

Evaluating Students' Self Efficacy Perception on Integrating CAT Tools in Educational Programs

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Abstract

Technology is an important factor in translation studies. The application of technology is enduring in the field of translation. Computer-Assisted Translation (CAT) tools are an important part of the translation practice. The current study aims to underpin translation students' understanding of CAT Tools incorporation. The study employed a quantitative approach for data collection. The data analysis revealed that while most participants had awareness of technology usage, only a small minority showed competence in CAT techniques for converting printed texts into electronic formatting.

Keywords: technology, computer-assisted translation (CAT), tools, participants

1. Introduction

The rapid growth of multilingual translation training schools worldwide has been a direct response to the increasing demand for English language instruction and acquisition. There is an increasing demand for individuals who possess the ability to facilitate communication not just between languages but also between cultures, as well as a diverse portfolio of expertise. Higher education institutions provide a wide range of programs and degrees, spanning from vocational to doctoral level. In line with its swift progress in recent years, Saudi Arabia has been diligent in expanding access to higher education for its population. It has founded several colleges, providing tuition-free education and other benefits that have attracted high school graduates to pursue higher education.

The vast majority of institutions have English teaching departments that aim to encompass the essential elements of English and provide them to students who require them in order to enhance their ability to participate in a fast-expanding society. The instruction and acquisition of English inevitably conform to the linguistic and cultural requirements and limitations of the environment, and English is typically taught and learnt as a non-native language, never as a secondary language. The curriculum often places less emphasis on certain English language components or pursues them for other objectives. For instance, teachers often use literature as a tool for language acquisition, disregarding the literary elements of texts as irrelevant to the learners' needs. However, while certain elements of English are downplayed, others are elevated to the point of becoming, in a few instances, autonomous fields of study, such as applied linguistics and translation.

The translation programs provided by Saudi universities, including Imam Mohamed ibn Saud University, have not consistently demonstrated their suitability in meeting the requirements of the market. Fatani (2009) noted that most companies and institutions, whether private or government, are well aware of the shortcomings of Saudi translators who have completed local translation and language programs. The studies conducted by Fatani (2009) and Abu-Ghararah (2017) that focus on translation in Saudi Arabia reveal a significant disparity between academic training and the demands of the Saudi translation industry. These researchers argue that students often lack sufficient training in several translation domains, including legal, banking, commercial, technical, and industrial applications. Academic researchers have noted that the demand for efficient translation services in Saudi Arabia has resulted in a corresponding need for equally efficient academic translation courses that can meet the demands of private enterprises, government agencies, the tourist and pilgrimage sector, and relief organizations. ElShafei, (2014) posits that a deficiency in students' translation work during their university studies, evident in low-quality final products due to insufficient language skills and inadequate training in translation competencies, can subsequently impact the quality of their preparation for translation offices. The responsibility of curriculum planners should encompass the task of "reducing the disparity between the requirements of the contemporary translator in the job market and the educational programs provided by training institutions, universities, and colleges." Abu-Ghararah (2017) argues that to assess translator training programs, it is necessary to clearly identify the translation industry's requirements. It is critical to investigate the disparity between student learning and training and the translation market's requirements. The prominent and pressing need for translators proficient in computer applications, particularly CAT tools, warrants particular attention. Furthermore, it is important to suggest potential solutions to address these challenges and enhance the quality of undergraduate translation courses.

2. Literature Review

Since the 1990s, universities in North America and Europe have recognized the importance of incorporating Computer-Assisted Translation (CAT) tools into their curricula for the teaching and training of translation students. In his 1999 publication, Kenny cited several translation scholars (e.g., Waltermann, 1994; Schaler, 1996) who strongly advocated for the incorporation of Computer-Assisted Translation (CAT) tools into the translation curriculum of universities. These scholars emphasized that universities have a responsibility to equip their students with the latest knowledge and skills necessary for the modern computerized multilingual professional environment. The proposal was to universally include translation technology throughout all stages of translation programs. While emphasizing integration as a solution to address the difficulties encountered by university-level translator training courses, these experts also saw it as the method to reconcile the conflicts between the conventional value system of translation programs and the growing technological advances of translation work. Furthermore, Kenny emphasized that universities, which have already integrated workbench-style systems into their translator training programs, should not limit their role to teaching students how to use a third-party system. Instead, new CAT tools should provide opportunities for exploring whole new research domains (Kenny, 1999).

In the first two decades of this century, technology became a necessity in translation, and, as Pym remarks, "virtually all translating is aided by computers" (Pym, 2013). In this context, one would anticipate the availability of CAT teaching in translation courses and the support of capable instructors and trainers who could effectively prepare their students for market demands. However, this was not the case at first (in the late nineties and the first decade of this century), as the early translators, who were expected to be skilled in the use of these tools, had no opportunity to learn them interactively in the classroom. Instead, they had to learn them by trial and error, without receiving instruction that combined theory and practice. According to (Esselink et al., 2024), the lack of available translators with computer or localization skills prevented companies from hiring them at that time.

Over the next twenty years, this underwent a significant transformation. During the 1990s, colleges in North America and Europe faced the task of offering CAT training, which prompted them to establish programs and develop precise course descriptions. Kenny (1990) discusses the incorporation of Computer-Assisted Translation (CAT) into translation programs at several Canadian and European colleges. He specifically presents documented programs from Carnegie Mellon University (CMU) and the Universitat Leipzig in the literature.

The use of CAT tools is a big feature in the practice of translation nowadays (Kornacki, 2018; Rodríguez-Castro, 2018; Sánchez-Castany, 2023; Sikora, 2014). CAT tools play a crucial role in translation processes and efforts almost everywhere (Picton et al., 2017; Zaretskaya et al., 2015). Translators extensively use them to enhance their productivity while maintaining high-quality translation services, and they have become indispensable in most organizations, offering major benefits such as increasing productivity, unifying terminology, and

minimizing translation costs (Jamoussi & Shallal, 2019; Youdale & Rothwell, 2022). Research on the design, concept, use, benefits, limitations, and user's perception of and attitude toward CAT tools is abundant in many parts of the world, but rare in the Arab world (Alanazi, 2019; Aldossary, 2023; Jamoussi & Shallal, 2019). Researchers from Saudi Arabia have examined how translators evaluate computer-assisted translation tools, the potential issues that could complicate their use (Alanazi, 2019), and the usability of these tools from the translators' perspective (Alotaibi, 2020, 2024). Recently, Al-Rumaih (2021) investigated "the current state of Computer-Aided Translation (CAT) tools integration into the translator-training programs of some universities in Saudi Arabia." Her research revealed that the universities under study have not yet effectively integrated CAT tools into their translator-training programs. This is due to the fact that not all universities offer CAT courses, and those that do often lack certain elements that could facilitate their integration. Furthermore, a significant proportion of participants do not utilize CAT tools for their translation tasks, and more than half do not utilize them in other translation courses (Al Rumaih, 2021). This research explores the problems and possibilities of integrating CAT tools in Saudi universities' translation training programs. It postulates that effective integration of those tools in translation training programs can effectively be achieved by providing content that combines, in equal degree, knowledge of and skills in technology and tools universally required by the translation offices and, at the same time, the knowledge and skills that a translator needs to function as a professional and that have been provided by the courses in the theory and practice of translation in all translation programs. This idea is seen as vital since it clearly outlines the skills that students must possess. This study maintains that an imbalance in the curriculum in the sense of adding more weight to one set of skills and less to the other will result in inadequate training, which produces translators who are either unequipped for being employed or whose unprofessional work brings dire consequences to the business.

The following question, which is centered on the incorporation of CAT technologies into translation programs at institutions in Saudi Arabia, will be addressed in this study:

What is the students' efficacy of CAT tools integration in translation program?

3. Methodology

Research designs include the strategic and specific procedures for conducting research. These methodologies might range from general assumptions to rigorous approaches for acquiring and assessing data. One of the most challenging issues to solve is selecting an appropriate research methodology to investigate translation-related phenomena. Creswell (2011) asserts that design consists of three fundamental components integrated together. These approaches focus on different strategies for conducting research and understanding the core of knowledge. In order to collect data for the current study, a quantitative research approach was utilized in the research. We collected the data from the students using a questionnaire.

4. Demographic Profile of the Participants

The first section is based on the demographic profile of the students which is very important for primary data level research. The study collected the data from three universities, PNU, Imam University, and KSU. The study collected the data from 434 students from these universities. From overall sample, 28 percent students belong to PNU (n=122), 49 percent belong to Imam University (n=212) while 23 percent belongs to KSU (n=100). The study has collected the data both from male and female students. From overall sample, 71 percent students are female (n=308) while 29 percent are male students (126). The study has included three categories of age in the questionnaire, 20-22 years, 23-25 years, and 26 and above. The distribution of this variable shows that 31 percent students have age between 20-22 years (n=134), while 55 percent students have age between 23-25 years (n=240). 14 percent students have their age 26 years and above (n=60). The distribution of the level variable shows that most of the students (n=278, 64%) have level 10 while 22 percent students (n=94) have level 8 and 14 percent (n=62) have level 8.

Table 1. Demographic Characteristics of the Participants

Demographic Characteristics of the Participants			
Distribution of Sample among Universities (%)	Universities	Frequency	%
	PNU	122	28.1
	Imam University	212	48.8
	KSU	100	23.0
	Total	434	100.0
Gender of respondents (%)	Gender		
	Male	126	29.0
	Female	308	71.0
	Total	434	100.0
Age of the respondent (%)	Age		
	20-22	134	30.9
	23-25	240	55.3
	26 and above	60	13.8
	Total	434	100.0
Level (%)	Level		
	Level 8	94	21.7
	Level 9	62	14.3
	Level 10	278	64.0
	Total	434	100.0

5. Findings

The emphasis of the second part of the questionnaire was on the use of technology and CAT tools in translation. The section contained nine items. The students had to indicate one of the five options against each item of the questionnaire: strongly disagree, disagree, neutral, agree, and strongly agree. All the questions are discussed below under separate headings.

6. Technology and CAT Tools Usage

Around 90% of those participating possess knowledge of technology's crucial significance, according to the survey's findings, while the remaining pupils are unaware of its purpose. Although 22% of students are proficient in scanning and optical character recognition, 38% of students are unable to do so. Roughly half of the class struggles to use speech recognition to transform written text into an electronic format. Among the total sample, 50% of pupils are unable to distinguish between the various corpora. Even though just 24% of students have no trouble using corpus analysis tools, 48% of students have no trouble using them at all. While 46% of students don't know how terminology management systems function, over 50% do. Roughly half of the class doesn't understand how translation memory function. Translation memories are known by about 40% of students. When asked to rate their own needs in relation to CAT tools, the student gives conflicting answers. Approximately half of the students have the freedom to select the CAT tools that best suit their needs. The limits of CAT tools are known by over half of the pupils.

Table 2. Technology and CAT Tools usage

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
I acknowledge the crucial role that technology plays in the field of translation (%)	0.5	1.4	8.3	29.0	60.8	100.0
Utilizing scanning and OCR, I can transform a hard copy text into an electronic format (%)	10.1	28.6	38.2	10.1	12.9	100.0
I can transform a hard copy text into an electronic format VRS technology. (%)	16.6	34.6	29.5	13.4	6.0	100.0
I can distinguish many categories of corpora (%)	25.8	23.0	25.3	18.4	7.4	100.0
I have proficiency in programming corpus analysis tools (%)	24.9	24.0	26.7	13.4	11.1	100.0
I have knowledge of the functioning of Terminology Management Systems (%)	16.1	30.4	21.2	19.4	12.9	100.0
I am familiar with the mechanics of translation memories (%)	3.7	47.0	9.2	18.0	22.1	100.0
I can choose the CAT tools that work best for me (%)	13.8	27.2	30.9	13.4	14.7	100.0
I know the limits of CAT tools (%)	6.5	22.6	16.6	29.0	25.3	100.0

7. Discussion

According to the findings of the data analysis, the majority of the participants were aware of the usage of technology. On the other hand, only a small percentage of the participants indicated that they were able to transform a printed text into an electronic form by utilizing CAT technologies. There appears to be a discrepancy between the theoretical conceptions and the instructional formulations. This leads to the underutilization of translators, outdated theoretical curricula, a primary focus on theoretical concepts for instruction, and a deficiency in essential practical resources, technological tools, and skilled translation specialists. AlShaye and BinSultan (2024) suggest designing these classes to cover topics like the latest translation technology, sector-specific terminology, project management fundamentals, and focused communication skills development. Students who are studying translation will benefit from the use of practical training to improve their knowledge and comprehension of contemporary technology, particularly with regard to computer-assisted translation (CAT) tools. This will result in positive outcomes for students studying translation, both in terms of theory and practice.

A further finding from the study of the data was that the students did not adequately grasp the practical implications of the translations. Students who have not had sufficient experience with digital equipment and technology tend to have less confidence, particularly when it comes to translation. The use of computer translation ought to be given priority. It has been suggested by Baker (2018), Jiménez-Crespo (2013), and Liu et al. (2020) that one should participate in a translation training internship. In terms of the identification of the various forms of corpora and the utilization of corpus analysis tools, the data analysis revealed that the majority of the participants demonstrated their incompetence in this regard. This implies that the students do not have a sufficient understanding of their curriculums and the instructors who are teaching them. This is tied to the difficulties that arise while attempting to teach and train students in an efficient manner so that they can comprehend the appropriate utilization of CAT technologies. Instead of focusing on the significance of practice in developing translator competence, a number of research have focused on the pedagogical shortcomings that are present in translation training. These shortcomings include teaching methods, evaluation techniques, and curriculum design. Gary (2021), Massey et al. (2019), and Salamah (2021) are some of the studies that have addressed these issues.

In addition, the incorporation of CAT technologies into the courses is essential in order to eliminate any shortcomings in comprehension and to provide a solid foundation for educators. Throughout the corpus and the instruments for analyzing the corpus, the majority of the students displayed a passive attitude, displaying a certain degree of self-doubt and actively avoiding involvement (Han, 2020). Based on the analysis findings, it was determined that the students' lack of comprehension and use of CAT tools was a significant contributor to the

predicted conduct. The negative perceptions of the students quickly faded after they were exposed to activities that involved experiential learning. Afterwards, participants were told to engage in a collective discourse in order to communicate their observations (H. Alotaibi & Salamah, 2023). Salamah, 2023. Participants were instructed to experiment with a variety of online corpora.

New translation technology, domain-specific terminology, project management concepts, and targeted communication abilities may be included in such courses. Recent studies (H. M. Alotaibi, 2024; Robert et al., 2024; Tursunovich, 2022; Urlaub & Dessein, 2022) have examined technology, but more research is needed to determine how post-graduate translation process training programs affect TC and their capacity to comply with translation market demands (Albir et al., 2020). Similarly, the participants demonstrated their incompetence in translation memory work and chose CAT tools for the translation. There appears to be another gap in theory and practice. Instructors and policymakers should choose and implement a curriculum that complies with the theoretical and pedagogical constructs of the translation and can meet the market's needs.

Finally, pertaining to the implementation of technology and CAT tools, participants showed their awareness of the restraints related with CAT tools. This finding offers weak indication that learners have faced problems in obtaining familiarity of CAT tools, either owing to an imperfect understanding of the theory or inadequate preparation presented by the institution. All through the course, learners must promote the capability to acquaint their scenarios concerning the functionalities of CAT instruments. Eventually, learners face challenges in achieving competency in CAT tools due to insufficient consideration of the important perceptions or insufficient preparation. This requires a thorough consideration of the various means by which individuals and technology interaction, as well as the inconsistencies in their data processing capacities.

8. Conclusion

The outcomes of the data analysis showed that while most participants had acquaintance of technology procedure, only a small section presented their competency in utilizing computer-assisted translation (CAT) tools to translate printed texts into electronic formats. The discrepancy between real-life circumstances and the job market leads to translators who fail to accomplish their determined capabilities, obsolete theoretical preparation, and insufficiency of applied tools.

Students' lack of applied knowledge of digital skills and its mechanisms leads to a deterioration of their confidence in the arena of translation. In order to cope up with this problem, it is vital to give significance to computer translation training and instigate internships in translation training. A noteworthy percentage of participants revealed an insufficiency in their capacity to recognize various classifications of corpora and effectually practice corpus analysis tools. The crucial basis of their weary performance was their limited understanding and application of CAT processes. The participants approved a deficiency in their capability to apprehend translation lexicon, recognize the process of translation memories, and indicate appropriate CAT procedures. There is a resilient demand for proficient instruction courses that facilitates translators with current industry requirements. Instructors and policymakers should indicate and contrivance a curriculum that is in line with the essential and operational concepts behind translation in order to fulfill the necessities of the professional market.

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