Tarbiat Modares University

The International Journal of Humanities

Received: 2025/10/30
Accepted: 2026/07/19
Published: 2026/09/22

RESEARCH ARTICLE

Embracing AI in Higher Education: Iranian Lecturers' Attitudes toward AI Integration in Teaching English and Turkish as Foreign Languages

Mousa Rahimi[1], **Shiva Azizpour**[2*]

1. Associate Professor, Department of Turkish Language and Literature, Allameh Tabataba'i University, Tehran, Iran. Email: musarahimi@atu.ac.ir

2. Lecturer, Department of English Language and Literature, Allameh Tabataba'i University, Tehran, Iran.
*. Corresponding Author. Email: sh.azizpour@urmia.ac.ir

Abstract

The profound technological revolution led by Artificial Intelligence (AI) is transforming language education and traditional teaching paradigms. This study explored Iranian university lecturers' attitudes toward AI integration in teaching English and Turkish as foreign languages, addressing a critical gap in understanding culturally nuanced challenges and transformative benefits. Nineteen lecturers from Allameh Tabataba'I University, Tehran, Iran, aged 32-50, holding Ph.D. degrees in Applied Linguistics, English Language and Literature, or Turkish Language and Literature participated in the study. Data was collected through semi-structured interviews and analyzed to reveal six major themes: attitudes toward AI integration; pedagogical innovation and teaching practices; organizational and infrastructural dynamics; ethical and professional considerations; vision for the future, innovation potential, and recommendations; and challenges and barriers in AI integration. The findings indicated a progression from initial skepticism to cautious optimism, as AI facilitates personalized feedback, real-time error correction, and adaptive lesson planning. Participants acknowledged time-saving advantages and improved instructional strategies; however, concerns emerged regarding ethical issues, the preservation of human interaction, technical issues, infrastructural inadequacies, and potential overreliance on automation. Pedagogical implications highlight the need for ongoing professional development, enhanced faculty support, and rigorous ethical protections.

Keywords: AI Integration, Artificial Intelligence, Higher Education, Language Education, Lecturers' Attitudes

How to cite this article: Rahimi, M. & Azizpour, S. (2026). Embracing AI in Higher Education: Iranian Lecturers' Attitudes toward AI Integration in Teaching English and Turkish as Foreign Languages. *The International Journal of Humanities* 33(3): 58–80.

Copyright@ 2026, TMU Press. This open-access article is published under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License which permits Share (copy and redistribute the material in any medium or format) and Adapt (remix, transform, and build upon the material) under the Attribution-NonCommercial terms.

1- Introduction

Although the use of Artificial Intelligence (AI) dates to the 1950s, its recent resurgence has positioned it as a transformative force in both industry and higher education, particularly through models such as ChatGPT that are reshaping teaching and assessment practices (Pokrivcakova, 2023). This technological revolution is reconceptualizing traditional paradigms of teaching and learning, with AI integration increasingly regarded as essential for enhancing instructional practices and enriching learning environments (Celik, 2013).

AI, defined as the capacity of digital computers or computer-controlled systems to carry out tasks typically requiring human cognition, contributes to dynamic learning environments (Chauhan, 2017; Waluyo et al., 2025). By fostering personalized training, adaptable teaching methods, and inclusive management techniques, AI equips learners with the skills required to thrive in a technologically advanced global society (Pokrivcakova, 2019). In the realm of education, particularly within foreign language instruction settings, AI introduces flexible, data-driven methods that have the potential to fundamentally transform teaching and learning processes (An et al., 2023). This technological advancement not only mirrors industrial shifts but also signals the advent of innovative teaching methodologies (An et al., 2023; Jordan & Mitchell, 2015; Pokrivcakova, 2019). Meanwhile, the growth of e-learning, driven by digital devices, shifting pedagogical paradigms, and technological advancement, has established it as a vital strategy for improving higher education outcomes (Chalak & Mair, 2024). The integration of laptops, tablets, and smartphones in classrooms has reinforced this trend, while the capacity of digital technologies to transform traditional practices and foster strong online learning communities continues to attract scholarly interest (Chalak & Mair, 2024). Despite its recognized potential, AI integration in language classrooms remains limited, partly due to insufficient technological proficiency among language educators (Celik et al., 2025; Kessler, 2016).

Within the domain of EFL education, the imperative for integrating technology is underscored by its association with enhanced teacher cooperation and positive instructional attitudes. Over the past decade, educators have increasingly been expected to incorporate technological tools into their practices, particularly in language education, where technological proficiency is thought to be essential to foster effective teacher-student interactions (Chauhan, 2017; Raygan & Moradkhani, 2022).

Research on teachers' and students' attitudes toward AI in language learning reveals a nuanced landscape characterized by both enthusiasm and circumspection (Karataş et al., 2024). Although AI is praised for its potential to provide constructive feedback and enhance language proficiency, its integration into teaching practices continues to stimulate debate among educators. This conflicting perception implies that, despite the acknowledged potential of AI, meaningful and effective technology integration requires meticulous consideration and further empirical investigation (Karataş et al., 2024).

This study emerges from an urgent need to address an underexplored area within the existing literature. Although considerable scholarly attention has been devoted to technological

innovations and their transformative potential in language education, there is a notable scarcity of scholarly research examining Iranian university lecturers' attitudes toward AI integration in teaching English and Turkish as foreign languages. The ongoing challenge of equipping teachers with the required technological competencies puts under the spotlight the significance of this inquiry, particularly as traditional teacher development programs have not consistently offered sufficient training in digital methodologies. This gap not only reflects the broader challenges encountered by higher education institutions in adapting to rapid technological advancements but also underscores the conflicts between traditional teaching practices and emerging AI-driven methods. The significance of this study lies in its capacity to provide a thorough and contextualized understanding of how Iranian university lecturers perceive and interact with AI in language instruction. By delving deeply into their experiences and the multifaceted challenges they encounter, this study aims to shed light on the intricate interplay between conventional teaching paradigms and innovative, AI-enhanced strategies. The study foregrounds the gap between the theoretical promise for rapid, efficient technology integration and the real-world challenges faced by educators, as well as the notable research gap concerning the specific cultural and organizational constraints within Iranian higher education. The objectives of this study are to critically examine the attitudes of Iranian university lecturers toward AI integration, to uncover the specific barriers they encounter in implementing AI-based teaching methods, and to develop a nuanced understanding that may inform future research and the development of rigorously designed faculty-support frameworks. Ultimately, this study significantly contributes to the evolving discourse on technology-driven pedagogy by providing robust insights into how AI might be utilized to enhance instructional quality and foster innovative educational practices in language teaching. To this end, the researchers formulated the following research question to guide the study: What attitudes do Iranian lecturers hold toward AI integration in teaching English and Turkish as foreign languages in higher education?

2. Literature Review

2.1. Theoretical Framework

This study subscribes to the Extended Technology Acceptance Model (Extended TAM) as its theoretical framework, a thorough model proposed by Venkatesh and Davis (2000) to comprehend how individuals accept and use technology. Building on the original TAM's focus on perceived usefulness and perceived ease of use as critical determinants of attitude and intention, the Extended TAM incorporates subjective norms, which refer to peer and institutional expectations; facilitating conditions, which indicate the availability of technical and organizational support; and technological self-efficacy, which reflects belief in one's ability to use technology effectively (Venkatesh & Davis, 2000). In the context of Iranian higher education, where conventional teaching methods coexist with the adoption of emerging digital tools, this framework is particularly well-suited. Perceived usefulness allows exploration of how AI tools are perceived as beneficial for teaching English and Turkish through enhanced engagement, simplified lesson planning, and enhanced outcomes, while perceived ease of use addresses practical challenges in AI integration, evaluating whether its design and interface align with university lecturers' expectations and skills.

2.2. The Emergence of AI and Its Integration in Educational Contexts

The rapid advancement of technology and the widespread usage of digital devices have drastically changed teaching contexts across the world (Chalak & Mair, 2025). In this regard, e-learning, which is the deliberate use of digital tools to develop teaching and learning processes, has become a critical component of higher education, leading to the evolution of traditional pedagogical practices into more technologically advanced, interactive methods (Chalak & Mair, 2025). Alongside these advancements, AI has attracted considerable attention from scholars as a significant computational advancement capable of emulating human thought processes: It processes data and carries out autonomous tasks that support a range of academic functions (Fidan & Kasimi, 2023). AI uses complex algorithms to enable machines to carry out tasks that are similar to human reasoning (Karsenti, 2019). Accordingly, incorporating AI into education offers tailored learning advice and adaptive material distribution, but it also means that educators are expected to acquire new skills to utilize its full potential (Klimova et al., 2023; Varsamidou, 2024; Vera, 2023).

The dualistic nature of integrating AI into educational settings is highlighted by recent discussions: from one perspective, AI systems allow for the creation, customization, and personalized delivery of digital content through ongoing data analysis; on the other hand, their transformative potential is still restricted by limited integration and a persistent need for professional development among educators (Aydın, 2024; Filiz et al., 2025). Within the specific domain of foreign language education, AI has begun to play a significant role by enhancing individualized instruction and enriched language assessments, which contribute to improved proficiency and learner engagement. Empirical studies in the foreign language context document both successes and challenges as educators experiment with AI-driven tools that bridge individual learning preferences with new pedagogical approaches (Aydın, 2024). Despite these developments, the adoption of AI in language instruction continues to provoke debate over effective integration and encounters resistance from some practitioners (Fidan & Kasimi, 2023; Yılmaz Virlan & Tomak, 2025).

2.3. University Lecturers' Attitudes Toward AI Integration in Higher Education

University lecturers' attitudes toward AI integration are crucial determinants of its long-term success in academic settings. Concerns about academic integrity, job security, and the loss of the human element in pedagogy coexist with enthusiasm for AI's capability to expedite instruction and personalize learning in university lecturers' attitudes toward its integration in higher education. This ambivalence is primarily influenced by previous digital experience and institutional support (Kianinezhad, 2023).

Teachers possessing advanced competencies in educational information and communication technologies are more inclined to adopt AI tools enthusiastically, while less-experienced teachers are more likely to be resistant (Haseski, 2019; Kianinezhad, 2023; Mirzaeian & Oskoui, 2022).

2.4. Empirical Studies on AI Integration in Higher Education

Empirical studies demonstrate a discrepancy between lecturers viewing AI as a force for innovation and those identifying it as a danger to their autonomy and the integrity of the curriculum; critical concerns include data confidentiality, ethical issues, and curriculum coherence (Filiz et al., 2025). Despite these concerns, an eye-catching number of educators indicate willingness to use AI technologies as long as they are given clear instructions, ongoing professional development opportunities, and technological support (Aydın, 2024; Filiz et al., 2025). Further, Raygan and Moradkhani (2024) pointed out that organized training settings foster more favorable attitudes and highlighted the necessity of policies that support the adoption of AI gradually and contextually.

Research on the integration of AI into higher education has taken many forms, from large-scale surveys and controlled experiments to in-depth case studies and long-term analyses. For instance, Khajavi and Ezhdehakosh (2025) used a mixed-methods approach to demonstrate clear, measurable gains in learner performance, teaching efficiency, and individualized learning outcomes when AI tools such as neural machine translation and chatbots were incorporated into instruction. Longitudinal studies further suggest that initial reluctance and gaps in digital literacy tend to fade with sustained training and strong institutional backing. These findings put under the spotlight the significance of institutional readiness, dependable ICT infrastructure, and curriculum alignment in unlocking the full potential of AI in education (Khajavi & Ezhdehakosh, 2025).

Furthermore, beyond the direct use of AI, the broader e-learning environment continues to evolve through a range of emerging technologies and teaching methods aimed at enhancing engagement and learning outcomes (Lima et al., 2020). Studies have revealed that tools such as Virtual Reality (VR) and Augmented Reality (AR) can create highly immersive learning experiences, while approaches like international virtual teamwork, gamification, and personalized instruction have been found to enhance both motivation and digital skills (Hidayat et al., 2023; Lima et al., 2020; Panahandeh & Chalak, 2022). Notably, Jafary et al. (2024) stated that lasting progress in lifelong learning and teacher development depends not just on adopting new tools but on pairing them with strong pedagogical design and targeted professional development. In other words, technological innovation is most effective when it is grounded in solid teaching practices (Jafary et al., 2024).

Rapti and Panagiotidis (2024) examined 116 foreign language educators' attitudes towards the integration of AI in the context of the Greek public and private primary and secondary educational system. They pointed out that the latest possibilities presented by AI require innovative and alternative methodological approaches to be integrated into the foreign language learning process and explored how differentiated instruction and flipped classroom models can be enhanced by AI. In another study, Kemp et al. (2024) extended TAM to evaluate educational technologies in higher education, focusing on virtual classrooms. They introduced a new construct called comfort and well-being, received a total of 427 valid responses on a 5-point Likert scale from university students, and used exploratory factor analysis, confirmatory

factor analysis and structural equation modeling to analyze the data. The model accounted for 78% of the variance of behavioral intent, with comfort and well-being demonstrating the strongest influence. Cognitive engagement, access, and convenience influenced perceived usefulness, and system attributes and self-efficacy influenced perceived ease of use. Feedback, instructor practice, and class interaction and communication were not significant as educational constructs for this cohort. Finally, they proposed a final Extended Educational Technology Acceptance Model (EETAM) for further use and testing.

Recently, Ma et al. (2025) investigated user adoption through the lens of the TAM using a convenience sampling method and surveyed 784 Chinese ChatGPT users. Their study revealed that there were positive relationships among perceived usefulness, perceived ease of use, behavioral intention, and use behavior. Besides, the relationship between behavioral intention and use behavior was observed to be stronger among urban users relative to their rural counterparts and the relationship between behavioral intention and use behavior exhibited greater strength among females compared to males. Further, the relationships between perceived ease of use and perceived usefulness, perceived ease of use and behavioral intention, and behavioral intention and use behavior were found to be stronger among users with higher academic backgrounds compared to those with lower academic backgrounds. It is worth noting that their results provided critical insights to advance the practical application of AI, highlighting the need for enhanced usability and ease of use.

In a very recent mixed-methods study, Cennetkusu (2026) examined EFL teachers' attitudes toward AI integration in Turkey. Quantitative data were collected using a validated multidimensional attitude scale conceptually informed by the Unified Theory of Acceptance and Use of Technology (UTAUT), complemented by qualitative interviews that explored teachers' pedagogical reasoning and ethical considerations. Survey findings revealed positive attitudes toward AI across all measured dimensions and across demographic and contextual variables. However, qualitative data indicated that this openness is accompanied by principled caution, including concerns about ethical issues, overreliance on AI, and the preservation of teacher agency. By integrating robust quantitative results with in-depth qualitative findings, the study enhanced understanding of AI acceptance in language teaching as a reflective and professionally mediated process rather than a purely technological one.

This overview of the literature summarizes a wide range of studies on the integration of AI in higher education, covering theoretical foundations, empirical data, and technical developments that highlight both obstacles and transformative opportunities.

2.5. Research Objectives

The present study aims to investigate university lecturers' attitudes toward the integration of AI in teaching English and Turkish as foreign languages in Iran. Moreover, it intends to elucidate the challenges associated with implementing AI-based teaching techniques while developing an in-depth understanding that can guide future research and underpin evidence-based, context-specific pedagogical strategies. Thus, the study seeks to make a substantial contribution to the evolving discourse on technology-driven pedagogy by providing insights into how AI can

enhance the quality of instruction and foster innovative approaches to teaching English and Turkish as foreign languages in higher education.

3. Methods

3.1. Participants and Context of the Study

This study recruited a total of 19 university lecturers from Allameh Tabataba'i University in Tehran, Iran, using convenience sampling. The sample comprised fifteen female and four male lecturers aged 32 to 50 (Mage = 41), with 8 to 25 years of teaching experience. All participants held Ph.D. degrees in Applied Linguistics, English Language and Literature, or Turkish Language and Literature. Table 1 provides a detailed overview of the participants' demographic information. The study was conducted during the Winter-Spring 2025 semester in the Department of Foreign Languages at Allameh Tabataba'i University, Tehran, Iran. In order to maintain anonymity, the names of the lecturers have not been disclosed.

Table 1. Demographic Information of the Participants.

Participants	Academic Degree	Major	Teaching Experience
1. University Lecturer (UL1)	Ph.D.	Applied Linguistics (TEFL)	25
2. University Lecturer (UL2)	Ph.D.	Applied Linguistics (TEFL)	20
3. University Lecturer (UL3)	Ph.D.	Applied Linguistics (TEFL)	19
4. University Lecturer (UL4)	Ph.D.	Applied Linguistics (TEFL)	15
5. University Lecturer (UL5)	Ph.D.	Applied Linguistics (TEFL)	13
6. University Lecturer (UL6)	Ph.D.	Applied Linguistics (TEFL)	13
7. University Lecturer (UL7)	Ph.D.	Applied Linguistics (TEFL)	11
8. University Lecturer (UL8)	Ph.D.	Applied Linguistics (TEFL)	10
9. University Lecturer (UL9)	Ph.D.	Applied Linguistics (TEFL)	10
10. University Lecturer (UL10)	Ph.D.	Applied Linguistics (TEFL)	8
11. University Lecturer (UL11)	Ph.D.	Applied Linguistics (TEFL)	7
12. University Lecturer (UL12)	Ph.D.	English Language and Literature	13
13. University Lecturer (UL13)	Ph.D.	English Language and Literature	10
14. University Lecturer (UL14)	Ph.D.	English Language and Literature	10
15. University Lecturer (UL15)	Ph.D.	Turkish Language and Literature	21
16. University Lecturer (UL16)	Ph.D.	Turkish Language and Literature	20
17. University Lecturer (UL17)	Ph.D.	Turkish Language and Literature	19

18. University Lecturer (UL18)	Ph.D.	Turkish Literature	Language	and	10
19. University Lecturer (UL19)	Ph.D.	Turkish Literature	Language	and	8

3.2. Instruments

Semi-structured interviews, each lasting between 50 and 90 minutes, were conducted face-to-face by the researchers. The initial items in the interview protocol were developed through an extensive review of the related literature and informed by the researchers' expertise and prior experiences in integrating AI in higher education. In addition, a preliminary pilot group interview was conducted with three lecturers to test the interview questions and revise them in light of the suggestions and comments obtained. Further validation of the interview protocol was obtained by seeking critical feedback from three associate professors of Applied Linguistics. The interviews applied an emergent methodology to categorize the interviewees' value-laden comments into six major themes: attitudes toward AI integration, with three subthemes of *general attitudes and awareness, specific AI tools utilized,* and *perceived benefits*; pedagogical innovation and teaching practices, with two subthemes of *transforming teaching methodologies* and *supporting students: establishing rapport and enhancing engagement*; organizational and infrastructural dynamics, with two subthemes of *faculty support and resources* and *professional development and training*; ethical and professional considerations, with two subthemes of *ethical concerns and data privacy* and *the impact on professional identity and autonomy*; vision for the future, innovation potential, and recommendations, with two subthemes of *the future evolution of teaching and learning* and *university lecturers' suggestions and recommendations*; and challenges and barriers in AI integration, with two subthemes of *general challenges in adopting AI* and *overcoming support issues: balancing AI and human connection* (see the Appendix for the complete interview protocol). Trustworthiness was a central concern throughout this study. To ensure credibility, the researchers engaged in peer review and critically examined the study for potential bias and integrity issues. Member checking was also conducted by reconsulting the interviewees to confirm the accuracy of their responses. Moreover, a code–recode strategy was employed as an intra-rater reliability measure: initial coding was set aside and then recoded by the researchers.

3.3. Procedure and Data Analysis

Given that the study is attitudinal in scope and nature, a qualitative research framework was applied to collect data, explore participants' attitudes, and address the research question. Consistent with many qualitative investigations that employ emergent methodologies to inductively and deductively derive theoretical insights from the data (Denzin & Lincoln, 2000), this study focused on investigating the attitudes of Iranian university lecturers regarding AI integration in teaching English and Turkish as foreign languages. To this end, the researchers followed the procedural guidelines proposed by Coffey and Atkinson (1996). Additionally, the approach was supplemented by an in-depth content analysis in which interview transcripts were

rigorously examined and emergent concepts were systematically coded. In line with Harwood et al. (2009), face-to-face interviews were conducted to explore the lecturers' attitudes toward AI integration in higher education.

The researchers developed a set of interview questions that adhered to a semi-structured protocol, intentionally employing open-ended questions to facilitate a dynamic, discussion-based format rather than a rigid question-and-answer exchange. The interviews, conducted in person, lasted between 50 and 90 minutes, were audio-recorded, and then transcribed verbatim by the researchers. The verbatim transcripts were subsequently distributed to participants via email for verification and potential modifications. Afterwards, the researchers manually coded and categorized the transcribed data to identify "value-laden instances" (Silverman, 2000) indicating the participants' attitudes toward AI integration. Each university lecturer was assigned a unique code (e.g., UL1 corresponds to University Lecturer Number 1, as presented in Table 1) to facilitate traceability of contributions. As the results indicate, several interviewees expressed the same opinion in response to a single question, and their voices were mostly similar. Therefore, when reporting the number and identities of participants who raised a similar issue, the researchers provided a number of sample extracts from their comments as support for an issue. Data analysis and subsequent reporting were aligned with the research question and objective, thereby effectively exploring Iranian university lecturers' attitudes toward AI integration in teaching English and Turkish as foreign languages within the higher education context.

4. Results

In this section, the researchers report and describe lecturers' attitudes through employing supporting extracts from the interviews. The interviewees were asked 13 questions.

- ## 4.1. Attitudes toward AI Integration

- The first major attitudinal theme of the interviews investigated the lecturers' overall willingness toward incorporating AI into language education, with a focus on their early impressions, awareness, and the expected benefits of such technologies. It comprised three subthemes of *general attitudes and awareness, specific AI tools utilized,* and *perceived benefits.*

- *4.1.1. General Attitudes and Awareness*

- The first subtheme was designed to capture the lecturers' initial observations and the evolution of their understanding toward AI integration in the context of teaching English and Turkish as foreign languages. The study sought to identify the range of emotions, from enthusiasm to reservation, that characterized their early encounters with AI tools. All participants noted that their initial exposure to AI was mixed, reflecting both excitement and caution. They put under the spotlight the significance of their evolving awareness, which changed from initial skepticism to an optimistic view of AI's potential

to develop dual-language instruction. The following comments from UL1, with 25 years of teaching experience, and UL2 with 20 years of teaching experience, elucidate this:

- *"I was both excited and a bit cautious when I started using AI in my university classes. Over time, I've seen how these tools can actually help tailor instruction to different language nuances."*

- *"Honestly, I was a little overwhelmed at first. As I played around with it, I saw that AI provided real-time corrections and really enhanced the way I approached planning, and I realized that it could offer dynamic ways to address Turkish language complexities."*

- *4.1.2. Specific AI Tools Utilized*

- The second subtheme examined the particular digital tools and platforms that lecturers have used to facilitate foreign language instruction. The focus was on exploring the variety of AI tools that have been integrated into their teaching practices to address the challenges of foreign language teaching. The participants underscored the significance of employing a diverse range of AI tools in their classrooms. All university lecturers pointed out that integrating chatbots, voice-recognition systems, and virtual tutoring technologies is essential to effectively address the complex demands of foreign language teaching. This is evident in the following excerpts from UL9, holding Ph.D. in Applied Linguistics, and UL13, holding Ph.D. in English Language and Literature, respectively:

- *"I've started using interactive chatbots, like ChatGPT and Copilot, that help simulate conversational practice. It's really handy in getting students comfortable with everyday language use."*

- *"So, I rely on voice-recognition software and machine translation tools such as Google Translate, which, you know, assist in refining pronunciation and comprehension. Also, I'm using text-to-speech and speech-to-text applications extensively."*

- *4.1.3. Perceived Benefits*

- The next subtheme emphasized the benefits of AI within the educational setting. It solicited insights on how personalized feedback, automated assessment, and data-driven decision-making could enhance learning outcomes and instructional quality. All interviewees asserted that AI integration provides eye-catching benefits by offering personalized feedback and adaptive learning opportunities. The interviewees stressed the utility of AI in developing both instructional planning and learner performance, particularly by accommodating the distinct needs of English and Turkish learners. The following comments from UL5 and UL16 elucidate this, respectively:

- *"I see AI as a tool to streamline lesson planning with detailed analytics, which, in turn, allows me to focus more on fostering higher-order language skills in my classes. Also, with AI's adaptive learning modules, we can deliver more precise error correction and content reinforcement, which may enhance student outcomes."*

- *"I expect AI to offer individualized feedback that caters to the unique demands of Turkish teaching, making lessons more engaging and effective. Moreover, I assume that by automating routine language assessments, AI frees me up to focus on creative, in-depth discussions that enrich foreign language learning experiences."*

4.2. Pedagogical Innovation and Teaching Practices

The second major attitudinal theme emerging from the interviews elucidated AI's transformative impact on teaching methodologies and strategies, highlighting its potential to reconceptualize lesson planning and enhance teacher-student interactions. Two subthemes of *transforming teaching methodologies* and *supporting students: establishing rapport and enhancing engagemen*t, demonstrate these points.

4.2.1. Transforming Teaching Methodologies

This subtheme aimed to explore how AI is reshaping the design and implementation of lesson plans and prompted participants to forecast how digital tools might support a shift toward more data-informed teaching methods that might dynamically adjust to student needs. The interviewees put under the spotlight the significance of transitioning from static to dynamic instructional planning. They noted that AI enables a more responsive pedagogical approach by continuously adapting lesson content to meet evolving student needs. The following comment from UL4, holding Ph.D. in Applied Linguistics with 15 years of teaching experience, demonstrates this point:

- *"Well, I see AI moving me more into the role of a facilitator. I can design follow-up tasks that directly address my students' specific language needs. For instance, an AI tool could promptly adjust tasks based on spontaneous feedback in my classes."*

4.2.2. Supporting Students: Establishing Rapport and Enhancing Engagement

The next subtheme explored how the delegation of routine tasks to AI could liberate lecturers to devote more time to design robust interpersonal connections. Accordingly, it examined the impact of technology on enhancing student engagement and rapport in language classrooms. The participants underscored the importance of reallocating time from administrative chores to direct student engagement. All university lecturers asserted that by allowing AI to carry out routine tasks, they can establish stronger interpersonal relationships and foster a more empathetic, interactive learning environment. In this regard, UL3 and UL17, with 19 years of teaching experience, indicated that:

- *"I believe that AI's personalized feedback makes students feel that their individual needs are being met, which creates a more supportive and friendly classroom environment. I mean, when students see that their specific language challenges are being addressed by AI tools, they are more likely to engage and communicate."*

- *"By handling some of the grading and basic assessments, AI lets me focus on our interactions, making sure that the warmth of teacher-student relationships isn't lost within technology."*

4.3. Organizational and Infrastructural Dynamics

- The third theme identified external influences on AI adoption, particularly those linked to professional development, organizational support, and resource allocation. It includes two subthemes of *faculty support and resources* and *professional development and training* that illuminate these crucial factors.

- *4.3.1. Faculty Support and Resources*

- The first subtheme examined the role of organizational support and the adequacy of infrastructural resources in enhancing the integration of AI. The goal was to evaluate how financial, technical, and administrative supports affect the successful adoption of new technologies in foreign language classes. The participants noted that the availability of robust faculty support and resources is indispensable for the ideal integration of AI. They underscored that developing technological infrastructure and securing sustained financial investment are critical to overcoming the challenges of Turkish and English instruction in higher education. In this regard, UL7, holding Ph.D. in Applied Linguistics with 11 years of teaching experience, and UL19, Ph.D. in Turkish Language and Literature with eight years of teaching experience, asserted that:

- *"For full integration, we need a more robust system, reliable internet access, and dedicated funds that target our specific needs as foreign language instructors. Actually, our department shows basic support by offering introductory workshops, but more advanced funding for specialized AI software is definitely needed."*

- *"While there is moderate support in terms of training, I believe a steady financial investment and improved IT infrastructure focused on language applications are essential."*

- *4.3.2. Professional Development and Training*

- The second subtheme highlighted the necessity for ongoing professional development aimed at equipping lecturers with the skills required to use AI tools. It emphasized the demand for practical, discipline-specific training programs tailored to the unique challenges of teaching English and Turkish. The interviewees noted that consistent, practical professional development is the key for the effective use of AI in higher

education. Moreover, they stated that tailored training programs, which address both technical and pedagogical challenges, are critical to build competence and confidence in using these tools. This is evident in the following statements from UL2 and UL11, respectively:

- *"The training we have received so far has been mostly introductory. I'd really appreciate more hands-on workshops that focus on practical applications in classes."*

- *"While the current sessions are a decent starting point, I need more specialized training that addresses troubleshooting and advanced AI applications for foreign language instruction."*

4.4. Ethical and Professional Considerations

The fourth theme explored how the integration of AI raises important ethical questions and affects participants' professional identities and autonomy. Two subthemes address issues related to *ethical concerns and data privacy* and *the impact on professional identity and autonomy.*

4.4.1. Ethical Concerns and Data Privacy

The first subtheme investigated the ethical issues associated with AI usage, particularly concerning the protection of sensitive student data. This subtheme intended to assess how lecturers view the balance between technological innovation and the necessity of maintaining robust data security standards. The lecturers underscored the significance of maintaining stringent data protection protocols in the context of AI-enhanced learning. Besides, they pointed out that strict policies are essential to protect sensitive student information and mitigate the risks of digital misconduct. The following statements from UL5, UL9, and UL12 demonstrate these points, respectively:

- *"I'm really concerned about potential data breaches. It's essential that we adopt data protection measures that cover all AI tools used in language classes. I mean, there's always the risk of misusing personal information."*

- *"A very important issue is protecting students' data. Implementing very strict protocols and clear policies at the university level is a must. Therefore, ensuring data privacy is critical."*

- *"Ethical issues are at the forefront. So clear guidelines on data handling and continuous training on data security are, in my opinion, the best and most effective ways to manage privacy risks."*

4.4.2. The Impact on Professional Identity and Autonomy

- The second subtheme explored the potential reconfiguration of lecturers' roles as AI becomes more integrated into teaching practices. The focus was to determine how lecturers perceive the balance between the supportive functions of AI and the preservation of their own professional agency and autonomy. The interviewees noted that while AI can significantly enhance educational delivery, it is imperative to preserve their autonomy. Moreover, they stated that the importance of retaining control over pedagogical decisions even as digital tools increasingly assist in routine tasks. In this respect, UL1, UL6, and UL10 noted that:

- *"I see AI shifting my role toward being more of a mentor rather than simply delivering content. It gives me room to focus on deep discussions in my classes."*

- *"While AI handles the routine grading, I can invest more time in creative, high-level teaching. AI can transform my role into that of a facilitator who supports students through language challenges."*

- *"I always consider AI as a supportive tool. This balance allows me to enrich my classes with AI-driven insights while keeping full control of my teaching practices and curricula."*

4.5. Vision for the Future, Innovation Potential, and Recommendations

- The fifth theme encouraged educators to contemplate the future trajectory of AI in higher education and to provide recommendations for its effective integration. This theme is divided into two subthemes: *the future evolution of teaching and learning* and *university lecturers' suggestions and recommendations.*

4.5.1. The Future Evolution of Teaching and Learning

- The first subtheme explored the interviewees' attitudes regarding potential developments of AI in the coming years. The interviewees highlighted the potential for AI to transform teaching while reinforcing the necessity of maintaining human interaction. Furthermore, they pointed out that future AI advancements must complement rather than replace the nuanced pedagogy of language education. The following statements from UL3, holding Ph.D. in Applied Linguistics with 19 years of teaching experience, and UL18, holding Ph.D. in Turkish Language and Literature with 10 years of teaching experience, demonstrate these points, respectively:

- *"I predict a future where AI handles a lot of the technical and routine tasks. As AI evolves, I believe we will have a richer tool to refine our lesson plans, yet it will always be important to keep that personal, human-led teaching element alive."*

- *"It may be a routine part of classroom instruction in the years to come. The challenge will be ensuring that AI's analytical power always supports rather than diminishes the human connection!"*

- *4.5.2. University Lecturers' Suggestions and Recommendations*

- The next subtheme examined lecturers' recommendations on how to achieve a smoother and more effective integration of AI. The participants underscored the significance of a meticulous approach to AI integration. Further, they asserted that initiating pilot studies, combined with continuous development and systematic feedback, is critical for long-term success in enhancing foreign language instruction in higher education in Iran. This is evident in the following excerpts from UL4 and UL13:

- *"I'd recommend continuous professional development and conducting regular feedback sessions to ensure that the AI tools meet the needs of foreign language instruction."*

- *"Investing in thorough, discipline-specific training and ensuring reliable administrative support are the key points. It's important to take it slow so that we can adapt our teaching methods."*

4.6. Challenges and Barriers in AI Integration

- The last theme of the interviews explored the practical barriers and potential drawbacks associated with implementing AI in higher education. It is subdivided into two subthemes of *general challenges in adopting AI* and *overcoming support issues: balancing AI and human connection.*

- *4.6.1. General Challenges in Adopting AI*

- This subtheme investigated the operational and systemic challenges associated with the implementation of AI in foreign language classes. The subtheme highlighted the importance of the issues, such as technical malfunctions, language-specific constraints, and the risk of over-reliance on technology. The interviewees asserted that technical and systemic challenges must be addressed for AI to be beneficial to education. Besides, they pointed out that overcoming issues such as system rigidity and privacy vulnerabilities is essential for ensuring that AI enhances rather than hinders language learning. This is evident in the following excerpts from UL5, UL10, and UL12, respectively:

- *"To me, a challenge might be dealing with technical issues. Also, there's always the risk of overdependence on technology."*

- *"I believe that data privacy remains a very critical concern, and the rigidity of some AI systems may not account well for the flexible nature required in our university classes."*

- *"I'm really worried that excessive automation may one day depersonalize the learning experience if we don't carefully monitor how AI tools operate in our classes."*

- *4.6.2. Overcoming Support Issues: Balancing AI and Human Connection*

- The last subtheme identified strategies for ensuring that AI integration does not compromise the fundamental human interaction between lecturers and students. This subtheme aimed to explore how delegating administratively burdensome tasks to AI might facilitate more meaningful interaction. All interviewees noted that it is critical to strike a careful balance between leveraging AI's efficiency and retaining the integral educator-student interaction. They also asserted that by delegating routine tasks to AI, they might devote more time to personal engagement and thus develop the learning experience. The following extracts from UL4, UL13, and UL15 elucidate this, respectively:

- *"Well, striking a cautious balance is the key. AI takes care of the heavy lifting on assessments, while I ensure I'm still deeply involved in personal interactions and cultural nuances of English instruction."*

- *"I intentionally save AI for administrative duties and let my core teaching, especially the interpersonal parts, be wholly in the human realm, to ensure that the connection remains warm, sincere, and genuine."*

- *"Actually I use AI as a supportive tool rather than a replacement. It frees me up to engage in face-to-face discussions and mentor students on the subtleties of the Turkish language."*

5. Discussion

The current study examined Iranian university lecturers' attitudes toward the integration of AI in teaching English and Turkish as foreign languages. The findings indicate a multifaceted response in which university lecturers simultaneously embrace the transformative potential of AI while expressing significant reservations rooted in their limited technological preparation. These results emanate from the fact that many lecturers begin their careers with insufficient exposure to advanced digital tools. This challenge is illustrated in the literature by some scholars (Celik et al., 2025).

In contrast to studies that report positive attitudes among early users of digital technology, the findings of this study revealed that the initial response is far from uniform. Although some lecturers gradually shifted from skepticism to cautious optimism after gaining practical experience, others maintained apprehensive attitudes concerning how AI may diminish conventional pedagogical paradigms. This divergence suggests that individual differences in technological self-efficacy and previous digital exposure play a critical role. Jordan and Mitchell (2015) demonstrated that familiarity with AI's capacities enhances acceptance;

however, the present study shows that even as familiarity increases, concerns regarding ease of AI integration in higher education persist.

The Extended TAM (Venkatesh & Davis, 2000) provides a robust framework for analyzing university lecturers' attitudes toward AI integration in foreign language teaching, moving beyond description to explain key patterns in adoption. Perceived usefulness (PU), the belief that AI enhances teaching performance, shows up in different ways. Lecturers acknowledged the value of AI in creating flexible, student-centered lessons that boost engagement (Pokrivcakova, 2019). Meanwhile, they asserted that it could weaken the personal connections vital to language teaching, such as building rapport and addressing cultural needs (Raygan & Moradkhani, 2022). This aligns with Celik et al. (2025), who noted that in settings with limited resources, PU depends on AI supporting rather than replacing teachers. Over time, better AI tools could strengthen this perception and encourage wider use. Perceived ease of use (PEOU) stands out as a major obstacle. Many lecturers lacked technological self-efficacy, leading to early doubts that eased only with hands-on experience (Jordan & Mitchell, 2015). TAM suggests PEOU shapes PU and overall acceptance, which explains why even familiar users still questioned how well AI fits into language teaching. Training focused on simple integration steps could address this key issue. Subjective norms (SN), social pressures from colleagues and leaders, played a varied role. Some peer discussions-built support, but weak institutional support often pulled in the opposite direction (Khajavi & Ezhdehakosh, 2025). In Iranian higher education, where policies guide change, stronger leadership signals could shift norms and speed up AI uptake. Facilitating conditions (FC), such as training and technology support, were often missing, making adoption more challenging (Kessler, 2016). Lecturers called for steady funding and development programs (Fidan & Kasimi, 2023), which TAM views as key external factors that support use. Improving FC would develop confidence and reduce barriers across the board. Self-efficacy (SE), personal belief in handling AI, tied everything together. University lecturers with prior digital exposure held more positive attitudes toward PU and PEOU, whereas other lecturers highlighted risks, namely data privacy, ethical issues, overreliance on AI, and job changes (An et al., 2023). These TAM constructs demonstrate why attitudes are mixed and point to a path forward: hybrid approaches with strong training, support, and ethical guidelines. This analysis interprets the multifaceted essence of the findings of this study and suggests practical steps for Iranian higher educators to make AI a real asset in language teaching.

Different attitudes toward AI integration arise predominantly from differences in technological self-efficacy and prior digital exposure among university lecturers. This pattern aligns with the extended TAM (Venkatesh & Davis, 2000), wherein perceived ease of use and usefulness underpin adoption; however, in the Iranian context, limited pre-service technological preparation engenders hesitation by amplifying apprehensions over pedagogical disruption. Such dynamics necessitate targeted interventions to mitigate adoption differences, thereby promoting equitable advancement in foreign language education (Jordan & Mitchell, 2015).

Synthesizing the double-edged pedagogical impacts, AI's potential for dynamic, personalized curricula promises enhanced engagement (Pokrivcakova, 2019), but lecturers'

reservations underscore why over-reliance could destroy human-centered elements such as empathy and cultural nuance central to language teaching. This tension explains persistent doubts despite growing familiarity: AI excels in data-driven adaptation but lacks the relational depth humans provide (Raygan & Moradkhani, 2022). This interplay underscores the imperative for hybrid models wherein AI supplements human discernment, thereby fostering instructional authenticity and efficacy.

A deeper examination of university lecturers' skepticism reveals how technological SE, as conceptualized in TAM (Venkatesh & Davis, 2000), interacts with Iranian university lecturers' cultural and structural idiosyncrasies to create resistance beyond mere lack of experience. Thus, fears of AI changing traditional teaching methods stem from a need to protect familiar roles, where low SE turns technology into a threat rather than a tool. These findings are in line with Jordan and Mitchell's (2015) findings on familiarity's role, suggesting that, in Iranian context, SE-building must incorporate culturally attuned narratives framing AI as an enhancer of teacher centrality, thereby transforming skepticism into empowerment. Ethical issues also stand out sharply in this context, due to unclear regulations and external pressures in Iranian higher education. Without strong data rules, AI's unclear workings raise risks of breaches and biases, particularly since tools are mostly built for English and lack support for Turkish or Persian, which might lead to unfair results in diverse classrooms (Celik et al., 2025).

Organizational and infrastructural themes further underscore the interplay of facilitating conditions with iterative processes. University lecturers' endorsement of gradual AI enhancements via ongoing professional development directly addresses FC deficits, aligning with Fidan and Kasimi (2023) who advocate iterative evaluation to refine tools against local needs. However, without sustained investment, early efforts often fail (Kessler, 2016). This connection highlights iterative work as essential for enhancing FC, growing SE, and changing group expectations (Khajavi & Ezhdehakosh, 2025). For instance, regular checks could counter ethical issues by incorporating tests for bias tailored to dual-language contexts, fostering trust and allowing wider use. These interpretations, drawing on TAM constructs, cultural insights, and context-specific studies, illuminate why Iranian university lecturers' multifaceted responses differ from global studies. Instead of straightforward agreement with prior research (Chalak & Mair, 2025), the results reveal unique challenges demanding different solutions, namely SE-targeted training, culturally sensitive ethics protocols, and FC investments. It is worth noting that this approach explains attitudinal divergences, refines TAM for non-Western settings, and offers clear steps for digital transformations in Iranian universities.

The study's findings regarding pedagogical innovation highlight the double-edged nature of AI integration. Many lecturers conceived a shift from rigid, static lesson planning to a dynamic, adaptive pedagogy in which the curriculum is constantly adjusted based on student performance. These findings are in line with some previously conducted studies (e.g., Chalak & Mair, 2025; Pokrivcakova, 2019). In this regard, Pokrivcakova (2019) demonstrated that AI-driven personalized learning settings could enhance learner engagement.

However, some participants expressed doubts about whether AI could be integrated into existing curricula without sacrificing human-centered qualities that make language teaching effective. In contrast to literature (Raygan & Moradkhani, 2022), which often portrays AI as a straightforward way to greater educational efficiency, the participants of this study noted that over-reliance on such tools could unintentionally diminish the personal connections that enrich the learning process. These contrasting attitudes highlight the need to strike a balance between embracing technological innovation and maintaining the teacher-led, interpersonal interactions that remain central to effective language education, a balance also underscored by Raygan and Moradkhani (2022) in the literature.

Organizational and infrastructural dynamics emerged as another determinant with both enabling and impeding aspects. The findings of this study confirm the limited existence of organizational support, yet the majority of the participants criticized the absence of consistent, significant financial and technical support. These results emanate from the fact that persistent organizational commitment is essential for successful AI integration (Venkatesh & Davis, 2000).

In much the same vein, Kessler (2016) underscored the necessity of consistent infrastructural investments; nevertheless, the present study's contradictory results revealed that in the context of Iranian higher education, these investments are insufficient. This disparity emphasized the urgent need for comprehensive and context-sensitive policy changes and resource allocation plans.

Insufficient organizational support emerges as the pivotal element constraining AI adoption, as underinvestment in infrastructure and training sustains contextual impediments within Iranian higher education (Kessler, 2016). This systemic deficiency highlights the necessity for sustained, context-specific policies to convert enthusiasm into implementation, preventing AI from becoming another unrealized digital promise.

Ethical and professional concerns add another complexity to the AI integration process in higher education. The findings indicated that many lecturers worry about issues including data privacy, bias, and the potential loss of professional autonomy. These results emanate from the fact that digital environments inevitably carry risks, including data breaches and ethical ambiguities, as noted by Celik et al. (2025). Although AI is praised for its efficiency, An et al. (2023) noted that excessive reliance on automated processes can undermine educators' ability to exercise their own judgment and tailor their teaching to individual needs. Participants in this study recognized that AI could help with regular tasks, but they stressed that it should never replace the thoughtful, nuanced decision-making that lies at the heart of good teaching. These conflicting attitudes suggest that a balance must be maintained between the benefits of AI and the ethical issues to maintain human oversight.

Participants' positive attitudes toward the role of AI in higher education revealed that ongoing enhancement through iterative processes might render AI more effective at meeting instructional objectives. These findings suggest that although current implementations may be

imperfect, iterative improvements may overcome many constraints. This is echoed in the literature by Fidan and Kasimi (2023) and Vera (2023). Concerning this, they noted that ongoing assessment is essential to realize the full potential of AI. In contrast to the literature that conceives a fully automated future, the findings of this study demonstrated that lecturers in higher education remain committed to maintaining teacher-student interactions.

On the other hand, the interviewees' recommendations, including establishing ongoing professional development, reinforce the view that AI integration is evidence-based and incremental. These recommendations align with the phased AI adoption strategies proposed by Khajavi and Ezhdehakosh (2025) and contribute to a more systematic approach to AI adoption.

Finally, the findings of the study suggest that successful AI integration in language teaching within Iranian higher education requires a nuanced and thorough approach. The contrasting attitudes, the critical role of organizational support, and the ethical issues and professional challenges identified herein highlight the intricacy of this transformation. These findings are in line with, and in some cases contrast to the broader literature on digital transformation and technology implementation in higher education (Chalak & Mair, 2025; Jordan & Mitchell, 2015).

6. Conclusion

Although AI possesses the transformative potential to empower adaptive teaching practices, this research demonstrates that its integration is accompanied by critical concerns, including ethical issues, limited technological proficiency, over-reliance on AI, limited university support, and diminishing human contact. This study gave contributions to the literature on AI integration from the perspectives of Iranian university lecturers and found that AI integration is regarded as an effective mechanism for transforming static, traditional teaching models into more dynamic, student-centered learning environments. Besides, AI has the potential to free up university lecturers' time for more purposeful, personalized interactions that directly meet their students' needs by automating routine tasks like grading. This reallocation of instructional effort can promote individualized feedback and real-time adaptive lesson planning, which will improve academic results and teaching effectiveness.

The results of this study provide some pedagogical implications that can be of benefit for the Iranian policymakers, foreign language teacher educators, university lecturers, and teachers. The findings suggest that in order to protect data privacy and uphold academic integrity, universities in Iran are expected to prioritize the development of discipline-specific, ongoing professional development programs as well as the establishment of transparent legal and ethical frameworks. Reconciling the transformative potential of AI with the enduring necessity of human oversight and critical judgment in educational practice requires such pedagogical innovations. Moreover, Iranian stakeholders and educators can consult these findings as a means of exploring strengths, weaknesses, opportunities, and threats (SWOT) analysis (Hill & Westbrook, 1997) of AI integration in higher education in Iran. SWOT analysis is a framework for examining the internal and external factors that might influence the viability of a person, place, or project (Hill & Westbrook, 1997). The SWOT analysis of AI integration

in higher education may help Iranian educators and stakeholders foster a full awareness of all the factors involved in AI integration and enhance Iranian university lecturers' practices. Furthermore, the findings of the study could assist stakeholders in investigating university lecturers' strengths and weaknesses, recognizing the challenges they encounter, and offering more effective support to them. Educators could draw upon the results to provide certain professional development opportunities for university lecturers on the latest AI updates to enhance the quality of AI integration in their teaching practices. Also, the findings of this study could familiarize stakeholders with the expectations Iranian university lecturers harbor for AI integration and address those concerns in their future practices. These implications are rooted in the study's findings, interpreted through the Extended TAM framework (Venkatesh & Davis, 2000), which highlights how perceived usefulness and ease of use are constrained by low self-efficacy, poor facilitating conditions, and subjective norms in the Iranian context. University lecturers' recognition of AI's potential to enable dynamic pedagogies and automate routines directly informs recommendations for professional development programs that build self-efficacy through hands-on training, addressing the skepticism tied to limited exposure and infrastructural gaps identified in the data. Further, organizational support deficits, echoed across themes, necessitated sustained investments to strengthen facilitating conditions, fostering normative shifts toward acceptance as per TAM dynamics.

This study faced certain limitations, which need to be taken into account in interpreting the findings. Firstly, the study was exclusively carried out at Allameh Tabataba'i University, the only university in Iran offering a Turkish language major, which constrains the generalizability of the findings to broader disciplinary contexts within higher education. Thus, future researchers are recommended to replicate this study with university lecturers from other countries to yield more generalizable results. Secondly, the participants of this study were selected based on convenience sampling. Therefore, this study can be duplicated with other procedures to make the findings more generalizable. Finally, the study calls for further investigation to examine the interviewees' attitudes toward AI integration in higher education considering the differences in their age, gender, and teaching experience.

References

[1] An, X., Chai, C. S., Li, Y., Zhou, Y., Shen, X., Zheng, C., & Chen, M. (2023). Modeling English teachers' behavioral intention to use artificial intelligence in middle schools. *Education and Information Technologies, 28*(5), 5187–5208. https://doi.org/10.1007/s10639-022-11286-z

[2] Aydın, S. N. (2024). Turkish EFL learners' opinions on Duolingo vs AI-based application EWA: An example in foreign language education. *Language Education & Technology, 4*(1), 79–97. https://www.langedutech.com/letjournal/index.php/let/article/view/72

[3] Celik, B., Yildiz, Y., & Kara, S. (2025). Using ChatGPT as a virtual speaking tutor to boost EFL learners' speaking self-efficacy. *Australian Journal of Applied Linguistics, 8*(1), Article 102418. https://doi.org/10.29140/ajal.v8n1.102418

[4] Celik, S. (2013). Internet-assisted technologies for English language teaching in Turkish universities. *Computer Assisted Language Learning, 26*(5), 468–483. https://doi.org/10.1080/09588221.2012.692385

[5] Chalak, A., & Mair, C. (2024). Navigating e-learning horizons: Exploring challenges and opportunities in higher education integration from the German vs. Iranian EFL teacher's lens.

Applied Research on English Language, 13(4), 163–206. https://doi.org/10.22108/are.2024.142181.2335

[6] Chalak, A., & Mair, C. (2025). Investigating the integration of e-learning in higher education: Challenges and opportunities through the eyes of German vs. Iranian students. *Journal of Research in Applied Linguistics, 16*(1), 137–156. https://doi.org/10.22055/rals.2024.47858.3366

[7] Chauhan, S. (2017). A meta-analysis of the impact of technology on learning effectiveness of elementary students. *Computers & Education, 105*, 14–30. https://doi.org/10.1016/j.compedu.2016.11.005

[8] Coffey, A., & Atkinson, P. (1996). *Making sense of qualitative data: Complementary research strategies*. SAGE Publications.

[9] Denzin, N. K., & Lincoln, Y. S. (2000). The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 1–28). SAGE Publications.

[10] Filiz, O., Kaya, M. H., & Adiguzel, T. (2025). Teachers and AI: Understanding the factors influencing AI integration in K–12 education. *Education and Information Technologies, 30*(13), 17931–17967. https://doi.org/10.1007/s10639-025-13463-2

[11] Gurel Cennetkusu, N. (2026). EFL teachers' attitudes toward artificial intelligence in language teaching: A mixed-methods study in Türkiye. *Social Sciences & Humanities Open, 13*, Article 102580. https://doi.org/10.1016/j.ssaho.2026.102580

[12] Harwood, N., Austin, L., & Macaulay, R. (2009). Proofreading in a UK university: Proofreaders' beliefs, practices, and experiences. *Journal of Second Language Writing, 18*(3), 166–190. https://doi.org/10.1016/j.jslw.2009.05.002

[13] Haseski, H. I. (2019). What do Turkish pre-service teachers think about artificial intelligence? *International Journal of Computer Science Education in Schools, 3*(2), 3–23. https://doi.org/10.21585/ijcses.v3i2.55

[14] Hidayat, N., Setiawan, S., & Anam, S. (2023). Do EFL teachers' digital literacies reflect sociocultural frameworks during their online professional development? *Language Related Research, 14*(1), 193–217. https://doi.org/10.29252/LRR.14.1.8

[15] Hill, T., & Westbrook, R. (1997). SWOT analysis: It's time for a product recall. *Long Range Planning, 30*(1), 46–52. https://doi.org/10.1016/S0024-6301(96)00095-7

[16] Jafary, M., Soleimani, M., & Haghdoust, A. (2024). A critical review on the second language academic literacy development in Iranian higher education system. *English Language Teaching, 17*(2), 58–66. https://doi.org/10.5539/elt.v17n2p58

[17] Jordan, M. I., & Mitchell, T. M. (2015). Machine learning: Trends, perspectives, and prospects. *Science, 349*(6245), 255–260. https://doi.org/10.1126/science.aaa8415

[18] Karataş, F., Abedi, F. Y., Ozek Gunyel, F., Karadeniz, D., & Kuzgun, Y. (2024). Incorporating AI in foreign language education: An investigation into ChatGPT's effect on foreign language learners. *Education and Information Technologies, 29*(15), 19343–19366. https://doi.org/10.1007/s10639-024-12574-6

[19] Karsenti, T. (2019). Artificial intelligence in education: The urgent need to prepare teachers for tomorrow's schools. *Formation et Profession, 27*(1), 105–111. https://doi.org/10.18162/fp.2019.a166

[20] Kasımi, Y., & Fidan, Ş. (2023). An investigation into artificial intelligence (AI) in the English as a foreign language (EFL) context. *International Journal of Educational Spectrum, 5*(2), 269–280. https://doi.org/10.47806/ijesacademic.1341110

[21] Kemp, A., Palmer, E., Strelan, P., & Thompson, H. (2024). Testing a novel extended educational technology acceptance model using student attitudes towards virtual classrooms. *British Journal of Educational Technology, 55*(5), 2110–2131. https://doi.org/10.1111/bjet.13440

[22] Kessler, G. (2016). Technology standards for language teacher preparation. In F. Farr & L. Murray (Eds.), *The Routledge handbook of language learning and technology* (pp. 57–70). Routledge.

[23] Khajavi, Y., & Ezhdehakosh, M. (2025). Enhancing language teacher education: Exploring the integration of AI-powered tools in preservice teacher education. *Journal of Research in Applied Linguistics, 16*(1), 189–206. https://doi.org/10.22055/rals.2024.48226.3405

[24] Kianinezhad, N. (2023). Attitudes towards online teaching: Gender, experience, and age among Iranian English language teaching teachers. *TESOL and Technology Studies, 4*(2), 15–26. https://doi.org/10.48185/tts.v4i2.868

[25] Klimova, B., Pikhart, M., Polakova, P., Cerna, M., Yayilgan, S. Y., & Shaikh, S. (2023). A systematic review on the use of emerging technologies in teaching English as an applied language at the university level. *Systems, 11*(1), Article 42. https://doi.org/10.3390/systems11010042

[26] Lima, C. de, Bastos, R. C., & Varvakis, G. (2020). Digital learning platforms: An integrative review to support internationalisation of higher education. *Educação em Revista, 36*, Article e232826. https://doi.org/10.1590/0102-4698232826

[27] Ma, J., Wang, P., Li, B., Wang, T., Pang, X. S., & Wang, D. (2025). Exploring user adoption of ChatGPT: A technology acceptance model perspective. *International Journal of Human–Computer Interaction, 41*(2), 1431–1445. https://doi.org/10.1080/10447318.2024.2314358

[28] Mirzaeian, V. R., & Oskoui, K. (2022). Investigating Iranian EFL student teachers' attitude toward the implementation of machine translation as an ICALL tool. *Journal of English Language Teaching and Learning, 14*(30), 165–179. https://doi.org/10.22034/elt.2022.52038.2496

[29] Panahandeh, M., & Chalak, A. (2020). Role of gamification in doing homework by Iranian EFL learners. *Journal of Studies in Learning and Teaching English, 9*(1), 79–95.

[30] Pokrivcakova, S. (2019). Preparing teachers for the application of AI-powered technologies in foreign language education. *Journal of Language and Cultural Education, 7*(3), 135–153. https://doi.org/10.2478/jolace-2019-0025

[31] Pokrivcakova, S. (2023). Pre-service teachers' attitudes towards artificial intelligence and its integration into EFL teaching and learning. *Journal of Language and Cultural Education, 11*(3), 100–114. https://doi.org/10.2478/jolace-2023-0031

[32] Rapti, C., & Panagiotidis, P. (2024). Teachers' attitudes towards AI integration in foreign language learning: Supporting differentiated instruction and flipped classroom. *European Journal of Education, 7*(2), 88–104. https://doi.org/10.26417/171oob60e

[33] Raygan, A., & Moradkhani, S. (2022). Factors influencing technology integration in an EFL context: Investigating EFL teachers' attitudes, TPACK level, and educational climate. *Computer Assisted Language Learning, 35*(8), 1789–1810. https://doi.org/10.1080/09588221.2020.1839106

[34] Raygan, A., & Moradkhani, S. (2024). Iranian EFL teachers' perceptions toward technology integration, TPACK, attitudes toward technology, and school climate: The case of public schools versus private institutes. *Technology Assisted Language Education, 2*(4), 22–44. https://doi.org/10.22126/tale.2024.11069.1056

[35] Silverman, D. (2000). Analyzing talk and text. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 821–834). SAGE Publications.

[36] Varsamidou, A. (2024). Integration of artificial intelligence in foreign language teaching: Exploring views and beliefs of Greek foreign language teachers. *International Journal of Language and Literary Studies, 6*(3), 299–320. https://doi.org/10.36892/ijlls.v6i3.1818

[37] Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science, 46*(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926

[38] Vera, F. (2023). Integrating artificial intelligence (AI) in the EFL classroom: Benefits and challenges. *Transformar, 4*(2), 66–77. https://www.revistatransformar.cl/index.php/transformar/article/view/93

[39] Yılmaz Virlan, A., & Tomak, B. (2025). AI tools for writing: A Q-method study with Turkish instructors of English. *Education and Information Technologies, 30*(12), 16997–17021. https://doi.org/10.1007/s10639-025-13455-2