and practice. The study concludes that only when translation education is integrated with CAT technology can it meet the demands of the expanding translation market. Furthermore, applying CAT technology in translation teaching at universities is essential for aligning translation education with the evolving translation industry in this information age.

Based on the findings from numerous studies that recommend the integration of CAT tools into translation instruction to bridge the gap between classroom learning and the evolving industry requirements, the current study aimed to utilize CAT applications to enhance the translation skills of learners in an EFL Institution.

Context of the problem

The researcher, in the capacity of an instructor, noticed a lack of emphasis on practical translation skills within educational institutions, often overlooking the significance of developing learners' abilities to convey equivalent meanings and select appropriate vocabulary. Accurate translation was not given its due importance. Although EFL learners are required to practice translation skills in each unit of their textbooks, the translation tasks and activities are typically overlooked, and learners are not guided on how to transform concepts from their intended meaning into structures in another language. Furthermore, even when instructors do incorporate translation activities, they tend to rely on traditional strategies. Consequently, learners struggle to express themselves in writing, leading to academic difficulties and potential challenges in their future careers.

To address this issue, the researcher conducted a diagnostic test on translation skills, involving 40 learners at the EFL Institution. The analysis of the results revealed that a significant portion of learners exhibited poor performance in syntax, semantics, and pragmatics:

- 50% of learners made errors in choosing the correct words to convey meaning in the target language.
- 47% of learners made errors in employing accurate and suitable sentence structures.
- 45% of learners made errors in grammar and style usage.
- 47% of learners incorrectly inserted spaces in place of difficult words, without attempting to explain their meaning or make educated guesses.
- 25% of learners used punctuation incorrectly.
- 84% of learners failed to produce the correct form of the target text.
- 44% of learners were unable to select appropriate equivalents for items in the source text.
- 46% of learners could not convey cultural nuances and connotations.

- 54% of learners lacked understanding or the ability to decode the source text.
- 46% of learners struggled to adequately transfer the meaning into the target text.

These results suggest that EFL learners generally lack proficiency in English and have not acquired the necessary translation skills. Learners who did perform adequately often resorted to literal translation, providing literal meanings for sentences or avoiding problematic items, which led to a failure to provide suitable equivalents from the source text.

To gain further insight into this issue, the researcher conducted semi-structured interviews with a sample of learners and instructors at the EFL Institution. The results of these interviews revealed the following:

- Most learners complained that translation was neglected in teaching EFL. It is a homework activity or a task followed reading
- All instructors mentioned that translation task was neglected at all. Translation of simple sentences at the end of the lesson is the prominent. Although there is a question at the final test but a training or focused practice of translation skills was not involved.
- All instructors and learners expressed their desire of training on translation skills and having more practice, especially translating through CAT tools

Therefore, this study tried to find out the effectiveness of using CAT tools in developing some translation skills of EFL learners.

Statement of the problem

The problem addressed in this study can be summarized as follows: Some EFL learners lacked the necessary translation skills to effectively translate texts as part of their coursework. This deficiency had a detrimental impact on learners' overall performance in the EFL program. Hence, the

study aimed to investigate the efficacy of employing CAT tools in developing their translation skills.

Questions of the study

The study tried to answer the following questions:

What was the effectiveness of using Computer-Assisted Translation tools on developing some translation skills of EFL learners?

This main question could be sub-divided into the following questions:

1. What was the effectiveness of using Computer-Assisted Translation tools on developing Accuracy skills?
2. What was the effectiveness of using Computer-Assisted Translation tools on developing lexical translation skills?
3. What was the effectiveness of using Computer-Assisted Translation tools on developing pragmatic translation skills?
4. What was the effectiveness of using Computer-Assisted Translation tools on developing mechanic translation skills?

Significance of the study

The present study might be important as it may

- Develop learners' translation skills.
- Give instructors the opportunity to use modern technological in teaching translation.
- The present study may attract the designers of EFL textbook to the importance of involving CAT tools in EFL courses.

Aims of the study

The study aimed to

- Identifying the effectiveness of using CAT tools on developing translation skills of EFL learners. This objective was branched into the following:

- Identifying the effectiveness of using CAT tools on developing accuracy translation skills.
- Identifying the effectiveness of using CAT tools on developing pragmatic translation skills.
- Identifying the effectiveness of using CAT tools on developing lexical translation skills.
- Identifying the effectiveness of using CAT tools on developing mechanic translation skills.

Hypotheses of the study

The study hypothesized the following:

The present study tested the following main hypothesis: There was a statistically significant difference between the mean scores of the experimental group on the pre-post translation skills test.

This hypothesis is branched in the following sub-hypotheses:

- A) There was a statistically significant difference among the mean scores of the experimental group on the pre-post-test of accuracy skills in favor of post-testing.
- B) There was a statistically significant difference among the mean scores of the experimental group on the pre-post-test of lexical skills in favor of post-testing.
- C) There was a statistically significant difference among the mean scores of the experimental group on the pre-post-test of pragmatic skills in favor of post-testing.
- D) There was a statistically significant difference among the mean scores of the experimental group on the pre-post-test of mechanic skills in favor of post-testing.

Delimitations of the study

The study was delimited to the following:

- A Sample of EFL learners in a specialized institution of TEFL
- A period of a full semester for teaching the course.
- Some translation skills:
 - Accuracy
 - Lexical
 - Pragmatic
 - Mechanic skills
- Using a CAT tool (TRADOS which is a free web-based edition, designed to help users communicate with AI-based writing tools).

Design of the study

This study followed the one group quasi-experimental design with its pre-post-testing procedure.

Instruments and materials of the study

The researcher designed and used:

- A pre post-test of translation skills.
- An instructional unit based on using CAT tools to improve translation skills of EFL learners.

Methodology of the study

The study adopted a single-group pretest-posttest design. Initially, the experimental group underwent a pre-test through a translation skills assessment. Subsequently, the experimental group received instruction using the CAT tool, and following the instruction, they underwent a post-test.

Findings of the study

The “T” test formula was used to analyze the difference between means of scores of the study sample in the Pre and the Post-test. Results indicate that:

1. There was a statistically significant difference at (0.01) between participants' mean scores at accuracy translation skills test favoring the post-test.
2. There was a statistically significant difference at (0.01) between participants' mean scores at lexical translation skills test favoring the post-test.
3. There was a statistically significant difference at (0.01) between participants' mean scores at pragmatic translation skills test favoring the post-test.
4. There was a statistically significant difference at (0.01) between participants' mean scores at mechanic translation skills test favoring the post-test.

In conclusion, using CAT tool was effective for teaching translation to the EFL learners; in addition to:

Implications

The findings of this study have significant implications, particularly regarding the enhancement of translation skills and its potential impact on overall language proficiency. This is because language acquisition is a holistic process, and proficiency in translation can positively influence various other language-related skills, both analytical and communicative.

Furthermore, the results of this study underscore the importance of integrating CAT tools into translation training programs, especially considering the rapid technological advancements worldwide. This integration aligns with the evolving landscape of language education and the increasing relevance of technology in the field.

In conclusion, the success of this study can be attributed to a combination of various factors, including the use of well-structured and rigorously evaluated materials, the incorporation of integrative activities

and exercises, the adherence to a systematically sequenced interactive teaching method, and the utilization of well-adapted and precisely developed assessment tools.

Recommendations

In the light of the results of the study the following recommendations are considered:

1. Learners should be encouraged to review and refine their leverage Translation Memory (TM) entries regularly to ensure accuracy and relevance.
2. Learners should be taught how to use CAT tool features for quality assurance. This includes employing spelling and grammar checks, consistency checks, and style guides to enhance translation quality.
3. CAT tools often have advanced features that can significantly enhance productivity and quality. Learners should be encouraged to explore and master these features, such as concordance search, terminology extraction, and machine translation integration.
4. Cultivate a continuous learning mindset among translators. The field of translation technology is evolving, and staying open to learning new tools and techniques are essential for professional growth.
5. There must be a real shift from individual to collaborative learning as a means for building up learners' knowledge and providing learners with varied opportunities for interaction and negotiation of meaning.
6. The role of the instructor, in translation classes should be changed from a lecturer to a co-learner to promote and facilitate a learner-centered approach to learning in which learners become responsible for their own learning.
7. Learners should have the chance of self-evaluation by providing them with guidelines and basics of evaluation process to maximize the role

of the learners in the process of learning and minimize the effort that the instructor may do.

8. Translation activities should integrate both translation theories with translation practices.
9. Translation assessment should be objective and formative in a process of providing clear and reliable criteria.

Suggestions for further study

The following points are suggested for further research:

- 1) Examining the effectiveness of using CAT in teaching other courses of EFL to English majors.
- 2) Examining the effectiveness of using CAT in teaching English courses for beginners.
- 3) Investigate the effectiveness of CAT in developing social and communicative abilities of EFL learners.
- 4) Conducting a study to analyze the relation between translation proficiency and other language skills.
- 5) Conducting a study that investigates the relation of the acquisition of translation strategies and thinking types by identifying the effect of transfer.

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