



Participatory Educational Research (PER)
Vol.11 (Prof. Dr. H. Ferhan Odabaşı Gift Issue), pp. 151-167, December 2024
Available online at <http://www.perjournal.com>
ISSN: 2148-6123
<http://dx.doi.org/10.17275/per.24.99.11.6>

Id: 1587762

Artificial Intelligence-Assisted Translation in Education: Academic Perspectives and Student Approaches

Demet ÖZMAT*

Intercurricular Courses, Çankaya University, Ankara, Türkiye
ORCID: 0000-0002-8936-020X

Buket AKKOYUNLU

Intercurricular Courses, Çankaya University, Ankara, Türkiye
ORCID: 0000-0003-1989-0552

Article history

Received:
18.10.2024

Received in revised form:
28.11.2024

Accepted:
16.12.2024

Key words:

Generative Artificial Intelligence (GAI) technologies, Higher Education, Translation Studies.

Although artificial intelligence is present in many areas of life, making life easier, it also necessitates the updating of certain professions or curriculum of university departments. In this regard, it is considered important to determine how AI-based translation tools will specifically affect translation studies and to gather the opinions of students and faculty members in these departments. This study aims to examine the opinions of Translation and Interpreting Department students and faculty members on the use of artificial intelligence in translation studies. The research was conducted with 7 faculty members, 1 translation expert, and 15 final-year students at a foundation university. Data were collected through semi-structured interview forms and evaluated using content analysis. Students expressed concerns that artificial intelligence will reduce job opportunities in the profession. They also believe that the use of AI weakens memory and leads to laziness. Some students have noted that AI undermines and weakens the teacher-student relationship. Faculty members, on the other hand, think that AI will redefine the translator's roles in the profession and provide significant support. Whilst the students advocate for the inclusion of AI in post-graduate professional life rather than in undergraduate education and support it with extracurricular activities, the faculty members underline the need to increase the integration of AI into translation studies education, provide in-service training, and expedite curriculum development studies. These results highlight different perspectives on the use of artificial intelligence in the field of translation studies and suggest recommendations that could contribute to the curriculum of translation departments.

Introduction

Technological advancements have created a digital revolution, profoundly affecting our lives. Artificial Intelligence (AI) has emerged as a result of this revolution and acquiring the skills to "coexist with Artificial Intelligence" has become one of the most critical requirements for individuals to maintain a normal lifestyle. AI is a comprehensive branch of computer science dedicated to developing intelligent devices capable of performing tasks that typically require

* Correspondency: demetgulsoy@cankaya.edu.tr

human intelligence, such as information processing, problem-solving, reasoning, critical thinking, and similar activities (Zouhaier, 2023).

AI translation tools operate by automatically converting one language into another, employing machine translation to transform text, images, or videos in a source language into their equivalents in the target language. Examples of AI translation software and tools include Google Translate, DeepL, Wordvice AI, Google Lens, Alexa Translations, and Taia. These advanced tools support over 100 languages in real-time, offering capabilities such as text, speech, and image translation. As AI continues to evolve, these translation tools will undoubtedly become more sophisticated, offering greater accuracy and ease of use, thereby enhancing global communication and understanding (Bailey, 2023). Despite there is a significant volume of studies on AI in education emerging in recent years, signalling a surge of interest, the actual effects of applications like ChatGPT on higher education institutions and stakeholders remain enigmatic (Zawacki-Richter et al., 2019).

Artificial Intelligence and Human Translation

Artificial Intelligence is a technology that enables machines to learn and perform tasks typically requiring human intelligence, such as speech recognition, decision-making, and language translation. Translation, on the other hand, is the process of converting written or spoken content from one language to another. AI translation tools operate by breaking content into smaller segments and applying algorithms to each segment. These algorithms analyse the content and generate a translation based on a set of rules and patterns (Ali, 2020). These developments and conveniences have made the future of languages, language learning, and translation one of the most debated topics in education. Yang (2022) mentioned that, with the development of automated translation tools, a new translation concept known as artificial intelligence translation has appeared, with further scenarios emerging in new machine translation apps to offer greater equivalence to human translators. While some view such AI tools, particularly ChatGPT, as a threat that might hinder students' creativity and encourage them to seek easy solutions, others believe that these tools can promote effective language teaching (Chen, Chen & Lin, 2020). In line with this, AI also is regarded as a promising tool capable of improving educational experiences through the creation of high-quality learning materials while others express concerns about its impact on the autonomy and pedagogical expertise of education (Jain and Raghuram, 2024). From this perspective, it is crucial to examine the benefits and threats of AI translation tools (Belda-Medina & Calvo-Ferrer, 2022). Traditional language educators express concerns about the potential threats AI may pose to human translators. They worry about the loss of cultural nuances that human expertise can capture and a potential decline in translation quality (Belda-Medina & Calvo-Ferrer, 2022; Canfora & Ottmann, 2020). One of the most critical discussions surrounding AI translation systems is ethics. A primary concern is the potential for bias in translations. AI translation tools may fail to accurately translate culturally or politically sensitive content, leading to misunderstandings and even conflicts (Bo, 2023; Niederman & Baker, 2023; Belda-Medina & Calvo-Ferrer, 2022; Drugan & Tipton, 2017).

When examining the studies conducted in the field of artificial intelligence and the field of translation and interpreting (Odacıoğlu, 2022; Kozan, 2023; Alimen, 2023), it is observed that artificial intelligence-supported translation teaching has not yet been included in translation studies, curriculum and there is a need to determine the opinions of students and faculty members in order to draw a roadmap for the future.

In this context, this study aims to identify the views of students and faculty members regarding the use of artificial intelligence in translation studies, to develop an updated curriculum, observe the awareness of faculty members and students, and to contribute to future studies related to this field. To achieve these goals, this study seeks to answer the following questions: “How are the opinions and faculty members...

- (1) 1-regarding the future of the translation profession with AI translation tools?
- (2) 2-regarding the advantages and challenges of AI translation tools?
- (3) 3-regarding the integration of human and AI translation systems?
- (4) 4-regarding the recommendations for the use of AI translation tools in education?

In line with these research questions, the aim of this study is to identify the views of Translation and Interpreting students and faculty members, particularly regarding the use of AI technologies in translation studies. It is expected that restructuring the views of students and faculty members about translation studies will contribute to the curriculum development studies of the Translation and Interpretation departments. According to Chan and Hu (2023), ultimately, understanding students' and faculty members' thoughts about AI is seen as significant in shedding light on how AI can be integrated into education and how it can be utilized in their professions. By understanding students' perceptions, educators and policymakers can tailor GenAI technologies to address needs and concerns while promoting effective learning outcomes. By understanding students' perceptions and addressing their concerns, policymakers can create well-informed guidelines and strategies for the responsible and effective implementation of GenAI tools, ultimately enhancing teaching and learning experiences in higher education. Thus, the study appears to be quite significant from these perspectives as well.

Method

Research Methodology

In this study, a qualitative research method has been adopted to collect data in order to determine the artificial intelligence assisted translation in education and current situation via gathering the opinions of students and academics using a descriptive method. Based on their own opinions and experiences, the students and academics opinions were determined through face-to-face interviews using a semi-structured data collection tool. With research based on this descriptive survey method, questions such as what the current situation is, where we are, what we want to do, where we should go, and how we can get there are sought to be answered based on the data within the current time frame (Kaptan, 1998). The most important advantage of the semi-structured interview technique is that it provides more systematic and comparable information due to the interview being conducted according to a pre-prepared interview protocol (Yıldırım and Şimşek, 2013).

Sampling

In order to determine and deeply investigate the opinions of students and teaching staff from the Translation and Interpreting Department at a university based in Ankara were recruited. The research sample consisted of 15 final year college students (N= 9 female and N= 6 male), 7 faculty members (N= 5 female and 2 male) teaching in the department and 1 translation expert. The study group was selected using a convenience sampling method.

According to Rahi (2017), convenience sampling describes the data collection process from a research population that is effortlessly reachable to the researcher.

Data Collection Tools

In the literature, the opinions of students and academics in the different departments about artificial intelligence have been identified. The draft semi structured interview forms were created and to determine the content validity of the prepared the draft forms, opinions were obtained from two professors of translation and interpreting department, one Turkish language subject expert, and one assessment and evaluation expert. Necessary corrections and changes were made based on the feedback received, and the final versions of the interview forms were established resulting in a comprehensive interview form consisting of 5 questions. The interview form allows for obtaining similar types of information from different individuals by focusing on related topics (Yıldırım & Şimşek, 2013). The semi-structured interview technique provides the researcher with the significant advantage of presenting more systematic and comparable information, as the interview is conducted according to a pre-prepared protocol (Yıldırım & Şimşek, 2013).

After obtaining ethical approval from the university, face-to-face interviews were conducted with 15 final year students and 8 academics at a university in Ankara. These interviews were scheduled in advance during the spring semester of 2023-2024. The semi-structured interviews conducted with the participants were recorded using a voice recorder, based on the principle of voluntariness, after having them sign informed consent forms.

Data Analysis

The study data were analysed using inductive content analysis. The recorded interviews were transcribed by the researcher. After determining themes and codes, detailed descriptions, coder reliability, and expert reviews were conducted. Frequencies and percentage values were established based on the identified codes and themes, and explanations and interpretations were provided through direct quotations. To ensure the internal validity of the data analyses, an expert in the field was consulted. Detailed explanations regarding the process and results of the research were included to ensure external validity. The "Observer-Dependent Reliability" method was utilized to ensure internal reliability, and an internal reliability review was conducted with two field experts. The percentage agreement formula proposed by Miles and Huberman (1994) was used to calculate reliability, and inter-coder consistency was assessed for the data obtained from the teachers. The reliability percentage was obtained from the formula ($\text{Reliability Percentage} = \frac{\text{Agreement}}{\text{Total Agreement} + \text{Disagreement}}$) 83 was calculated for the data obtained from the teachers while reliability percentage for data from students was 81. This ratio indicates that reliability has been achieved in terms of data analyses. In order to reflect the participants' views clearly and comprehensively, the findings have been supported by direct quotations. Lastly, while direct quotations were being presented, students were coded with the letter 'S' and academics with the letter 'A'.

Limitations

The study is limited to the opinions of the participating students, faculty members, and an expert involved in the research.



Findings and Discussion

Findings and Discussion Related to the First Research Question

The opinions of students and academics regarding the future of the Translation and Interpreting profession have been examined. Their views were coded and presented below. The similarities and differences in the views of academics and students regarding the profession have been highlighted.

Table 1: Students' Views on the Future of the Translation and Interpreting Profession

Theme	Codes	f	%
The Future of Translation and Interpreting via Artificial Intelligence	Both threat and opportunity	11	73
	Human superiority	10	66
	Reduction in job opportunities	6	40
	Sense of uncertainty	5	33
	Commercial concerns	5	33
	Support for the profession	5	33
	Artificial intelligence superiority	4	26
	Threat	3	20

Table 2: Academics' Views on the Future of the Translation and Interpreting Profession

Theme	Codes	f	%
Future of the Translation and Interpreting Profession	Human superiority	8	100
	New job definition for translators	6	75
	Artificial intelligence as a necessity	5	62,5
	Opportunity	4	50
	Support for the profession	4	50
	Both a threat and an opportunity	2	25

According to the table 1 and 2, students view human capability in translation as superior to that of artificial intelligence; however, many students also see AI as both a threat and an opportunity. In contrast, few faculty members consider artificial intelligence as a real threat in the future. Besides, faculty members characterize AI as representing new roles for translators and also a necessity for their professions in the future. Both students and faculty believe that human translators will continue to remain superior to AI in the future. The majority of students (6) think that there will be a decline in job opportunities due to AI resources and have expressed a sense of uncertainty regarding this. Both teachers and students perceive AI as a supporting medium for their professions.

An example of a student’s opinion related to AI as both a threat and opportunity theme is provided below:
S11:

“...frankly, it’s both a threat and an opportunity. Because the platforms and speed it provides for accessing information create many opportunities for translators, thanks to the different perspectives it develops and adds. Especially in the translation world, it can create a positive perception by speeding up the process known as ‘post-editing’ and helping translators when employers struggle to meet demands. My personal opinion is mostly in this direction...”

An example of a student’s opinion related to human superiority compared to AI is provided below:

S7:

“...The development of AI-supported translation technologies is directly proportional to human translators increasing their knowledge and improving themselves in the field. As translators enhance their capacities, especially concerning cognitive processes and artificial intelligence operations, AI-supported translation technologies can develop. Therefore, I do not believe it is possible for AI to replace translators in the short-term future. As long as the control of AI programs or translation programs based on this is in human hands, I do not see it as a major threat.”

When analysing the responses from students to this question, it can be said that their perception of AI as a threat in translation stems from professional and commercial concerns, as some students worry that AI may replace their jobs and lead to employment issues. Some students also indicated that they feel a sense of uncertainty about the future and have commercial concerns. Only 4 students believe that artificial intelligence is superior to translation studies.

Below are some faculty members' opinions that artificial intelligence (AI) will not replace human translators in the future:

A2:

"However, AI translation in its current state can only help understand the general meaning of a text but does not provide a complete, accurate, or contextually faithful translation. It is unlikely to fully replace a translator. Just as computers have not replaced mathematicians in the short term, the same can be said for the field of translation."

A4:

"It seems difficult for AI to fully replace human translators, especially for translations that require creativity, deep cultural understanding, and emotional context. Instead, a future where AI and human translators work together, complementing each other's shortcomings, appears more likely. AI tools can assist human translators in working more efficiently, while human expertise can be leveraged for more complex tasks. In this sense, instead of replacing human translators, AI-supported translation technologies can remain valuable tools in a translator's toolkit."

Findings Related to the Second Research Question

The views of students and faculty members regarding the advantages artificial intelligence have been presented below.

Table 3: Students' Views on the Advantages of Artificial Intelligence

Theme	Codes	f	%
Advantages of AI	Time and speed	15	100
	Facilitating the translation process	10	66
	Simultaneous translation	8	53
	Variety of options	8	53

Table 4: Academics' Views on the Advantages of Artificial Intelligence

Theme	Codes	f	%
Advantages of Artificial Intelligence	Support for translators	8	100
	Assessment/revision	8	100
	Developing the language skills	7	87,5
	Time and speed	7	87,5
	Flexibility in time and location	3	37,5
	Resource and language diversity	3	37,5
	Conscious and knowledge-based post-editing practices	2	25
	Reduction in translation costs	2	25
	Profitability in the business sector	1	12,5

When examining table 3 and 4; regarding the advantages of artificial intelligence, it is observed that the common and most frequently mentioned advantages by students and faculty members are time and speed, facilitating the translation process, and the ability to translate into different languages simultaneously. It is clear that both faculty members and a translation expert all identified the biggest advantage of artificial intelligence (AI) as support for translators.

An example of a student's opinion regarding this finding is provided below:
S11:

“...The greatest advantages of these systems are that they largely eliminate time constraints, simplify the translation process thanks to user-friendly interfaces, and alleviate the translator's burden through terminology databases and translation memories in written translation...”

Additionally, 10 students think that AI makes the translation process more practical and easier. Some students also mentioned that AI facilitates simultaneous translation of different texts or translations in different languages. Similarly, 8 students regarded the variety of options in terms of words and meanings as an advantage in translation. An example of a student's opinion regarding this finding is provided below:

S3:

“...I can say that time-saving is one of the advantages of AI in translation. If there were no AI translation systems, we could have spent hours looking up the meanings of words in dictionaries and encyclopaedias. At the same time, there is a lot of variety in terms of words and meanings...”

When Table 4 is analysed, it is clear that both faculty members and a translation expert all identified the biggest advantage of artificial intelligence (AI) as support for translators. When asked for further details regarding the nature of this support, the most frequently mentioned topics were post-translation revision and assessment, conscious and knowledge-based post-editing practices, resource and language diversity, and the development of language skills. However, unlike faculty members, students expressed concerns that AI would lead to regression rather than support in their translation and language skills (Table 5). Below are some example quotations related to these findings:

A2:

"On the other hand, the issues identified in machine translation of different types of texts can provide guidance in translation teaching, particularly in fostering foreign language/native language awareness, error detection and correction, and critical thinking skills in students."

A3:

"While professional translators often specialize in one or a few languages, popular systems like Google Translate, Yandex Translate, ChatGPT, DeepL, Reverso, ImTranslator, Systran, Webtran, Bing, Cambridge Dictionary, and PROMPT can translate texts into over a hundred languages, including even less common ones."

A8:

"We can roughly consider two types of advantages in using AI in translation. One is teaching or ensuring that neural machine translation benefits the translator based on the type of text in the course. The second is enhancing translation competency by evaluating the pros and cons of alternative translations offered by AI. Additionally, reinforcing students' foreign language skills through translation could be another general advantage."

Additionally, one faculty member and one expert noted that AI in translation results in cost reduction within the translation sector. In line with this, one expert also mentioned that the reduced need for highly specialized staff in the translation industry due to AI could be seen as a cost-saving benefit. This viewpoint may be considered a reason for students' professional concerns about the future use of AI in translation. According to the expert, AI in translation is an advantage for employers in the industry but a disadvantage for employees, from the students' perspective.

The views of students and faculty members regarding the challenges of artificial intelligence have been presented in Table 5 and Table 6.

Table 5: Students' Views on the Challenges of Artificial Intelligence

Theme	Codes	f	%
Challenges of AI	Causing laziness	10	66
	Decrease in human memory capacity	7	46
	Reduction in creativity and originality	7	46
	Insufficiency in cultural translations	6	40
	High error margin	5	33
	Diminished student-teacher relationship	5	33

Table 6: Academics' Views on the Challenges of Artificial Intelligence

Theme	Codes	f	%
Challenges of Artificial Intelligence	Insufficient transfer of cultural elements	7	87,5
	Insufficient emotional context	6	75
	Meaning shifts	5	62,5
	Challenges in controlling the education and teaching process	5	62,5
	Deficiencies in translating poetry and literary texts	5	62,5
	Inequality in education	3	37,5
	Decline in translation quality	2	25
	Time loss	2	25

When examining Table 5, a significant portion of students indicated that they believe the use of AI in translation makes them lazy. Similarly, some reported that their memory has weakened. Additionally, almost half of the students think that the use of AI leads to a decrease in human creativity and originality in translation. However, faculty members did not mention this among the disadvantages. The most frequently noted difficulty by faculty members is related to translation quality, which includes issues such as insufficient transfer of cultural elements,

insufficient emotional context, and meaning shifts.

An example of a student's opinion regarding the decrease in human memory capacity is below:
S1:

“...However, all these factors reduce or slow down human memory capacity. The fact that all the tasks that human translators used to perform are now done by AI negatively affects people's memory, which poses challenges for translators in areas like 'sight translation' or 'consecutive interpreting'...”

Some students also believe that AI has shortcomings in cultural contexts when it comes to translation. An example of a student's opinion regarding this finding is provided below:

S12:

“...It is essential to have translations done by a competent translator or editor, even in areas where specific guidelines are set, and to ensure that the message is accurately conveyed. It would be challenging to translate the meaning of sentences, idioms, etc., and AI would struggle with conveying emotions or cultural elements...”

Upon reviewing Table 6, it is evident that nearly all of the faculty members believe AI is most inadequate in conveying cultural elements in translation (87.5%). An example of a faculty member's view on this finding is as follows:

A2:

"Translation is not merely the transmission of “literal” meanings. Therefore, the context, intertextuality, cultural elements, the identity of the target audience, the type of register to use, the forms in which speech acts are carried out, the genre of the text, and the ability to transfer implicit meanings in accordance with culture, speech acts, and Relevance Theory are all critical in the success of translation, particularly in literary works where emotions and style must also be conveyed."

Faculty members also mentioned that AI is insufficient in conveying emotional context and often results in loss or degradation of meaning, particularly in literary translations, where incomplete and erroneous translations are frequently encountered. An example of this concern is shared below:

A1:

"Sometimes, a very meaningful word may be chosen from its possible meanings, which may not fit the context, or AI may mistakenly decide that the translation conveys the context adequately by omitting words. Furthermore, by maintaining the same order of words from the source language or switching their positions, AI can cause shifts in meaning in the translated text. Lastly, the need to review and correct a poor AI translation requires additional time, effort, and resources."

While some students believe AI reduces the teacher-student relationship (Table 5), faculty members also expressed concerns about challenges in managing teacher-student interactions and controlling the teaching-learning process when AI is involved. An example of this concern is as follows:

A6:

"As a disadvantage in education, particularly the use of AI to complete assignments, it can be mentioned that it clashes with traditional education and evaluation practices, as it is a challenging process to control. In this situation, it is necessary to plan education and assessment in line with the current technological processes."

While some academics embrace the development of AI use, others oppose it due to concerns that it might facilitate cheating or academic misconduct. Another noteworthy observation is that the speed factor in AI translations is seen as both an advantage and a disadvantage. Some faculty members view the need for human intervention in AI-generated translations as a time-consuming process, thus considering it a waste of time.

Findings Related to the Third Research Question

The opinions of students and academics regarding where artificial intelligence and human translators can converge and in what areas they can complement each other have been presented below.

Table 7: Students' Views on Human and AI Collaboration

Theme	Codes	f	%
Human and AI Collaboration	Combination of technique and content	15	100
	Revision	10	66
	Creativity and practicality	6	40
	Interpretation, cultural understanding, and technology	4	26

Table 8: Academics' Views on Human and AI Collaboration

Theme	Codes	f	%
Human and AI Collaboration	Quality Control and Editing	7	87,5
	Speed and Context/Content	4	50
	Education and Development	2	25
	Critical Thinking and Robot Power	1	12,5

When examining tables 7 and 8, it is evident that both students and faculty members believe in the collaboration between artificial intelligence and human translators. In particular, they express opinions regarding the combination of robotic power and human qualities.

All students believe that the content and cultural context should be provided by human effort, while all necessary support from a technical/technological perspective should be provided by AI. Some student opinions regarding this finding are as follows:

S1:

"...The combination of human creativity, vision, emotional development, and their reflections in fields like science and art, along with the equipped platforms provided by AI, can enhance the versatility and completion speed of science-art projects..."

S7:

"...While people lead in interpretation and explanation, tasks such as designing the translated book (in accordance with given guidelines), typesetting, and organizing the text can be handled by AI..."



Some students also believe that AI support should be utilized in terms of creativity and practicality in technical matters. They think that the combination of human creativity and machine-driven speed can yield powerful results. Some student opinions regarding this finding are as follows:

S9:

"...AI is weak in emotional reasoning or adopting a culture. However, compared to these, it can reach accurate and precise information quickly and present it. The combination of human creativity and emotionality with the capabilities of AI can be beneficial..."

S2:

"...the use of such low-quality or misleading translations, especially on international platforms, can lead to issues for countries. On the other hand, if a translator is aware of where, how, and to what extent to use Artificial Intelligence, this can result in producing high-quality translations and saving time..."

Based on these findings, it is evident that students are aware of the power and beneficial aspects of artificial intelligence that should be utilized. It can also be considered that they need guidance in integrating the advantages of artificial intelligence with human translators' qualities, such as creativity and critical thinking. Likewise, nearly all of the faculty members believe that AI can provide support in enhancing and editing translations made by human translators. An example of this view is provided below:

"...In fact, AI technologies are directly dependent on the human factor. At this point, it is impossible to think of AI translation technologies separately from the human factor! First of all, in order for these translation technologies to yield good results and produce high-quality translations, human experts constantly develop and refine the rules. The accuracy of the translation depends on how deeply linguists examine language nuances for the translator using translation technologies and how up-to-date the database is. The process requires high qualifications and high human resource costs..."

Therefore, it can be said that both students and faculty members agree that AI and human translators are inseparable and complementary elements. Additionally, in parallel with the students' views, faculty members believe that emotional context and cultural elements should remain under the control of human translators, but AI should be integrated to save time and enhance speed. They also believe that human translators can provide feedback to train AI translation systems, improving their cultural understanding and contextual accuracy. Finally, one faculty member thinks that by combining human translators' higher-level thinking skills with the technological power of AI, better and stronger results can be achieved. Some faculty members' views on where AI and human translators can meet are provided below:

A4:

"...AI translation programs can quickly translate the first draft of a text, saving time. Human translators can then review, edit, and fine-tune the draft. Human translators can perform quality control and editing on AI-generated translations to improve the accuracy and naturalness of the text. Human translators can also provide feedback to train AI translation systems and improve their cultural understanding and contextual accuracy..."

A5:

"...The shortcomings of AI in translation lie in the transfer of cultural elements, the creation/transfer of imagery, and the transfer of emotional context, and in making choices within this context. Therefore, there are certain types of texts where AI cannot perform adequately. Literary translation is an example of this. Here, human translators must

intervene during the review process to establish the cultural context and ensure that other translator choices align with this context, thereby combining the strengths of both..."

Findings Related to the Fourth Research Question

The educational suggestions of students and faculty members regarding artificial intelligence and the field of translation have been presented below.

Table 9: Students' Suggestions

Theme	Codes	f	%
Suggestions	Should not be included in education	9	60
	Research projects	7	46
	Addition of translation and artificial intelligence courses	6	40
	Should be integrated into professional life	6	40
	Progress alongside technology	5	33

Table 10: Faculty Members' Suggestions

Theme	Codes	f	%
Suggestions	Artificial intelligence and translator collaboration	5	62,5
	Should be integrated into lessons	4	50
	Developing programs in parallel with emerging technologies	4	50
	Using AI as a tool for translation	3	37,5
	Interactive projects	3	37,5
	Training on the correct use of ai translation systems	2	25

When examining tables 9 and 10, it is observed that the only differing opinion between faculty members and students regarding their suggestions is related to the integration of artificial intelligence into the curriculum. The majority of students expressed that AI should not be integrated into undergraduate education. This finding could explain the results related to the first and second research questions. Students are opposed to its inclusion in education as they fear it may lead to professional concerns in the future and diminish their originality and creativity in classes. Below are some student opinions reflecting this finding:

S3:

"In my opinion, these systems should not be further incorporated into life. Including them in education would make it harder for students to learn. They would get used to readily available information and wouldn't put effort into self-development. This would prepare them for laziness rather than the profession."

S5:

"Although some of my current courses in my department focus on using technology in translation, I believe it should not be overdone. It can be used for making necessary corrections, seeing different translation suggestions, and saving time, but completely handing over the profession to AI is critical. I am one of those who believe that fully handing control to machines would disconnect the translated text from its context and essence."

Additionally, students suggested that AI-related translation training be included in research projects and their professional lives. Lastly, five students recommended that courses should progress alongside technology and mentioned that non-technology-based courses might be phased out. Below is an example of a student opinion regarding this finding:



S14:

"For example, it could be beneficial to add courses to translation and interpreting undergraduate programs—or associate degree programs in this field—where good practices on how translators can use AI-supported translation programs more effectively are shared."

Despite these concerns, there is a high expectation that AI will become increasingly popular in academia, and integrating these tools into the curriculum is suggested.

Beside these, nearly all faculty members believe that artificial intelligence (AI) and humans should not be separated but should work in collaboration moving forward. Additionally, three faculty members emphasized the importance of conducting AI-related projects with students. Faculty members also agree that both instructors and students should be trained on the correct use of AI translation systems. They highlight the need to involve students in the process of creating guidelines for the positive use of AI. A sample opinion related to this finding is shared below:

A2:

"...It is obvious that resisting technological progress will not contribute to education. Therefore, all translation departments should review their curricula and add necessary courses (courses related to the use of AI translation technologies + Editing courses) and even change the content of these courses (assigning translation projects as homework no longer makes sense)..."

Faculty members expressed strong support for including AI-related courses in translation programs, with many emphasizing the need for training on AI system usage. One participant noted: A sample quotation related to this finding is shared below:

A1:

"...Of course, it should be included in education. Educational curricula should be prepared and developed in parallel with emerging technologies. When comparing the curricula of Translation Studies departments in universities in Türkiye today, differences are observed in the distribution of AI-supported courses. However, as mentioned above, the important thing is not to leave the translation work to AI, but to teach how to achieve an accurate and consistent translation product by using the capabilities of AI. For this, I believe it is necessary to provide training to both us and students from experts as soon as possible..."

Discussion and Conclusion

This study, which examined the views of students and faculty members on the use of AI tools in translation, can be grouped into views on the future of AI, its future of translation profession, advantages and disadvantages, the partnership between humans and AI, and suggestions.

When examining the findings based on students' views, it was noted that students perceive the use of AI in translation as both a threat and an opportunity for the future (Table 1). Jeffrey's (2020) study also revealed conflicting opinions among university students. Even students with a high level of knowledge about AI programs and those who believe AI could benefit them expressed concerns about its potential negative impact on their future careers. This suggests that students feel uncertain about AI, fearing that it might replace their professions and lead to

employment challenges in the future. Despite their concerns, students acknowledged the advantages of AI. As shown in Table 3, all students agreed that the most significant advantage of using AI in translation is time savings. Additionally, almost all students noted that AI accelerates the translation process significantly. This finding aligns with Zhang's (2023) study, where translation students agreed that the primary benefits of machine translation are time, speed, and practicality.

Regarding the challenges of AI, a large portion of students believed that using AI in translation makes them less diligent. Some also mentioned that it weakens their memory. Furthermore, nearly half of the students expressed that AI usage in translation diminishes human creativity and originality. Similarly, Zhang's (2023) study revealed that second-year translation students felt that machine translation and AI limit their creativity during their education and prevent them from producing better translations because they tend to rely solely on machines. Consequently, these students expressed a desire to learn translation independently of machines.

Another disadvantage highlighted by students was AI's inadequacy in cultural contexts. Zhang's (2023) study also emphasized this issue, with students criticizing AI translations for being insufficient in conveying cultural nuances, context, and emotions. Additionally, students pointed out AI's higher error margin compared to humans and its potential to reduce teacher-student interaction during the translation process. Similar concerns were observed in Chan and Hu's (2023) study, where students voiced worries about overdependence on AI, its impact on the value of university education, and issues related to accuracy, transparency, privacy, and ethics.

Faculty members unanimously agreed that AI could not replace human translators in the future, a view consistent with students' perspectives (Table 2). Faculty members also believed that AI introduces new roles to the translation profession. Taveres et al.'s (2023) study with translation experts similarly concluded that the roles of human professionals might evolve to focus on more complex or specialized tasks, while routine or repetitive tasks are delegated to AI tools. However, tasks requiring creative writing, cultural translation, and interpretation are less suitable for automation due to their reliance on human judgment and contextual understanding.

Some faculty members shared concerns with students regarding the reduction of teacher-student interaction caused by AI (Table 6). Additionally, they noted difficulties in controlling teaching and learning processes due to AI usage. While some faculty members embraced advancements in AI, others were concerned about its potential to facilitate academic misconduct, such as cheating. Proponents of AI argued that integrating it into academia with proper policies for academic integrity would equip students with essential skills and ethical perspectives for working in an AI-driven environment (Liebrenz et al., 2023). Yu (2023) similarly emphasized the importance of educating students on the effective use of generative AI (GAI) technologies rather than banning them, highlighting their relevance to career preparation.

Both students and faculty members agreed that emotional and cultural contexts should be handled by human translators, while AI should be utilized for speed and time-saving purposes. The faculty also suggested that human translators could provide feedback to train AI systems, enhancing their cultural understanding and contextual accuracy.

Faculty emphasized the necessity of collaboration between humans and AI in translation. They proposed conducting joint projects with students focused on AI, offering training for both



faculty and students on the proper use of AI translation systems. Johnston et al. (2024) similarly recommended that universities support students in developing skills for the productive and effective use of AI technologies. Their study also suggested involving students in creating guidelines for the positive utilization of AI, as students were already eager to explore ways to benefit from these technologies.

Students proposed that AI should not be integrated into undergraduate translation programs due to concerns about job security and the potential loss of creativity and originality in their coursework. Instead, they suggested incorporating AI training into research projects and professional development initiatives.

Faculty members suggested that universities should implement training programs to teach students and faculty how to use AI translation tools effectively and ethically. They also emphasized the importance of blending human creativity and critical thinking with AI's capabilities to achieve optimal results in translation tasks. Kamoun et al. (2024), in a similar study, gathered views from faculty members and students, revealing that faculty members have a more negative perception and greater concerns about AI programs. The reason for this was emphasized as the lack of necessary training and resources for faculty members to integrate AI into their pedagogical practices. Consequently, similarly to this study, it can be said that faculty members approach AI more cautiously because they have not yet had access to sufficient training resources, and they have expressed a need for in-service training.

Suggestions

Based on the results obtained from this study, AI technologies could be integrated into translation programs to enhance students' professional competence and prepare them for the workforce. Regular in-service training programs should be organized for faculty members to ensure they are well-informed. Further research should be conducted on the effects of AI technologies on translation studies. These studies will contribute to the development of the field and lay the groundwork for the creation of new teaching methods.

Conflict of Interest

There are no conflicts of interest regarding the publication of this article.

Informed Consent

Participants were informed about the study's objectives, procedures, and potential risks. They were informed that participation was voluntary and that they could withdraw from the study at any point if they felt reluctant without any consequences. All personal information was anonymized to protect participants' confidentiality.

Data Availability

The data are not publicly available due to privacy or ethical restrictions.

References

Ali, Z. (2020) Artificial intelligence (AI): A review of its uses in language teaching and learning. In IOP Conference Series: Materials Science and Engineering (Vol. 769, No. 1, p. 012043). IOP Publishing.

- Alimen, N. (2023). From machine translation to chatbot translation: An experimental study with ChatGPT. *RumeliDE Journal of Language and Literature Studies* (36) 1532-1548. <https://doi.org/10.29000/rumelide.1369589>
- Bailey, J. (2023). AI in education: The leap into a new era of machine intelligence carries risks and challenges, but also plenty of promise. *Education Next*, 23(4), 28-35.
- Belda-Medina, J., & Calvo-Ferrer, J. R. (2022). Using Chatbots as AI Conversational Partners in Language Learning. *Applied Sciences*, 12(17), 8427. <https://doi.org/10.3390/app12178427>
- Bo, L. (2023). Ethical issues for literary translation in the era of artificial intelligence. *Babel*, 69(4), 529-545. <https://doi.org/10.1075/babel.00334.li>
- Canfora, C., & Ottmann, A. (2020). Risks in neural machine translation. *Translation Spaces*, 9(1), 58-77. <https://doi.org/10.1075/ts.00021.can>
- Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: Perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education*, 20(43). <https://doi.org/10.1186/s41239-023-00411-8>
- Chen, L., Chen, P., & Lin, Z. (2020). Artificial intelligence in education: A review. *IEEE Access*, 8, 75264-75278. <https://doi.org/10.1109/ACCESS.2020.2988510>
- Drugan, J., & Tipton, R. (2017). Translation, ethics and social responsibility. *The Translator*, 23(2), 119-125. <https://doi.org/10.1080/13556509.2017.1327008>
- Jain, K.K.; Raghuram, J.N.V. (2024). Gen-AI integration in higher education: Predicting intentions using SEMANN approach. *Education and Information Technologies*, 29(13), 1-41. [10.1007/s10639-024-12506-4](https://doi.org/10.1007/s10639-024-12506-4)
- Jeffrey, T. (2020). Understanding college student perceptions of artificial intelligence. *Systemics, Cybernetics and Informatics*, 18(2), 8-13.
- Johnston, H., Wells, R. F., Shanks, E. M., Boey, T., & Parsons, B. N. (2024). Student perspectives on the use of generative artificial intelligence technologies in higher education. *International Journal for Educational Integrity*, 20(2). <https://doi.org/10.1007/s40979-024-00149-4>
- Kamoun, F., El Ayeb, W., Jabari, I., Sifi, S., & Iqbal, F. (2024). Exploring students' and faculty's knowledge, attitudes, and perceptions towards ChatGPT: A cross-sectional empirical study. *Journal of Information Technology Education: Research*, 23, Article 4. <https://doi.org/10.28945/5239>
- Kaptan, S. (1998). *Scientific Research and Statistical Techniques*. Tekişık Web Publishing, Ankara.
- Kozan, O. (2023). Yapay Zekâ Çağında Çevirmen Olmak Derlem Tabanlı İnsan ve Makine Çevirisi İncelemeleri (Türkçe-Rusça Örneğinde) [Being a Translator in the Age of Artificial Intelligence] Çanakkale: Paradigma Academy Publishing.
- Liebrenz, M., Schleifer, R., Buadze, A., Bhugra, D., & Smith, A. (2023). Generating scholarly content with ChatGPT: ethical challenges for medical publishing. *The Lancet. Digital health*, 5(3), e105-e106. [https://doi.org/10.1016/S2589-7500\(23\)00019-5](https://doi.org/10.1016/S2589-7500(23)00019-5)
- Niederman, F., & Baker, E. W. (2023). Ethics and AI issues: Old container with new wine? *Information Systems Frontiers*, 25(1), 9-28. DOI: [10.1007/s10796-022-10305-1](https://doi.org/10.1007/s10796-022-10305-1).
- Odacıoğlu, C. (2022). A Course Proposal entitled "Information Technologies and Tools in Translation" in the Framework of the Reflections of the Digital Age on Translation and Interpreting Departments *Turkish Studies - Language*, 17(4), 1367-1376. <https://dx.doi.org/10.7827/TurkishStudies.62915>
- Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, 6(2), 1-5. DOI: [10.4172/2162-6359.1000403](https://doi.org/10.4172/2162-6359.1000403)

- Tavares, C., Oliveira, L., Duarte, P., & da Silva, M. M. (2023). Artificial intelligence: A blessing or a threat for language service providers in Portugal. *Informatics*, 10(4), 81. <https://doi.org/10.3390/informatics10040081>
- Yang, C. (2022, August). The Application of Artificial Intelligence in Translation Teaching. In *Proceedings of the 4th International Conference on Intelligent Science and Technology*, 56-60 <https://doi.org/10.1145/3568923.3568933>
- Yıldırım, A., & Şimşek, H. (2018). *Qualitative research methods in the social sciences* (11th ed.). Seçkin Publishing.
- Yu, H. (2023). Reflection on whether ChatGPT should be banned by academia from the perspective of education and teaching. *Frontiers in Psychology*, 14, 1181712. <https://doi.org/10.3389/fpsyg.2023.1181712>
- Zawacki-Richter, O., Marin, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education: Where are the educators? *International Journal of Educational Technology in Higher Education*, 16(1), 39. <https://doi.org/10.1186/s41239-019-0171-0>
- Zhang, J. (2023). Exploring undergraduate translation students' perceptions towards machine translation: A qualitative questionnaire survey. In *Proceedings of Machine Translation Summit XIX, Vol. 2: Users Track*, Macau SAR, China: Asia-Pacific Association for Machine Translation.
- Zouhaier, S. (2023). The impact of artificial intelligence on higher education: An empirical study. *European Journal of Educational Sciences*, 10(1), 17. <https://doi.org/10.19044/ejes.v10no1a17>