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**A THREAT OR A TOOL? A  
PHENOMENOLOGICAL STUDY BASED ON  
STUDENT EXPERIENCES IN COMPUTER-  
ASSISTED TRANSLATION (CAT) COURSES**

**ABSTRACT**

Rapid technological developments have led to significant transformations in the translation field. The development of machine translation (MT) and computer-assisted translation (CAT) technologies has had a direct impact on both the practice of translation and on the training of translators. Some translators and students see these technologies as a threat to their profession, while others view them as tools that enhance their professional practice or help them learn translation skills. This research aims to elaborate on how undergraduate students perceive and expect CAT tools to be used in translator training, as well as how they personally use CAT in their practice of translation. The research design was based on phenomenology and qualitative methodology methods. Data were collected through a qualitative survey with six open-ended questions submitted to CAT students through Google Forms. Data were analyzed through thematic analysis. The results of this research showed that students generally viewed CAT tools as complex, difficult to use, and threatening to their professional identity before completing the CAT course. However, their views about CAT tools changed dramatically after their practical experiences during the CAT course. Additionally, students reported that they see CAT tools as systems that help them to complete translations faster, have consistent terminology, and create higher quality translations. More importantly, the CAT course helped to promote students' technical skills and reinforce their understanding of their professional role, ethical issues, and confidence in their translation abilities.

**Keywords:** Computer-assisted translation (CAT), machine translation (MT), students' perceptions, translator training, translation technologies.

**TEHDİT Mİ ARAÇ MI? BİLGİSAYAR  
DESTEKLİ ÇEVİRİ (BDÇ) DERSLERİNDE  
ÖĞRENCİ DENEYİMLERİNE DAYALI  
FENOMENOLOJİK BİR ARAŞTIRMA**

**ÖZET**

Günümüzde teknolojiye yaşanan hızlı gelişmeler, çeviri alanında da önemli dönüşümlere yol açmaktadır. Özellikle makine çevirisi (MÇ) ve bilgisayar destekli çeviri (BDÇ) araçlarının yaygınlaşması, çeviri süreçlerini ve çevirmen eğitimi doğrudan etkilemektedir. Bu teknolojiler kimi zaman çevirmenler ve öğrenciler için bir tehdit olarak algılanırken, kimi zaman da mesleki süreçleri destekleyen araçlar olarak değerlendirilmektedir. Bu çalışmanın amacı, bilgisayar destekli çeviri (BDÇ) dersi alan lisans düzeyindeki çeviri öğrencilerinin BDÇ'ye ilişkin algılarını, beklentilerini ve ders sürecinde edindikleri deneyimleri incelemektir. Araştırma, nitel araştırma yöntemlerinden biri olan fenomenolojik araştırma deseni çerçevesinde yürütülmüştür. Veriler, BDÇ dersini alan öğrencilere Google Forms aracılığıyla uygulanan ve altı açık uçlu sorudan oluşan nitel anket yoluyla toplanmıştır. Elde edilen veriler tematik analiz yöntemiyle çözümlenmiştir. Araştırma bulguları, öğrencilerin BDÇ dersi öncesinde BDÇ araçlarını genellikle karmaşık, zorlayıcı ve mesleki açıdan tehdit edici olarak algıladıklarını; ancak ders sürecindeki uygulamalı deneyimler sonucunda bu algının belirgin biçimde değiştiğini göstermiştir. Öğrenciler, BDÇ araçlarını çeviri sürecini hızlandıran, terminolojik tutarlılık sağlayan ve kaliteyi artıran destekleyici sistemler olarak değerlendirmiştir. Sonuç olarak, bu çalışma, BDÇ dersinin yalnızca teknik beceri kazandırmakla kalmayıp öğrencilerin mesleki farkındalıklarını, etik sorgulamalarını ve çeviri özgüvenlerini de güçlendirdiğini ortaya koymaktadır.

**Anahtar kelimeler:** Bilgisayar Destekli Çeviri (BDÇ), Makine Çevirisi (MÇ), öğrenci algıları, çevirmen eğitimi, çeviri teknolojileri.

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## Introduction

Translation technology, including machine translation (MT) and computer-assisted translation (CAT), has continued to grow and evolve owing to rapid technological advancement. Technological advancements have significantly impacted translation and translator training. Translation technology is no longer considered as something that provides technical support but rather as an essential component of the overall translation process (Olohan, 2011; Abu Dayyeh, 2020). Furthermore, the development of machine translation technologies has primarily aimed at improving translation quality (Dalmış & Yıldız, 2025).

There are two sides to this discussion: one side appreciates the speed, consistency, and efficiency these technologies offer, while the other questions their potential negative impact on translation quality, creativity and translator identity. Some studies report that CAT tools lead translators to a mechanical production process and may restrict their creative ability to produce work (LeBlanc, 2013). In contrast, it has also been argued that CAT technology has changed the way translators think and approach the task of translation by changing their cognitive processes and providing a new way of thinking about translation that incorporates human-machine collaboration.

CAT courses in translator training programs are designed to help students with both the technical aspects of CAT tools and to develop a critical and questioning attitude toward their professional use. Students gain experiences while participating in CAT courses that may affect their views on translating as a career, the ethics of translating, and their confidence in translating professionally. Therefore, it is important to examine students' experiences and understanding of how CAT tools are used in a learning environment to determine the quality of translation education.

This study aimed to reveal the experiences and perceptions of undergraduate translation students taking a CAT course regarding CAT tools and how they interpret these experiences. This study seeks to answer the following research question:

1. What are students' perceptions and expectations regarding CAT tools before starting the CAT course?
2. How has the CAT course process affected students' perceptions of CAT tools?
3. How do students evaluate CAT in terms of the translation profession?

This study begins with a comprehensive literature review focusing on MT, CAT, and technology used for teaching translation. The methodology section describes the method used to conduct the research, the sample of respondents, the instrument used to collect data, and how the data were analyzed. The results of the thematic analysis are then presented in the following section. Finally, the conclusions section presents the conclusions drawn from this research and suggests future areas for study in translator training.

## Literature Review

Although MT and CAT are often considered together in the literature, they are not the same; rather they are two different processes that operate differently and are not necessarily interchangeable. MT is an automated translation process which means that the translation process itself is automated. CAT tools are instead focused on human centered processes with the help of

technology. CAT tools are defined as “any type of computerized tool that translators use to help them conduct their jobs” (Bowker, 2002, as cited in Alotaibi, 2020, p. 1), and CAT tools refer to “translation software packages that are designed primarily as an aid for the human translator in the production of translations” (European Association for Machine Translation [EAMT], n.d.). They include core functions such as translation memory, terminology management, and project management. On the other hand, MT “refers to computerized systems responsible for the production of translations with or without human assistance” (Hutchins, 1995, p. 431). Thus, the significant difference between MT and CAT is the human role in the process: MT replaces the human translator in the act of translation, whereas CAT tools support the human translator.

As Alotaibi (2020, p. 2) states, “unlike machine translation systems, in CAT, the translator is in charge of the translation process, while the use of these tools enhances productivity by saving time and effort.” Therefore, considering the functional distinction between MT and CAT tools is crucial when evaluating translation technologies for educational and professional contexts is crucial.

The speed, consistency, and efficiency advantages offered by translation technologies have led to their widespread use in translation. Translation technologies have increasingly become an integral part of translator training curricula in Turkey. As Şahin suggests, the use of technology in translation and interpretation studies, as well as in CAT courses, is becoming more frequent in Turkish universities, reflecting the importance of developing technological skills among translators (Şahin, 2013; Şahin, 2024). Moreover, CAT software is perceived as an integral part of translators’ jobs and training.

According to Olohan (2011), translation technologies are not merely supportive tools but actively shape translators’ workflows and professional practices. In an educational context, Akgün and Mercan (2023) report that lecturers perceive CAT tools as valuable for developing students’ translation competence, technological awareness, and professional preparedness. However, as Çetiner (2018, p. 154) states, “some students may become introverted during technology classes resulting from his/her computer illiteracy, or they may not have enough motivation to benefit from these tools.” Therefore, instructors’ role is more than just teaching about CAT tools; they need to establish an inclusive and supportive social and academic environment that is sensitive to the needs of the students. Kiraly (2000) states that the instructor, as a facilitator, can more successfully promote student learning than if he/she were simply passing on facts. Beyond the immediate classroom dynamic, the affective dimension of technology-supported learning is also evident in the broader language-education literature: generative AI tools have been shown to influence learners’ anxiety, motivation, and engagement, helping to sustain motivation even when learners encounter usability or time-related constraints (Genç, 2025)

Within this pedagogical framework, the emphasis on CAT tools extends beyond classroom practices and directly reflects the expectations of the professional translation industry. As Xu and Wang (2011) report, “translators today are expected to be able to use CAT tools to survive in the translation market” (p. 62). This view highlights the growing pressure on translators and translation students to acquire technological competence to remain competitive in the industry.

Kenny (2020) argues that translation students should learn not only how to use translation technologies but also how to critically evaluate them, as technological competence supports employability and lifelong learning.

Moreover, Canım-Alkan (2013) argues that technology education in translator training should prioritize the development of transferable professional skills such as problem-solving, group work or teamwork, autonomous learning, and critical thinking. This perspective supports the present study, in which students reported that these tools enhanced their technological competence, professional confidence, and readiness for the translation industry.

In the same way, Balkul (2016) expressed that translation technologies are no longer an optional tool in translator training, they have become an essential component of what students need to know in order to meet the needs of the industry. Therefore, it is important for all educators to work together with their respective industries to ensure that translators receive the best possible education in translation technologies so that they can successfully enter into the workforce.

The findings of another study conducted by Venkatesan (2023) indicate that translation students typically lack confidence in their understanding of technology for translation purposes and tend to refrain from using MT, even though they acknowledge its possible benefits. According to him, this phenomenon might be due to the lack of proper instruction that combines technology with the translation process. The views expressed above echo those presented in the current study, since it is shown that initially the students were hesitant using CAT software, but their attitude changed during the class.

Although previous research has analyzed the use of translation technologies from an efficiency, productivity, and tool perspective, much less research has been conducted from a learner-focused viewpoint regarding students' cognitive and attitudinal engagement with CAT tools in training environments. From a pedagogical perspective, Çetiner (2018) explains that little empirical work has been conducted on students' attitudes towards translation technologies. To fill this gap, this study explores the perceptions and experiences of third-year undergraduate translation students in their third years who used CAT tools (i.e., translation memory, terminology management, MT, quality assurance, and corpus tools) in a CAT course. The study was designed using a phenomenological approach that considers how the initial anxiety experienced by students, resulting in their seeing CAT tools as threatening, was reshaped through the course, and how their attitude changed towards CAT tools post-course.

## **Method**

### **Research Design**

This study was conducted within the framework of a phenomenological research design, a qualitative research method that explores how individuals experience and make sense of phenomena (Merriam, 2009). This study addresses the experiences of undergraduate translation students regarding the use of CAT tools in translator training.

### **Participants**

The participants in the study were 17 undergraduate students who had taken the CAT course at the Department of English Translation and Interpretation of Ankara Yıldırım Beyazıt University. They learned how to use CAT tools, such as translation memory, terminology management, quality assurance, and related translation technology components. Purposive sampling was used for this study. In line with the principle of data saturation commonly used in qualitative research, data collection was terminated when similar themes began repeating.

## Data Collection Tool

A qualitative survey consisting of six open-ended questions was used as the data collection tool in this study. The survey was administered online using the Google Forms platform. Open-ended questions were designed to allow participants to describe their experiences, perceptions, and evaluations of CAT tools in detail in their own words. The questions aimed to reveal students' perceptions of CAT tools before starting the course, their experiences during the course, how they evaluated them in the context of the translation profession, their ethical awareness, their perceptions of field-based limitations and usefulness, and how their use affects their translation confidence, including which tools they find most useful. To ensure rich and authentic qualitative data, the survey questions (Appendix 1) were administered in Turkish, enabling participants to articulate their experiences and perceptions without linguistic constraints.

## Data Collection Process

The data for this study were collected at the end of the semester, as scheduled. Ethics approval was obtained from Social and Humanities Sciences Ethics Committee of Ankara Yıldırım Beyazıt University (AYBU) (Approval No. 01/06, Date: January 19, 2026) before commencing data collection. The questionnaire was administered via Google Forms. It was explained that participation in this research project was voluntary, that not participating would not incur any sanctions either academically or administratively, and that the collected data would be used only for scientific purposes.

## Data Analysis

The data obtained from the research were analyzed using MAXQDA, a thematic analysis software. During the analysis, the participants' responses were read repeatedly to become familiar with the data. The themes created were reviewed again in line with the research questions and were supported by direct quotations from the participants. During this process, common patterns and differing views reflecting students' experiences with CAT tools and translation technologies were identified.

## Findings

A code cloud was created to reveal the general distribution of codes generated from the qualitative data obtained within the scope of the study and the meaning clusters that stood out in the participants' experiences (Figure 1).

When examining the generated code cloud, the most prominent codes reflecting the participants' viewpoints include “recognizing the supportive role of the tools”, “perceiving the tools as supportive and supplementary”, “perception of efficiency and time saving”, “support and convenience provided by the tools”, and “increased self-confidence”. This finding indicates that with the CAT course, the perceptions of the students characterized by threat and concern were transformed into a more functional and positive outlook according to the experience.

Another cluster that stands out in the code cloud includes codes such as “reshaping initial perceptions,” “conceptual transformation,” and “recognizing the balance between the tool and the human.” The frequent emphasis on such codes suggests that students are moving away from equating CAT tools with solely MT alone and beginning to view them as supportive technologies working under the translator's control. At a phenomenological level, this finding clearly reflects the perception transformation, which is the main objective of this study.

The presence of codes such as “dual perception: threat + support,” “fear of lack of professional security,” “questioning of professional identity,” and “the reality of post-editing” in the code cloud indicates that some of the students’ concerns about the future of the profession remain, even as they develop a more positive awareness of CAT tools. Specifically, the emphasis on the phenomenon of post-editing suggests that students develop a critical awareness of the visibility of human effort in translation work, the role of the translator, and their perceptions of professional value.

The emergence of distinct codes such as “ethical ambiguity,” “ethical concerns related to data security,” and “being solely an editor” within the ethical dimension indicates that students tend to develop a critical approach instead of technical capabilities while using CAT tools regarding professional responsibilities and ethical boundaries. This shows that the CAT course is a learning process aimed not only at improving tool utilization but also at developing ethical awareness among teachers.



**Figure 1.** Code Cloud Obtained from Analysis - Most Frequently Repeated Codes by Participants - Conceptual Representation

In addition, the frequency of codes including “adaptation to the technology,” “technology adaptation awareness,” and “long-term professional benefit perception” shows that the students regard CAT tools as an inevitable requirement in today’s translation industry and that these tools are essential for sustainability. Overall, the findings derived from the code cloud suggest that CAT courses simultaneously trigger multiple dimensions, such as perceptual transformation, professional awareness, increased self-confidence and ethical questioning. These general tendencies are supported by the findings of the thematic analysis, presented in detail in the subsequent sections, and thus enable a holistic discussion of the transformative effect of CAT tools on students’ professional identity construction.

As a result of the analysis based on the Hierarchical Code-Sub Code Model, the seven fundamental themes have been identified, reflecting students’ perceptions, experiences, and views regarding CAT course and CAT tools (Figure 2).

#### 1. The Theme of Perceptions and Expectations Before Starting the CAT Course (f=31)

This theme covers students’ preliminary perceptions, expectations, and concerns about CAT tools before the start of the course. Findings within the scope of this theme indicate that students perceive CAT tools as challenging, complicated, and requiring technical knowledge. In addition, various concerns, such as the possibility that CAT tools may pose a threat to the translation

profession, weaken the role of human translators, and create professional ambiguity, were evident in the students' preliminary perceptions. These findings reveal that students begin taking CAT courses with caution and concerns.

## 2. The Theme of Learning and Awareness Experienced during the Course (f=50)

This theme covers the students' introduction to CAT tools, their learning how to use them, and the awareness they developed during the course. Students reported that as they worked with translation memory, terminology management, MT integration, and quality assurance tools, they developed a clear understanding of the functionality and usage logic of CAT tools. The codes under this theme show that students recognize the relationship between theoretical knowledge and practical experience and begin to understand that CAT tools are supportive technologies working under the supervision of the translator rather than systems producing purely automated translations.

## 3. Perception Transformation –From Threat to Familiarity (f=64)

This theme, which had one of the highest frequencies, clearly reflected the transformation observed in students' perceptions of CAT tools. The findings obtained within the scope of the theme indicate that students initially perceive CAT tools as a threat but later reframe them as supportive, complementary, and functional tools. Based on student feedback, the emphasis on efficiency, time-saving, and consistency reflected an experience-based shift in the student experience. This view shows that CAT courses lower students' fear of and resistance to technology, thereby enabling them to develop a more balanced and conscious approach to technology use.

## 4. The Theme of The Position of CAT Tools in the Translation Profession (f=56)

This theme covers the position of CAT tools within the translation profession and views on professional identity. Students assume CAT tools to be supportive tools in their decision-making processes rather than systems that replace translators. However, the existence of codes such as "the reality of post-editing," "questioning the professional identity," and "invisibilization of labor" suggests that students develop a critical awareness of the future of the translation profession. These findings indicate that students view CAT tools as structures that incorporate both opportunities and risks in the profession.

## 5. The Theme of Ethical Awareness and Hesitation (f=28)

This theme reflects students' ethical questioning and hesitation in using CAT tools. Students indicated that they felt ethical ambiguity regarding issues such as MT use, data security, and ownership of the translation. The findings obtained within the scope of the theme indicate that the CAT course improves not only technical skills but also ethical consciousness and professional responsibility. This shows that CAT training constitutes a learning environment for students that encourages candidate translators to think about their profession and ethics.

## 6. The Theme of the Effect of CAT Tools on the Translation Self-Confidence (f=53)

This theme focused on the effect of learning CAT tools on students' translation self-confidence. Most students indicated that they felt more equipped, competent, and ready for professional life after learning how to use CAT tools. Specifically, factors such as better control over translation progress, error detection, and ensuring consistency positively affected

students' self-confidence. These findings represent important factors through which CAT tools empower students' self-efficacy perception.

#### 7. Tool-Based Experience – Challenges and Benefit Perception Theme (f=42)

This theme covered the challenges experienced by students regarding specific CAT tools and their perceptions of the benefits of these tools. Students stated that terminology management and certain technical interfaces were challenging at the beginning, but that these tools would be beneficial for the profession in the long term. The findings within this theme indicate that students consider the challenges experienced during the learning process to be temporary and view them as natural components of professional development.

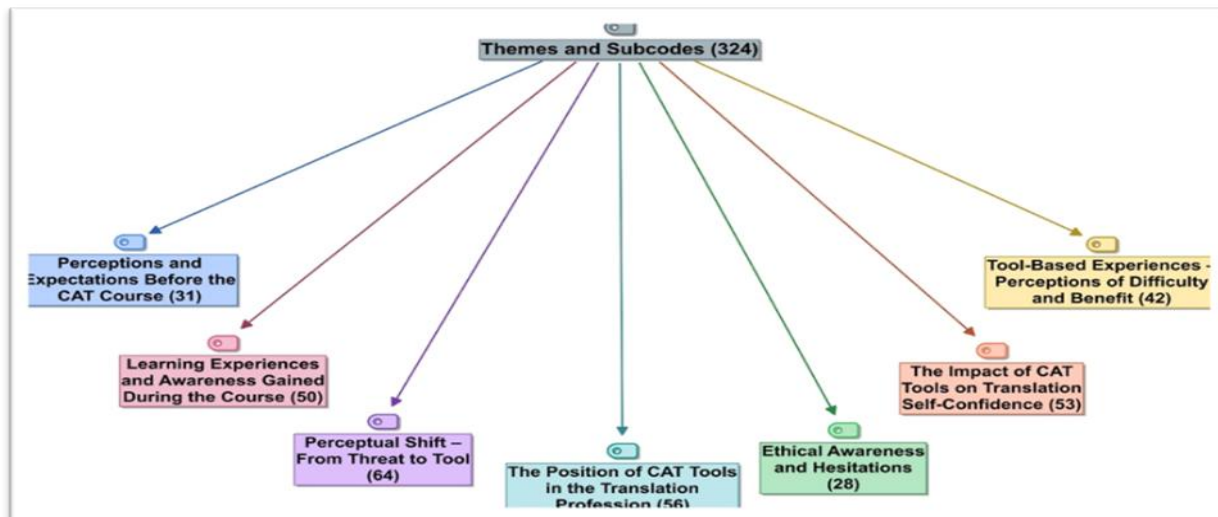


Figure 2. Hierarchical Code-Subcode Model - Themes Identified from Open-ended Questionnaire

#### The Theme of Perceptions and Expectations Before Starting the CAT Course (f=31)

This theme had a total code frequency of 31, indicating that students began the course with views characterized by a lack of information, concerns, and uncertainty (Figure 3). This suggests that students perceive CAT courses not only as new courses but also as a learning environment that incorporates questions about their professional future.

The sub-code with the highest frequency within the scope of the theme was “lack of information” (f=9). Starting the course with a lack of information about CAT tools caused students to perceive these tools as complicated and highly technical. This finding indicates that students evaluate CAT tools based on superficial information or general assumptions about MT and are unable to develop a clear understanding of the functionality of these tools.

Subsequent subcodes “Concerns and uncertainty” (f=7) and “Perception of challenge” (f=6) indicate that emotional reactions of students to CAT tools are prominent. Students said that the course would be difficult, exceed their technical level, and that they would experience difficulties during the learning process. This indicates that technology-based courses may trigger performance concerns among students and create emotional obstacles at the beginning of the learning process.

The subcodes “Awareness of the benefits of using the tools” (f=4) and “Having knowledge” (f=3) in the theme indicate that some students, albeit in limited numbers, held a more cautious view regarding the potential benefits of CAT tools. These students view CAT tools as potentially necessary for professional development and engage in the course with a more open and reflective approach than their peers. Sub-codes “Threat perception (preliminary assumption)” (f=1) and

“Fear of lack of professional security” ( $f=1$ ) reveal that some students have concerns about the possibility that CAT tools may pose a threat and weaken the role of human translators. Although these codes are represented by a limited number of statements, it can be argued that such concerns regarding one’s professional future are an important component of pre-course perceptions. Overall, the findings of this theme reveal that students start the CAT course primarily with feelings of lack of information, concerns, and uncertainty and perceive CAT tools as challenging and potentially threatening technologies before using them. Within this context, Theme 1 is critical within the holistic structure of the study, as it represents the starting point of students’ perception transformation regarding the use of CAT tools.

These results corroborate those of Çetiner (2018), who found that students can experience anxiety and a lack of motivation when studying translation technologies due to their limited computer knowledge. Similarly, Venkatesan (2023) highlighted that many students show low levels of self-confidence regarding their knowledge of translation technologies before they receive any kind of education. In contrast to previous research, the current study shows that students’ worries revolve not only around technical issues but also around career concerns.

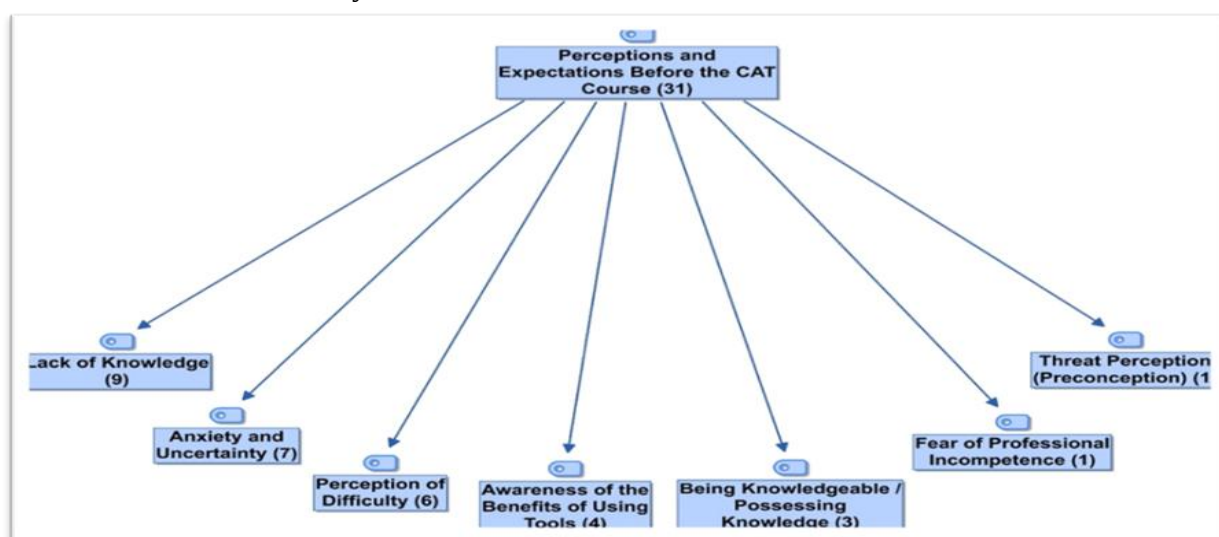


Figure 3. Hierarchical Code-Subcode Model-Pre-CAT Course Perceptions and Expectations Theme Distribution of Subcodes

### The Theme of Learning and Awareness Experienced during the Course ( $f=50$ )

This theme, analyzed under the Hierarchical Code-Sub Code Model, covers students’ learning experience and the awareness gained from these experiences through direct interaction with CAT tools during the course. This theme, with a total code frequency of 50, indicates that students’ perceptions of CAT tools are shaped by practical experience rather than theoretical information (Figure 4).

The sub-code with the highest frequency within the scope of the theme was “Recognizing the ‘supportive role’ of the tools” ( $f=18$ ). As students began to use CAT tools during the course, they came to realize that these tools do not replace the translator but rather support and facilitate the translation process and contribute to the decision-making process of the translator. This finding indicates that students’ initial threat-based perceptions of CAT tools were reshaped by their experience.

The subsequent sub-code “Process of Introduction of the Tools and Learning” ( $f=15$ ) revealed that students recognized the CAT tools step by step in the course and developed their

skills during the process. As students experience different components, such as translation memory, terminology management, and MT integration, they indicate that these systems, which were complicated at the beginning, have become easier to understand and manage.

The sub-code “Technology adaptation awareness” (f=12) in the theme demonstrates that students view the learning process of CAT tools not only as a part of the course, but also as an actual requirement of the translation profession. Realizing that adapting to technology is inevitable for professional sustainability reflects the professional awareness fostered by the CAT course in the teachers.

The sub-code “Conceptual transformation” (f=4), which has a lower frequency, indicates that students developed a deeper understanding of the relationship between CAT tools and MT., stating that CAT tools are supportive technologies operating under the supervision of a translator, as opposed to automated translation systems. This finding shows that students developed a more conscious perception of technology at the conceptual level than before.

The sub-code “Understanding the difference of CAT  $\neq$  MT” (f=1), which appears at a foundational level, indicates one of the basic conceptual distinctions of the study, even though they are represented by a limited number of statements.

These thematic findings demonstrate that CAT tools trigger experience-based learning, technological awareness, and cognitive restructuring in students. Learning CAT tools through in-person instruction reduces initial uncertainty and concerns and paves the way for understanding CAT tools as supportive systems under the translator's control. In this respect, Theme 2 forms the basis for the perceptual transformation and professional positioning observed in the subsequent themes.

The knowledge and awareness gained through this course support Şahin's (2013) claim regarding the importance of practical training for translator development. Additionally, these results are consistent with Kenny's (2020) views, according to whom technology training is important in allowing students to think critically about technology rather than just knowing how to use it. This study adds to the existing literature by illustrating the importance of practical applications in understanding concepts such as CAT and MT.

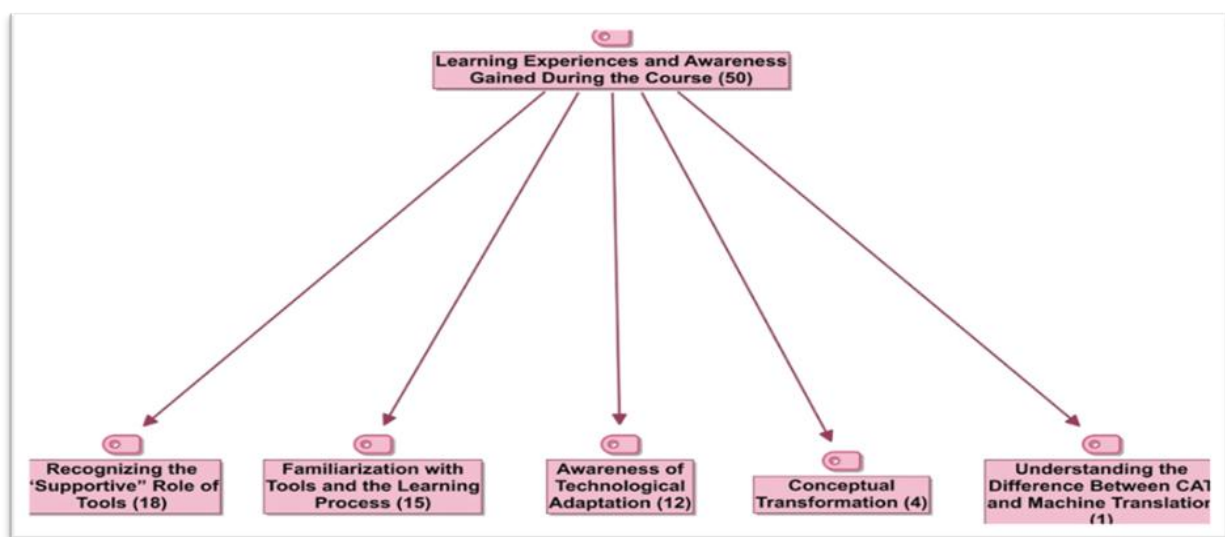


Figure 4. Hierarchical Code-Subcode Model-Learning and Awareness Theme Experienced During the Course-Distribution

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**Perception Transformation –From Threat to Familiarity (f=64)**

This theme shows that the initial perceptions of students regarding CAT tools, such as threats, uncertainty, and professional concerns, evolved into a tool-based, functional, and supportive understanding following the course and practical experiences. This theme, with a total code frequency of 64, was one of the most prominent in the study and clearly illustrated how students reconceptualized CAT (Figure 5).

The sub-code with the highest frequency within the scope of the theme was “Perception of efficiency and time-saving” (f=14). Students stated that CAT tools shorten translation time, particularly for repetitive texts, terminology management, and large-scale translation projects, and make workflows more organized and efficient. This finding indicates that the perception of CAT tools as a threat is replaced by a positive view shaped by concrete performance improvement.

The subsequent sub-code “Facilitating the workload” (f=12) reflects the perception that CAT tools reduce the cognitive and physical load of translation. Students reported that translation memories and automated recommendation systems reduce repetitive decision-making processes and enable translators to focus on the more qualitative aspects of texts.

The sub-code “Quality improvement and reliability” (f=12) revealed that students viewed CAT tools as systems that speed up the translation process and improve translation quality. Several factors, such as consistency, terminological accuracy, and concordance with previous translations, have strengthened the perception that CAT tools ensure quality.

The sub-code “Ensuring accuracy and consistency in the texts” (f=9) in the theme indicates the standardization provided by CAT tools in texts requiring technical knowledge and expertise. Students emphasized that consistent terminology use in different contexts improves translation quality. This finding shows that students have internalized the systematic way in which CAT tools operate.

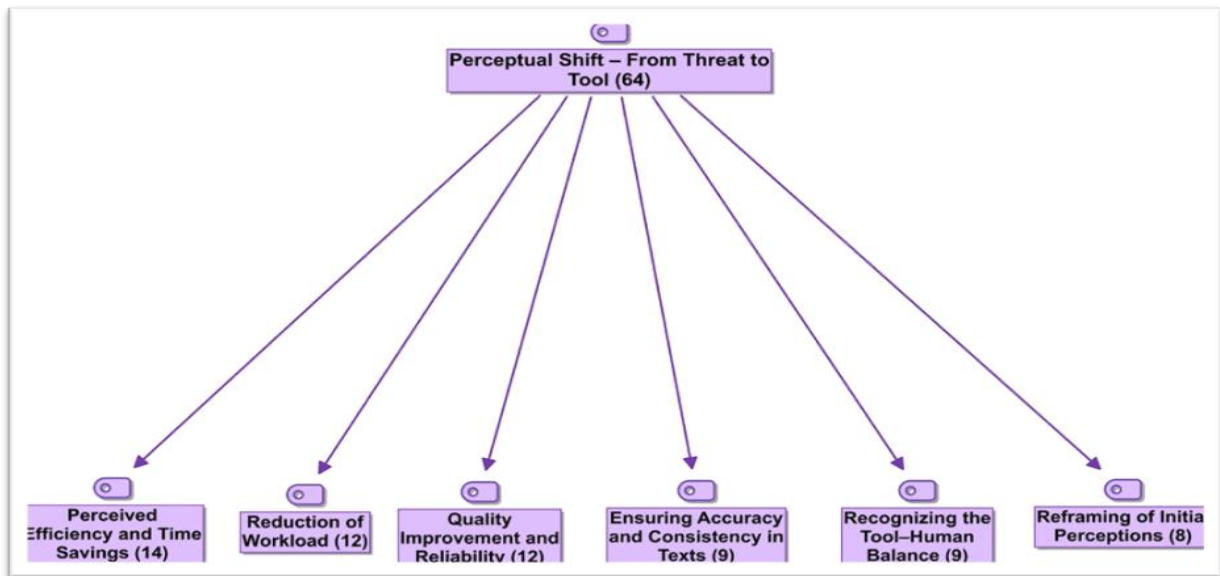
The sub-code “recognizing the balance between the tool and the human” (f=9) reflects the conceptual dimension of perceptual transformation. Students indicated that CAT tools are not sufficient on their own, and that the final decision during the translation process is always made by a human.

The sub-code “Reshaping the initial concept” (f=8), which appears at a foundational level, shows that students retrospectively reassessed their initial assumptions about CAT tools. Students indicated that perceptions rooted in fear, threat, and professional insecurity were largely due to a lack of experience. This reshaping process clearly indicates the role of learning in perceptual transformation.

The theme of Perceptual Transformation – From Threat to Familiarity demonstrates that the CAT course not only provides students with technical expertise but also fosters an intellectual transformation in terms of professional identity, technology perception, and translation practices. This transformation provides an essential framework for understanding professional positioning, ethical awareness and tool-based experiences.

The transformation from threat to familiarity observed in this study supports Canım-Alkan’s (2013) view that technology education should focus on developing transferable professional skills rather than software-specific knowledge. It also confirms Venkatesan’s (2023) finding that systematic instruction can reduce students’ hesitation toward translation technologies. Unlike

previous studies that focus mainly on technical gains, this study highlights the emotional and identity-related dimensions of this transformation process.



**Figure 5.** Hierarchical Code-Subcode Model: Perception Transformation Theme (From Threat to Tool) – Distribution of Subcodes

### **The Theme of The Position of CAT Tools in the Translation Profession (f=56)**

This theme emphasizes how students position CAT tools within the context of the translation profession and how they perceive their effects on professional identity, role definition and value perception. This theme, with a total code frequency of 56, shows that CAT tools are not merely technical software but also a factor shaping the structure and perception of the translation profession (Figure 6).

The sub-code with the highest frequency within this theme was “Viewing the tools as a supporting/complementary role” (f=16). Students define CAT tools as supportive tools that assist, speed up, and regulate translation work, rather than as systems that replace the translator. This finding shows that students continue to attribute professional authority to translators and regard tools as secondary.

In this context, the sub-code “Redefining the role of the translator” (f=7) reflects the transformation observed in professional perceptions. Students stated that with the widespread use of CAT tools, the translator has evolved into an expert who manages the process, makes decisions, and performs quality assurance, rather than merely generating text. This redefinition highlights the prominence of editorial and strategic qualifications, in addition to technical skills.

Another distinct sub-code within the theme was “Dual perception: Threat+ support” (f=7). While students find CAT tools professionally beneficial and supportive, they also express uncertainty regarding their long-term transformative effects on the nature of the profession. This dual perception indicates cautious acceptance rather than a clear rejection of technological advancement.

The sub-code “questioning of professional identity” (f=6) reveals that CAT tools affect the way translators define themselves in the profession. Students expressed that several topics, such as the visibility of the translator’s work and perception of their expertise and professional status, should be assessed again, together with the technology.

The sub-code “Not viewing as a threat” ( $f=6$ ), which appears at a foundational level, reveals that CAT tools are not directly perceived as a professional threat to the participants. Students emphasized that tools do not produce translations independently and remain inadequate without human intervention; therefore, concerns about the elimination of the profession have diminished since then. This finding indicates that the perception of technology as transforming rather than eliminating the profession has become more prominent in recent years.

The sub-code “the reality of post-editing” ( $f=5$ ) demonstrates that a concrete transformation in translation practices has been acknowledged by the participants. Students stated that they accept that the role of translator has become more focused on editing, checking, and improving the final product. This demonstrates that CAT tools and MT are regarded as inevitable realities in professional practice.

In connection with this, the sub-codes “Fear of decrease in the value of the translator” ( $f=4$ ) and “Concerns about ‘being solely an editor’ ” ( $f=4$ ) demonstrate that professional concerns have not been eliminated. Students expressed concerns that a post-editing-focused work model may undermine the creativity and intellectual contributions of the translator. These concerns indicate that the perception of professional value should be reconsidered in conjunction with technology.

The theme shows that students began to position CAT tools within the profession rather than the reverse. Students perceive CAT tools as supportive and complementary systems and are aware of the role, identity, and value of translators. This theme is one of the fundamental findings of this study, as it highlights the boundaries of the translation profession and its mode of functioning, rather than suggesting its elimination through technological advancement..

These results align with those of Balkul (2016), who stated that translation technologies should be considered an essential part of translator training. This also coincides with the view presented by Kenny (2020) regarding career skills. At the same time, this study highlights several issues associated with post-editing and the labor invisibility of translators.

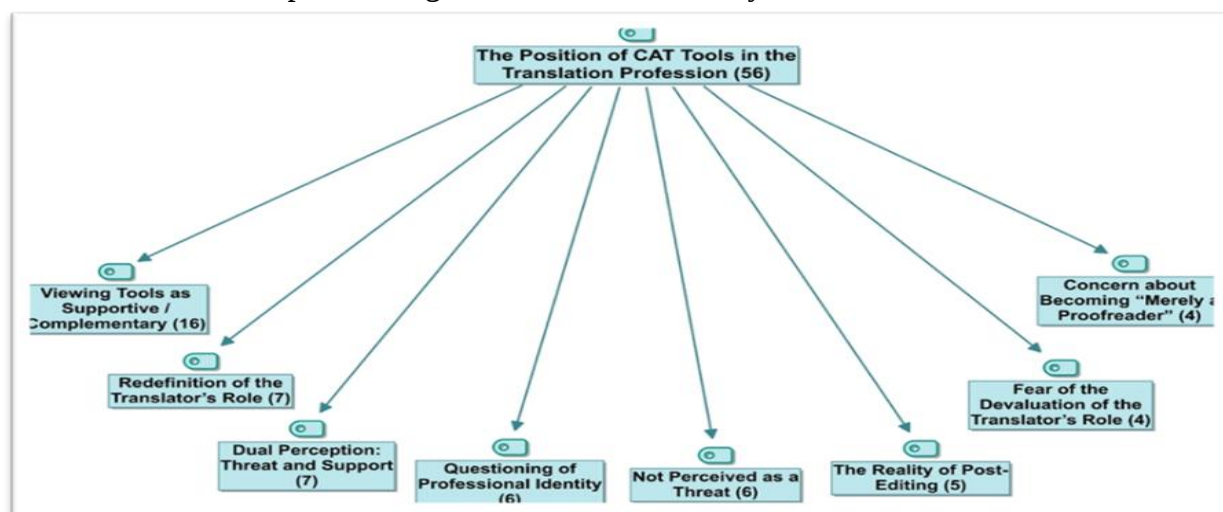


Figure 6. Hierarchical Code-Subcode Model: Theme of CAT Tools' Role in the Translation Profession – Distribution of Subcodes

### The Theme of Ethical Awareness and Hesitation ( $f=28$ )

This theme reflects students' awareness, hesitation, and perceptions of their professional responsibility regarding ethical issues in the use of CAT tools. The theme, with a total code

frequency of 28, indicates that students perceive technology use not only as a technical or pedagogical issue but also as an ethical consideration (Figure 7).

The sub-code with the highest frequency within the scope of the theme was “Ethical concerns due to data security” (f=10). Students shared concerns about the possibility of text being stored or shared on third-party systems or of allowing unauthorized access, specifically when using MT and online CAT tools. This concern is directly related to the confidentiality obligation and professional ethical principles of the translator, indicating an awareness of the expanding scope of the translator’s responsibilities. The sub-code “Ethical ambiguity” (f=8), ranked second, demonstrates that students lack a clear view of whether the use of CAT tools is ethically acceptable. Students reported doubts regarding the extent to which MT output should be used, the level of human intervention required, and how tool usage aligns with professional ethics. The sub-code “Professional responsibility perception” (f=5) revealed that students perceived their responsibility not as diminished but rather as increased. Students emphasized that the final decision and responsibility for the text should be undertaken by the translator, despite the automated solutions provided by CAT tools. This finding shows that ethical awareness does not remain a passive concern but develops into a sense of professional responsibility.

The sub-code “Considering it Ethical” (f=3), which appears at a foundational level, shows that some students believe that using CAT tools does not raise ethical concerns. These students expressed that the tools functioned solely as supportive systems and that ethical issues arose from how they were used, rather than from the tools themselves. This approach demonstrates that a user-centered understanding develops in ethical evaluation rather than a tool-based perspective. Finally, the sub-code “Tool use – invisibility of the effort” (f=2) emphasizes the impact of technology on the perception of the translator’s effort: Students expressed concerns that using CAT tools might make the translator’s contribution less visible and result in their efforts being overlooked by clients. This finding reveals that ethical debates are not limited to confidentiality and accuracy but encompass a broader scope, including effort, value, and professional recognition.

The theme of Ethical Awareness and Hesitation demonstrates that students do not adopt CAT tools blindly; instead, they question the effects of these tools on their perception of professional ethics, responsibility, and effort. This theme indicates that students’ relationship with technology has not only a practical dimension but also a value-based dimension, consistent with the phenomenological approach of the study.

Concerns about data protection, privacy, and ownership by students indicate that translation technology training should also be critically assessed, as Kenny (2020) noted. Additionally, Canım-Alkan (2013) argues that technology education must provide opportunities for developing professional responsibility and technical ability. The results show how CAT courses can provide a valuable opportunity to develop ethical awareness.

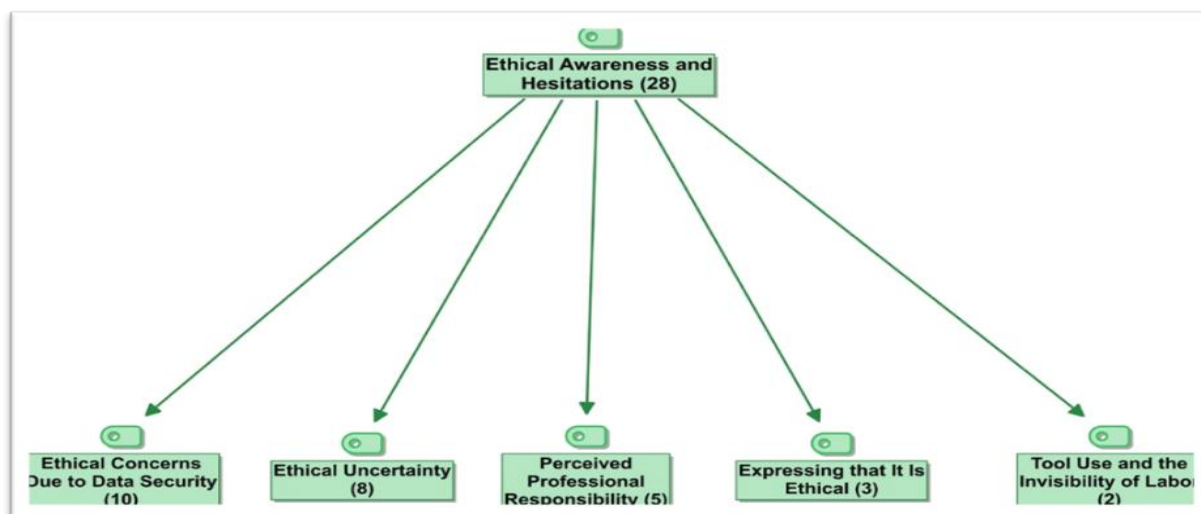


Figure 7. Hierarchical Code-Subcode Model: Theme of Ethical Awareness and Ethical Concerns – Distribution of Subcodes

### The Theme of the Effect of CAT Tools on the Translation Self-Confidence (f=53)

This theme reveals how experience with CAT tools affects students' perceptions of their self-confidence in the translation process. This theme, with a total code frequency of 53, reveals that technological tools are not merely technical support resources but also play a significant role in shaping students' perceptions of professional identity and their sense of self-efficacy (Figure 8).

One of the highest-frequency subcodes within this theme, "Support and convenience provided by tools" (f=14), indicates that students perceive CAT tools as systems that support them, facilitate their work, and make the process more manageable. Students indicated that terminology management, accuracy assurance, and consistent support provided by tools during repeated translation processes reduced their concerns about making mistakes, allowing them to approach the translation process with greater confidence.

The sub-code "increased self-confidence" (f=14), which aligns with this perception, shows that working with CAT tools enhances students' confidence in their translation skills. While working on complex or lengthy texts, students reported feeling more competent and confident because of the support provided by these tools. This finding suggests that increased self-confidence is fostered not only through technical competence but also through the manageability of the translation process itself.

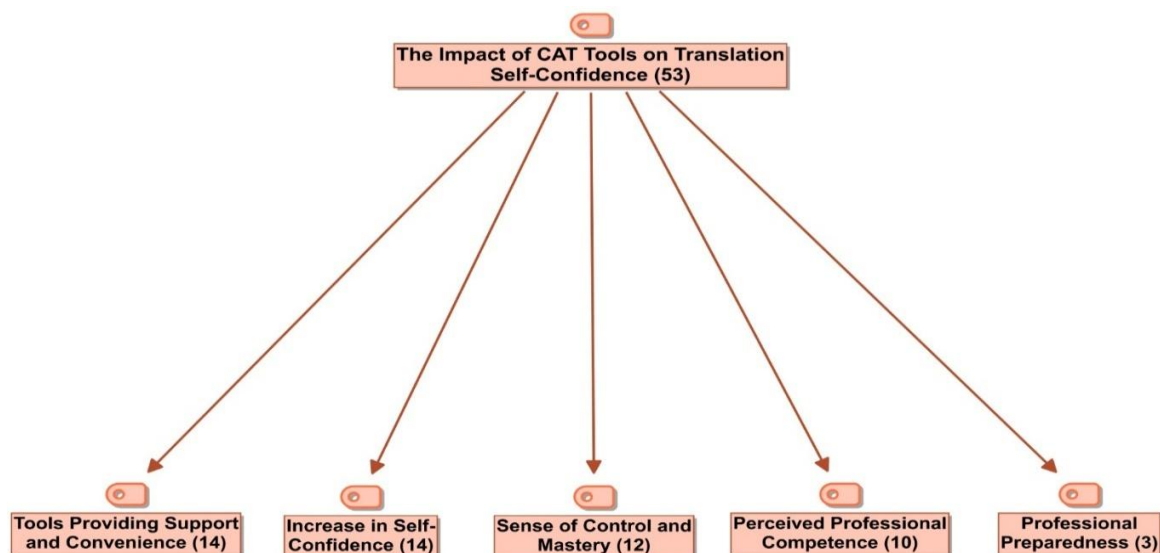
The sub-code "Sense of control and authority" (f=12) indicates that students feel that they manage the translation process in a more planned, systematic, and controlled manner. The ability to conduct a holistic review of the text using a CAT tool, revisit previous translation decisions, and monitor consistency has increased students' control over the translation process. This contributes to the execution of the translation process in a more conscious and strategic manner.

The sub-code "Professional proficiency perception" (f=10), which appears at a foundational level, reveals that students perceive the use of CAT tools as a significant indicator of professional proficiency in translation. Students indicated that being competent in these tools made them feel more "professional" and positioned them closer to the current requirements of the profession. This finding shows that technology use plays a functional role in constructing professional identity.

Finally, the sub-code “Professional readiness” (f=3) indicates that experience gained through CAT tools enhances students’ readiness for professional life. Students believe that working with these tools exposes them to real-world translation market practices and makes them feel more prepared for the post-graduation period. Although its frequency was lower than that of other subcodes, this finding remains meaningful in highlighting the importance of CAT training for transitioning into the profession.

The theme Effects of CAT Tools on Translation Self-Confidence indicates that technological tools enhance students’ self-confidence, sense of control, and perception of professional competence in the translation process. Students position CAT tools as valuable technical support and a factor that supports their professional development and makes them feel closer to a translator’s identity. These findings show that CAT training plays an important role in both the pedagogical and professional aspects of a translator’s development.

The increase in students’ self-confidence is consistent with Akgün and Mercan (2023), who reported that CAT tools positively contribute to translation competence and professional readiness. The present study expands this perspective by showing that students experience increased confidence through greater control, systematic workflows, and stronger professional identities.



**Figure 8.** Hierarchical Code-Subcode Model: Theme of CAT Tools’ Impact on Translators’ Self-Confidence – Distribution of Subcodes

### **Tool-Based Experience – Challenges and Benefit Perception Theme (f=42)**

This theme examined students’ experiences during direct interaction with CAT tools by focusing on the relationship between experienced difficulties and perceived benefits. The theme, with a total code frequency of 42, indicates that students perceive CAT tools as neither entirely unproblematic nor entirely problematic; rather, they evaluate them as functional tools whose value emerges through the challenges they encounter (see Figure 9).

The sub-code with the highest frequency within the scope of the theme, “long-term professional benefit perception” (f=15), revealed that students perceive CAT tools as a significant and necessary investment for their future professional lives, despite short-term learning difficulties. As students become aware of the widespread use of these tools in the profession, they perceive the challenges encountered during the learning stage as temporary and focus on the long-

term benefits. This indicates that students interpret these tools from a professional future perspective rather than merely in the context of the course.

The sub-code “Technology adaptation” ( $f=10$ ) revealed that students perceive the learning process of CAT tools as part of a broader process of technological adaptation. Students emphasized that adapting to technological advancements is critical in the translation profession and that competence in these tools is essential for professional sustainability.

The sub-code “Challenging but valuable tools opinion” ( $f=7$ ) in the theme indicates that students develop a doubtful approach towards CAT tools. Students acknowledge that these tools are initially challenging, but they perceive these difficulties as meaningful and manageable because of the benefits they provide. According to this perception, the cognitive effort required during the learning stage is balanced by the tool’s functionality. Supporting this finding, the sub-code “Learning curve (First challenging, then beneficial)” ( $f=6$ ) shows that students’ experience with CAT tools evolved over time. Initial confusion, concerns about making errors, and reduced speed were gradually replaced by increased speed, consistency, and a sense of security as the experience progressed. This finding reveals that learning CAT tools is a nonlinear process that develops through experience.

Focusing on technical challenges, the sub-code “Complexity of the interface – technical challenges” ( $f=4$ ) shows that students experience difficulties with interface complexity, terminology management, and technical settings. Although its frequency was lower than that of other subcodes, this finding remains meaningful in highlighting the importance of CAT training for transitioning into the profession.

The theme Tool-Based Experience – Challenges and Benefit Perception reveals that students conceptualize the challenges experienced during the process of learning CAT tools in terms of long-term professional benefits, technological coherence, and professional requirements. Students position CAT tools as valuable, necessary, and inevitable for the profession despite the challenges involved, indicating that they have developed a more realistic and mature approach to the learning process.

These results confirm Venkatesan's (2023) assertion that students are reluctant to employ translation technologies despite recognizing their benefits. They also support Şahin (2013), who argued that translator education increasingly requires the use of technology as an essential learning tool, especially since students perceive early difficulties to be merely temporary and view CAT tools as an important tool for their future career development.

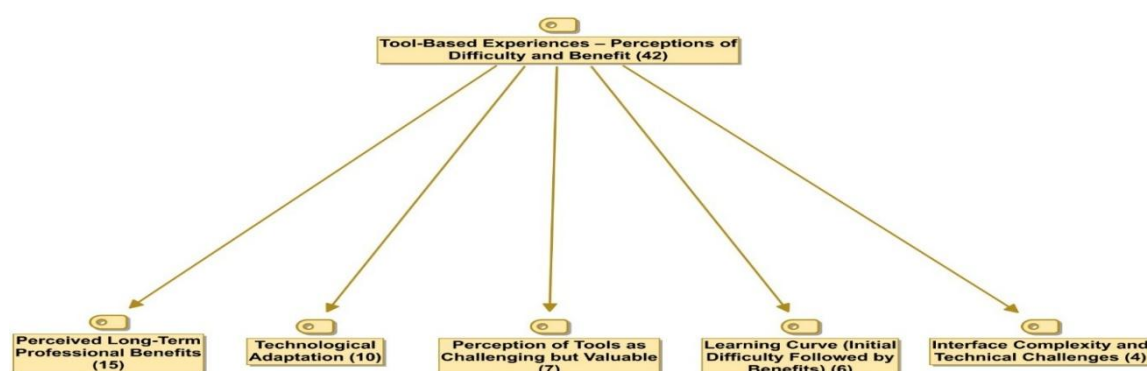


Figure 9. Hierarchical Code-Subcode Model: Theme of Tool-Based Experiences: Perceptions of Challenges and Benefits – Distribution of Subcodes

## Conclusion

This study examines, using a phenomenological approach, the perceptions, expectations, and experiences of students enrolled in a CAT course at the Department of Translation and Interpreting of Ankara Yıldırım Beyazıt University regarding CAT tools. The findings reveal that students primarily perceived CAT tools as complex, challenging, and professionally threatening technologies prior to the course; however, this perception significantly transformed as a result of the practical activities and direct experiences during the course. This transformation can be explained by students' repositioning of technology, not solely from the perspective of automation and "human replacement," but as a supportive system operating under the translator's control.

The research results show that the CAT course develops a strong awareness among students, particularly in dimensions such as efficiency, time saving, terminological consistency, and quality assurance. Students stated that functions such as translation memory, terminology management, quality control, and MT integration make the translation process more systematic and facilitate decision-making in the translation process.

However, the study also showed that while students developed positive perceptions of technology, some critical concerns persisted. In particular, issues such as the increase in post-editing applications, the invisibility of the translator's work, and the shift in the translator's professional role from "producer" to "proofreader/editor" indicate that students have hesitations in the context of their professional identity. The study shows that the impact of CAT tools on the translator industry as an industry transformation has not only been a technological transformation; it is an industry transformation that should be considered in the context of translation as a professional role of translator identity, social value, and visibility of translators.

An additional key result of the study shows that students' ethical conscience was raised as a result of taking CAT classes. Students became more aware of various ethical issues related to translation. For example, their awareness of data security, privacy, storing files on third-party systems, and the responsible use of machine translation increased. This finding serves as another indication of how important it is for educators to incorporate discussions about translation technologies into the curriculum, not only related to students' ability to use those technologies, but also with respect to their ethical implications. Therefore, educators should incorporate ethical discussions into CAT course content and encourage students to be ethically responsible when using translation technologies.

One major impact of CAT tools on students' experiences is the development of their translation self-efficacy. The results demonstrate that those learning how to use CATs feel more confident in their abilities and are better prepared to enter the workforce. An increased sense of control and a lower level of difficulty in finding errors would help students develop an increased perception of self-efficacy. Hence, this study confirms that learning how to use CAT tools helps improve technical competence and develop psychological and professional self-confidence in future translators.

The students who participated in this research study believed that the obstacles they faced while studying CAT tools were only short-term and that these tools would provide them with a huge amount of long-term professional benefit. Originally, students may have encountered some problems, such as a complex interface or difficulty in managing the terminology, but they believed that these obstacles could be overcome with practice and that they would gain an advantage in

their working lives by applying this type of technology. The results illustrate the need for a combination of long-term and practical experience in learning CATs.

Overall, this study demonstrates that CAT courses create a perceptual transformation in translation students, and the initial perspective that views technology as a threat evolves into a more balanced and critical one. The study concludes that CAT education not only provides tool-using skills but also strengthens students' perceptions of their professional identity, ethical questioning, and translation confidence. In this context, it is recommended that CAT courses in translation education programs be strengthened in terms of content and application, the ethical dimension be integrated more systematically, and learning environments be created that enable students to develop a realistic perspective of the professional sector.

The findings highlight that CAT education plays a transformative role not only in developing technical competence, but also in shaping translators' professional identity, ethical awareness, and long-term adaptability to technological change, and are in alignment with previous studies exploring the educational and professional importance of translators' use of translation technology. However, they also illustrate the dimensions of translators' experiences with CAT tools in terms of emotions, ethics, and identity.

## References

- Abu Dayyeh, I. (2020). Use and evaluation of computer-aided translation tools (CAT) on the word level from the perspective of Palestinian translators and translation trainees. *AWEJ for Translation and Literary Studies*, 4(1), 111–130. <https://doi.org/10.24093/awejtls/vol4no1.9>
- Akgün, Y., & Mercan, H. (2023). The effects of teaching computer-assisted translation tools in translation and interpreting departments on students' developing translation competence as perceived by lecturers. *Abant Journal of Translation and Interpreting Studies*, 1(1), 43–54. <https://izlik.org/JA63ZE26UD>
- Alotaibi, H. M. (2020). Computer-assisted translation tools: An evaluation of their usability among Arab translators. *Applied Sciences*, 10(18), 6295. <https://doi.org/10.3390/app10186295>
- Balkul, H. İ. (2016). Translation technologies: A dilemma between translation industry and academia. *International Journal of Language Academy*, 4(4), 100–108. <https://doi.org/10.18033/ijla.439>
- Canım Alkan, S. (2013). Lisans düzeyinde çeviri eğitiminde teknoloji eğitiminin yeri. *İ.Ü. Çeviribilim Dergisi*, (7), 127–147. <https://izlik.org/JA92FG48ZG>
- Çetiner, C. (2018). Analyzing the attitudes of translation students towards CAT (computer-aided translation) tools. *Journal of Language and Linguistic Studies*, 14(2), 150–165. <https://izlik.org/JA27YL53MC>
- Dalmış, E., & Yıldız, M. (2025). Makine çevirisinin sınırları: Edebi metin türünde makine çevirisi kalite analizi., 8(1), 314–326. <https://doi.org/10.37999/udekad.1627217>
- European Association for Machine Translation. (n.d.). *EAMT: European Association for Machine Translation*. <https://eamt.org>

- Genç, E. (2025). Impact of SORA AI-generated storyboards on CLIL writing anxiety, motivation and enjoyment. *Computer-Assisted Language Learning Electronic Journal: Special Issue AIIDLE*, 26(7), 46–67. <https://doi.org/10.54855/>
- Hutchins, W. J. (1995). Machine translation: A brief history. In E. F. K. Koerner & R. E. Asher (Eds.), *Concise history of the language sciences: From the Sumerians to the cognitivists* (pp. 431–445). Pergamon Press.
- Olohan, M. (2011). Translators and translation technology: The dance of agency. *Translation Studies*, 4(3), 342–357. <https://doi.org/10.1080/14781700.2011.589656>
- Kenny, D. (2020). Technology in translator training. In M. O'Hagan (Ed.), *The Routledge handbook of translation and technology* (pp. 498–515). Routledge.
- Kiraly, D. (2000). *A social constructivist approach to translator education: Empowerment from theory to practice*. St. Jerome Publishing.
- LeBlanc, M. (2013). Translators on translation memory (TM): Results of an ethnographic study in three translation services and agencies. *The International Journal for Translation & Interpreting*, 5(2), 1–13. <https://doi.org/10.12807/ti.105202.2013.a01>
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. Jossey-Bass.
- Şahin, M. (2013). Technology in Translator Training: The Case of Turkey. *Hacettepe Üniversitesi Edebiyat Fakültesi Dergisi*, 30(2), 173–190.
- Şahin, M. (2024). Türkiye Cumhuriyeti'nin 100. Yılında Çeviri Teknolojileri. *Septet*, 3(1).
- Venkatesan, H. (2023). Technology preparedness and translator training: Implications for pedagogy. In *Proceedings of Machine Translation Summit XIX, Vol. 2: Users Track* (pp. 24–41).
- Xu, M., & Wang, C. (2011). Translation students' use and evaluation of online resources for Chinese-English translation at the word level. *Translation and Interpreting Studies*, 6(1), 62–86. <https://doi.org/10.1075/tis.6.1.04xu>

**Ethical Statement/Etik Beyan:** It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited. Ethical approval for this study was obtained from the Social and Humanities Sciences Ethics Committee of Ankara Yıldırım Beyazıt University (AYBU), under decision number 01/06, dated January 19, 2026. / Bu çalışmanın hazırlanma sürecinde bilimsel ve etik ilkelere uyulduğu ve yararlanılan tüm çalışmaların kaynakçada belirtildiği beyan olunur. Bu çalışma için etik kurul onayı, Ankara Yıldırım Beyazıt Üniversitesi İnsan ve Toplum Bilimleri Etik Kurulundan 19.01.2026 tarih ve 01/06 sayılı karar ile alınmıştır.

**Declaration of Conflict/Çatışma Beyanı:** It is declared that there is no conflict of interest between individuals or institutions in the study. / Çalışmada kişi ya da kurumlar arası çıkar çatışmasının olmadığı beyan olunur.

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## Appendix 1

1. What were your thoughts on CAT tools before taking the Computer-Assisted Translation (CAT) course?
2. To what extent did learning the tools covered in the CAT course (translation memory, terminology management, quality assurance, machine translation, and corpus use) influence your perception of CAT tools?
3. How do you evaluate CAT tools in terms of the translation profession?
4. Have you ever questioned or felt ethically uncertain about using CAT tools, particularly features such as machine translation, translation memory, or automated quality assurance checks?
5. What do you think are the benefits and limitations of CAT tools (translation memory, terminology management, quality assurance, machine translation, and corpus tools)?
6. How has learning to use CAT tools affected your confidence in translation?