



Are Teachers Ready for AI? A Mixed-Methods Study

Zeynep Ertürk İen^{a*}

^a Bursa Uludag University (PhD Program), Trkiye; <https://orcid.org/0009-0004-6103-923X>

Suggested citation: Ertrk İen, Z. (2026). Are Teachers Ready for AI? A Mixed-Methods Study. *Language Education and Technology (LET Journal)*, 6(1), 40–68.

Article Info

Date submitted: 13/10/2025

Date accepted: 08/06/2026

Date published: 08/06/2026

Research Article

Abstract

As artificial intelligence reshapes the educational landscape, understanding teacher readiness for its integration is crucial for effective classroom implementation. This study explored Turkish in-service EFL teachers' readiness for AI integration by examining the factors influencing their behavioral intentions and actual use of AI through a research model. Using an explanatory sequential mixed-methods design, quantitative data were first collected from 103 in-service EFL teachers via a six-point Likert scale questionnaire, analyzed through descriptive and inferential statistics in SPSS. Subsequently, qualitative data were gathered via semi-structured interviews with a subset of 10 participants and analyzed using Qualitative Content Analysis in MAXQDA. The key findings revealed that Turkish EFL teachers demonstrate strong interest and positive attitudes toward AI, acknowledging its potential to enhance teaching practices. However, contextual and institutional barriers, such as limited infrastructure and lack of standardized AI policies, hinder full integration. These results underscore the need for targeted training programs, infrastructural investments, and systematic strategies to support AI adoption in Turkish EFL settings. By addressing an underexplored area in educational research, this study provides valuable insights into the practical and affective dimensions of AI adoption. It highlights the role of external factors, including institutional support and perceived challenges, in shaping teachers' readiness. The study concludes with actionable recommendations for policymakers to create a sustainable framework for integrating AI into education.

Keywords: AI Readiness, EFL Teachers, Technology Acceptance Model, Mixed-Methods

Introduction

The revolutionary impact of Artificial Intelligence (AI) in education is indisputable (Cooper, 2023; Crompton et al., 2024; Fullan et al., 2024). As artificial intelligence reshapes classrooms around the globe, a critical question arises: how prepared are teachers to embrace both the promises and challenges of this technological shift, guiding their students with confidence, ethical awareness, and readiness for a future increasingly shaped by AI? (Ayanwale et al., 2022; Uygun, 2024). Teachers play a vital role in integrating AI into education, unlocking new opportunities while emphasizing the importance of preparing both

* Zeynep ERTRK İEN, PhD student in English Language Teaching, Bursa Uludag University. Turkey
e-mail address: ertrkz@gmail.com

teachers and students for this transformation. They are most anticipated to be equipped to apply novel ideas within the parameters of governmental regulations.

The phrase ‘AI readiness’ refers to the degree to which educators are cognitively, technically, and ethically equipped to implement AI into their classrooms (Fundi et al., 2024; Wang et al., 2023). In the context of English Language Teaching, with AI offering transformative potential in language instruction, such as personalized learning, adaptive feedback, and language proficiency assessments, teachers' readiness becomes critical for leveraging these tools effectively (Crompton et al., 2024). Therefore, inadequate preparation for artificial intelligence can be a barrier to its effective use in educational settings (Ayanwale et al., 2022; Fundi et al., 2024).

Several studies have explored teachers' perceptions of AI, highlighting its potential benefits and challenges in the ELT context (Chuah & Kabilan, 2021; Crompton et al., 2024; Farazouli et al., 2024; Kartal, 2024; Nghi et al., 2019). Although some research focuses on teacher readiness for AI integration (Ayanwale et al., 2022; Fundi et al., 2024; Ramazanoglu & Akin, 2024; Wang et al., 2023; Yue et al., 2024), there is still a notable lack of studies specifically addressing this issue within ELT.

Therefore, this explanatory sequential mixed-methods study aims to explore Turkish in-service EFL teachers' readiness for AI integration and the affective factors influencing it. This study begins with a quantitative phase to measure teachers' confidence, interests, attitudes, knowledge of AI ethics, subjective norms, and perceived threats shaping their AI readiness. The findings from the quantitative analysis guide the subsequent qualitative phase, where in-depth interviews explore the underlying factors and perspectives influencing teachers' readiness. By combining these methods, the study aims to provide a comprehensive understanding of the factors shaping AI integration in ELT and offer actionable insights for professional development and policy-making.

Given Türkiye's recent emphasis on AI integration in its national educational policies, understanding EFL teachers' readiness is essential to aligning classroom practices with the country's broader AI vision and ensuring successful implementation at all levels of education (Cumhurbaşkanlığı Dijital Dönüşüm Ofisi & Sanayi ve Teknoloji Bakanlığı, 2021; Eral, 2023; MEB, 2024). Türkiye's AI vision encompasses fostering AI literacy as a fundamental educational requirement of the 21st century, aimed at equipping students and teachers to succeed in both personal and professional domains. This vision emphasizes the need for policymakers to take informed and careful steps in ensuring equality of educational opportunity, safeguarding data privacy, promoting ethical AI use, and enhancing teacher training. By effectively integrating AI into education, Türkiye aspires to benefit both students and educators, creating more efficient and impactful educational systems and preparing society for a digitally driven future. This study will raise awareness among teachers, curriculum designers, and policymakers by uncovering Turkish EFL teachers' readiness, perceptions, and challenges in integrating AI, ultimately enhancing student learning. Furthermore, while many AI-related studies focus on the tertiary level (Ayanwale et al., 2022), this study addresses a critical gap by exploring AI integration across all levels of EFL education, including K-12, with the aim of inspiring the development of innovative curricular materials and providing a foundational framework for future advancements.

On the other hand, some studies highlight that teachers may have positive attitudes toward AI while they still lack the skills and knowledge related to AI integration in their classes (Uygun, 2024; Yue et al., 2024). Grounded in the Technology Acceptance Model (TAM) (Davis & Venkatesh, 1996) and its constructs, ‘Perceived Usefulness’, and ‘Perceived Ease of Use’, leading to ‘User Acceptance’ (Davis, 1989), this study explores Turkish EFL teachers' readiness for AI integration in their teaching environments. These frameworks guide the analysis of how teachers' perceptions of AI's utility and ease of use impact their acceptance and preparedness to implement AI in the classroom by measuring their level of confidence in AI, attitudes toward AI, AI ethics, subjective norms, and perceived threats by teachers.

In this regard, the following research questions are addressed in this study:

1. How do external factors (subjective norms, AI ethics, and perceived threats) influence the perceived usefulness and ease of use of AI technologies among Turkish in-service EFL teachers?
2. How do EFL teachers' perceptions of the usefulness and ease of use of AI technologies influence their readiness to integrate AI into teaching practices?
3. How do EFL teachers' behavioral intentions including their attitudes to use AI technologies influence their readiness to integrate AI into teaching practices?
4. How do Turkish in-service EFL teachers perceive and experience the integration of AI technologies in their teaching practices?

Literature Review

As the biggest driver of the Fourth Industrial Revolution, AI has been on the rise of spread into every field in our lives for almost a decade, revolutionizing how we work, communicate, and solve complex problems, while also raising important questions about ethics, privacy, and the future of human-AI collaboration (Schwab, 2017). During this transformative era, stakeholders in education are poised to become both the primary beneficiaries of AI-driven advancements and the most significantly impacted by its challenges and implications. Within the EFL context, questioning whether it is a friend or foe, Sumakul et al. (2022) highlight AI's potential as a supportive tool in classrooms, emphasizing its positive impact on teaching and learning while underscoring the need for further research on teacher expertise, student motivation, and diverse stakeholder perspectives.

Similarly, with the metaphor of an opaque, black box, (Luckin et al., 2022) refer to AI for its complicated and hidden workings which often make it challenging for people who don't have sufficient literacy to fully trust or understand the decisions made by AI. This underscores the importance of specialized knowledge and preparedness within the AI concept, emphasizing the close relationship between AI literacy and AI readiness. Put differently, AI impacts each domain individually or contextually and requires subject matter expertise for optimal results in that specific domain. To achieve effective AI integration in education, all stakeholders- students, teachers, administrators, and policymakers- must be trained, as AI developers' limited understanding of pedagogy often leads to profit-driven applications (Celik et al., 2022).

For effective implementation of AI in education, several studies collectively examined the dual nature of AI in language teaching, shedding light on both its opportunities and the downsides (Celik et al., 2022; Crompton et al., 2024; Jiang, 2022; Liu, 2023). According to Celik et al. (2022), AI offers several advantages in ELT, including support for lesson planning, real-time monitoring, adaptive feedback, workload reduction, and efficient assessment through automated grading and plagiarism detection. However, challenges remain, such as limited algorithm reliability, insufficient technological infrastructure, and gaps in teachers' technological and pedagogical knowledge. Additionally, AI systems often lack adaptability across diverse contexts and provide delayed or non-personalized feedback. The study reveals the need for better teacher training, multimodal data integration, and increased teacher involvement in AI development to maximize its potential in language education. Likewise, Jiang (2022) states that it's crucial to help EFL teachers become more AI-literate so they can better respond to complicated analytics and overcome their hesitation and lack of adoption of AI in the classroom.

Moreover, Liu (2023) highlights that AI enhances foreign language teaching through personalized education, efficient tools like speech recognition and machine translation, and abundant learning materials. However, limitations such as the inability to replace human teachers, lack of diversity in teaching approaches, and technical issues like inaccuracies and data security risks remain significant challenges. By conducting a systematic review study, Crompton et al. (2024) examine the affordances of AI in English language teaching (ELT), such as supporting skills in speaking, writing, reading, and self-regulation, while enhancing pedagogy through personalized learning and real-time feedback. However, challenges like technology breakdowns, limited capabilities, fear of AI use, and concerns about standardizing language remain, underscoring the need for balanced integration and improved AI literacy among educators and

learners. Despite the distinctive scopes of these studies in the ELT context, they all stressed teachers' readiness by getting training, as well as fostering their digital literacy and pedagogical adaptability to effectively integrate AI tools into their teaching practices and address emerging challenges.

In spite of all these implications of the existing studies as to teachers' readiness for AI, we still see scant research on readiness for AI in the EFL context. With 368 participating in-service teachers from various disciplines, Ayanwale et al. (2022) investigated what variables impact teachers' preparedness and purpose to teach AI in Nigerian K-12 schools. The study used structural equation modeling to find that instructors' preparation and behavioral intention are greatly influenced by their perceived relevance and confidence in teaching AI, although fear and views of AI for societal good were not significantly affected.

In another study conducted in China, K-12 teachers' technological pedagogical content knowledge (TPACK) readiness and attitudes toward integrating Artificial Intelligence (AI) education into classrooms were examined. The research involved 1,664 K-12 teachers with varied genders, teaching subjects, grade levels, and AI teaching experience. Using a mixed-methods approach, the study employed two modified questionnaires to measure AI-specific TPACK readiness and attitudes, validated through confirmatory factor analysis (CFA). The findings of the study unfolded that K-12 teachers exhibited higher pedagogical knowledge (PK) than content (CK) and technological knowledge (TK), with positive attitudes and prior AI teaching experience significantly enhancing readiness; male and primary school teachers showed higher readiness, while less experienced teachers reported lower readiness, highlighting diverse needs across five distinct teacher clusters (Yue et al., 2024).

Regarding the EFL setting, (Fundi et al., 2024) investigated Kenyan K-12 in-service teachers' readiness to teach AI in the context of the Competency-Based Curriculum by using a quantitative survey approach with 308 participants from 37 counties in Kenya. And, they concluded that confidence in AI, understanding of AI ethics, and subjective norms significantly predict readiness to teach AI, while attitudes toward AI and perceived threats did not have a significant impact. Their findings also highlighted the need for professional development programs and curriculum changes to better prepare teachers for AI integration in Kenyan schools.

Expanding on this global perspective, Türkiye has also contributed to the body of research on AI, reflecting its engagement with this emerging field, primarily through studies on teacher perceptions of AI and developing or adapting AI literacy scales (Çelebi et al., 2023; Ferikoğlu & Akgün, 2022; Haseski, 2019). In terms of AI readiness, Ramazanoglu & Akın (2024) developed and validated the Readiness for Artificial Intelligence Applications Scale (RAIS) to assess teachers' readiness for AI applications in education, filling a gap in existing scales by incorporating ethical awareness as a unique dimension and providing insights for designing effective AI-integrated learning environments. However, a significant gap remains in longitudinal studies and large-scale investigations addressing the practical implementation and long-term impacts of AI readiness, particularly in both general educational contexts and EFL-specific settings within Türkiye. Accordingly, this mixed-methods study is significant as it aims to address these gaps by exploring AI readiness in the EFL contexts, providing valuable insights into the challenges and opportunities for integrating AI into language teaching and learning, and offering evidence-based recommendations for enhancing teacher preparedness and effective implementation.

The Technology Acceptance Model (TAM) as a Theoretical Framework

The Technology Acceptance Model (TAM) by Fred D. Davis (1989), which identifies Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) as key determinants of user acceptance of information technology, provides a solid foundation for examining Turkish EFL teachers' readiness for AI integration in their classes and for analyzing the study's findings, ultimately linking these determinants to user acceptance of technology. Although AI is completely a distinctive area, the factors affecting the technology acceptance could be associated with AI readiness based on the variables of the model such as perceived usefulness and perceived ease of use. The origin of the framework is based on the Theory of Reasoned Action (TRA) designed by Fishbein and Ajzein in 1975, which aimed to understand the causal relationship among

different variables for an actual usage of a system. They put the attitude in the middle of the model as the main determinant in their framework while the TAM proposed the partial effect of the attitude (Davis & Venkatesh, 1996).

According to TAM, two determinants, PU and PEOU, shape people's acceptance or rejection of a system or a tool within information technology. Perceived usefulness, based on users' own experiences and beliefs, is shaped with a more pragmatic approach that provides benefits like improvement in a specific job. When people think that a system will help them show a better performance on the job, they say that it is perceived useful (PU) and acceptable. On the other hand, Perceived Ease of Use is related to the users' expectations or beliefs as to a specific system in use which is supposed to be simple and straightforward to use. User-friendly systems demand less work and are more likely to be adopted (Davis, 1989).

According to research in the field of information systems, TAM is one of the best models for gauging how users would react to and interact with a product because of the extensive use of the original TAM scale (Davis & Venkatesh, 1996). This study does not use the original TAM scale, but it adopts the idea of how it constructs user acceptance by grounding the data collected through the multiple-item scales, as seen in Figure 1 below.

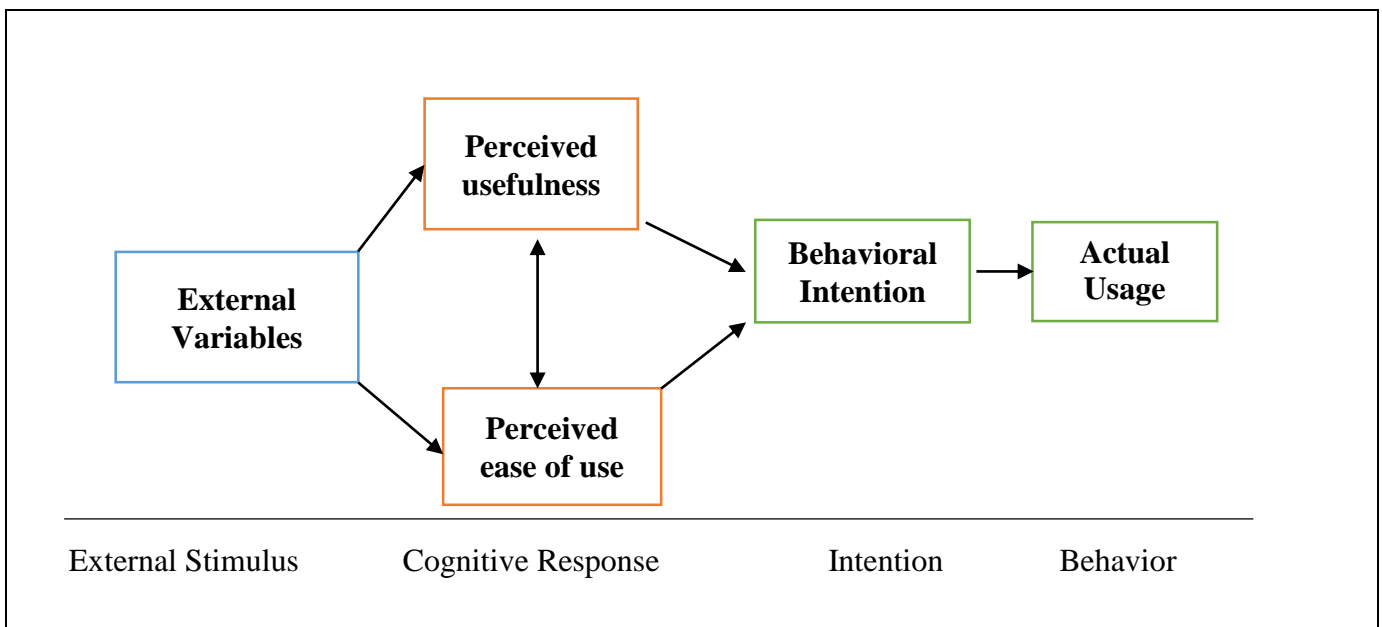


Figure 1. Technology Acceptance Model

Note. The figure was adapted from the study titled with “*A critical assessment of potential measurement biases in the technology acceptance model: three experiments*” by Davis & Venkatesh (1996).

For the quantitative part of this mixed-methods study, the questionnaire (Fundi et al., 2024) used consists of multiple items sorted into different subcategories that help to understand the current situation of EFL teachers' AI readiness, which are, respectively, confidence in learning AI, interest in AI, AI readiness, AI ethics, perceived threats from AI, attitude toward AI, subjective norms, and relevance of AI. On the other hand, for the qualitative part of the study, the semi-structured questions overlap with the same categories, but rather, delve into the detailed answers for a more in-depth understanding of the situation.

Guided by the theoretical framework of TAM, this study organizes these items into distinct categories aligned with the core components of the model and develops hypotheses for the structural equation model to analyze the relationships among these variables. External variables encompass items related to subjective norms, AI ethics, and perceived threats, while attitudinal factors include items addressing confidence, attitudes toward AI, and the relevance of AI. These factors, along with the components of perceived usefulness and perceived ease of use, collectively contribute to AI readiness.

Hypotheses Development by TAM

H1: External variables (Subjective Norms, AI Ethics, Perceived Threats) significantly influence Perceived Usefulness of AI technologies for Turkish EFL teachers.

H2: External variables (Subjective Norms, AI Ethics, Perceived Threats) significantly influence Perceived Ease of Use of AI technologies for Turkish EFL teachers.

Based on the theoretical framework of TAM, it is anticipated that external factors influence the perceptions of EFL teachers to adopt AI technology and use it in their classes. External factors are just one variable of the causal chain that interacts with some other internal dynamics of the individuals, leading to teachers' perceptions (Davis & Venkatesh, 1996). In the first and second hypotheses, external variables that consist of the constructs such as subjective norms, AI ethics, and perceived threats are hypothesized to serve as pivotal elements in shaping teachers' perceptions. For instance, support from peers, represented by subjective norms, can reinforce positive attitudes toward AI adoption by creating a culture of collaboration and shared trust. Ethical clarity regarding AI use, reflected in transparent and responsible practices, may enhance teachers' confidence in the technology, reducing ambiguity and hesitation. Conversely, concerns about the potential threats posed by AI, such as its impact on job security or ethical dilemmas, may foster skepticism, thereby influencing perceptions of its overall value.

Additionally, encouragement from colleagues and a robust ethical understanding are likely to mitigate perceived difficulty in using AI, as teachers feel reassured by peer guidance and a clear ethical framework. On the other hand, perceived threats, such as fears of misuse or an increased dependency on technology, may elevate the perceived complexity of AI adoption, potentially acting as barriers to integration. This interplay of external variables and internal dynamics highlights the nuanced process by which teachers' perceptions are formed, emphasizing the need for targeted support and education to facilitate AI adoption in educational contexts. So, the first research question below was formulated to investigate this relationship between external variables and teacher perceptions in their readiness to integrate AI.

RQ1: How do external factors (subjective norms, AI ethics, and perceived threats) influence the perceived usefulness and ease of use of AI technologies among Turkish in-service EFL teachers?

H3: Perceived Usefulness positively influences Turkish EFL teachers' behavioral Intention to use AI technologies.

H4: Perceived Ease of Use positively influences Turkish EFL teachers' behavioral Intention to use AI technologies.

H5: Perceived Usefulness positively influences Turkish EFL teachers' actual usage of AI technologies.

H6: Perceived Ease of Use positively influences Turkish EFL teachers' actual usage of AI technologies.

It is posited that teachers' perceptions drive behavioral intention, in other words, teachers' attitudes, and directly affect the actual usage, the dependent variable, referring to teachers' readiness for AI integration in the classroom. In this context, readiness reflects not only the willingness to adopt AI but also the preparedness to effectively implement it as part of pedagogical practices. This conceptualization aligns with the theoretical model, the TAM, emphasizing the interconnected relationship between perception, intention, and behavior in technology acceptance and usage, which also covers the overall definition of the concept of attitude (Eagly & Chaiken, 2007). PU emphasizes the value of AI in educational contexts. For instance, a teacher believes that using an AI-driven grading system will save significant time and provide more accurate feedback for students. This perception of usefulness motivates the teacher to intend to adopt the AI system in their classroom. Conversely, PEOU highlights the ease of learning and application of AI tools. A language teacher finds an AI tool for automated essay evaluation easy to learn and use without needing

extensive training. As a result, the teacher shows a stronger intention to incorporate the tool into their lesson plans. Here, the scales of confidence for AI and interest in AI represent the PEOU in the TAM as they reflect users' perceptions of how effortless and manageable it is to interact with AI tools, influencing their willingness and motivation to engage with the technology. Furthermore, all these three constructs are anticipated to have an impact on actual usage of AI technologies including their intention to adopt and integrate them in their professional lives, thereby addressing the second research question.

RQ2: How do EFL teachers' perceptions of the usefulness and ease of use of AI technologies influence their readiness to integrate AI into teaching practices?

H7: Turkish EFL teachers' behavioral intention including their attitudes positively influences their actual usage of AI technologies.

This hypothesis stems from the assumption that teachers' expressed intention to use AI is a strong predictor of their actual integration of these tools into practice. Their expressed intention is also reflected in their attitudes, as indicated by the scales measuring their enthusiasm for incorporating AI into daily life, their willingness to utilize AI in teaching, and their recognition of the importance of equipping students with the skills necessary to effectively leverage AI in the future. Eagly and Chaiken (2007) define attitude as an individual's tendency to evaluate an entity as favorable or unfavorable, and designating a meaning for it through his thoughts, emotions, and actions. An illustrative example of this is as follows when a teacher expresses a strong behavioral intention, demonstrating positive attitudes toward AI by stating, *"I look forward to using AI tools in my teaching and believe it's essential for my students to learn AI-related skills."* This positive intention leads to actual usage as the teacher integrates AI-powered tools like automated grading systems and virtual assistants into their lessons, actively leveraging these technologies in the classroom. In this regard, the third question is addressed:

RQ3: How do EFL teachers' behavioral intentions including their attitudes to use AI technologies influence their readiness to integrate AI into teaching practices?

H8: External variables (Subjective Norms, AI Ethics, Perceived Threats) indirectly influence Turkish EFL teachers' actual usage of AI technologies through perceived usefulness, perceived ease of use, and behavioral intention by them.

The final hypothesis examines the indirect influence of external variables (Subjective Norms, AI Ethics, Perceived Threats) on the Actual Usage of AI technologies, with Perceived Usefulness, Perceived Ease of Use, and Behavioral Intention serving as mediating factors. In the absence of direct relationships among the variables as tested in the model, the hypothesis will be further explored and contextualized using qualitative data.

RQ4: How do Turkish in-service EFL teachers perceive and experience the integration of AI technologies in their teaching practices?

Table 1

Hypotheses Summary Table

Hypothesis	Relationship	Direction
H1	External Variables → Perceived Usefulness	Positive/Negative
H2	External Variables → Perceived Ease of Use	Positive/Negative
H3	Perceived Usefulness → Behavioral Intention	Positive
H4	Perceived Ease of Use → Behavioral Intention	Positive
H5	Perceived Usefulness → Actual Usage	Positive
H6	Perceived Ease of Use → Actual Usage	Positive
H7	Behavioral Intention → Actual Usage	Positive
H8	External Variables → PU/PEOU → BI → AU	Indirect via PU/PEOU/BI

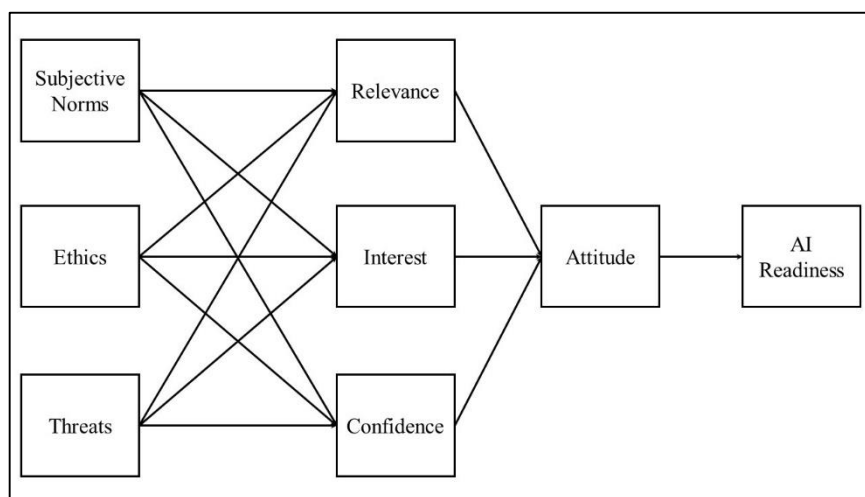


Figure 2. The Hypothesized Model

Figure 2 illustrates the proposed research model, conceptualized in alignment with the Technology Acceptance Model (TAM). On the left side of the figure, Subjective Norms, Ethics, and Threats are depicted as external factors influencing teachers' perceptions. At the center of the model, Relevance, Interest, and Confidence represent the teachers' perceptions, aligning with the TAM constructs of Perceived Usefulness (PU) and Perceived Ease of Use (PEOU).

While these constructs are inherently interconnected, their interrelationships are not included in the research model, as examining these links extends beyond the scope of the current study. Specifically, the scale Relevance corresponds to Perceived Usefulness (PU), whereas Interest and Confidence are indicative of Perceived Ease of Use (PEOU).

The construct Behavioral Intention is operationalized through the scale Attitude, which reflects teachers' willingness and predisposition to integrate AI into their teaching practices. Finally, AI Readiness is conceptualized as the actual use of AI technologies, implying the extent to which teachers adopt and integrate AI into their classroom routines. This model provides a structured framework to explore the factors influencing AI readiness and adoption among teachers, rooted in established TAM principles.

Methodology

Research Design

This study employs an Explanatory Sequential Mixed-Methods design to comprehensively investigate Turkish in-service EFL teachers' readiness for AI integration in their classrooms. The quantitative phase provides a structured and statistically robust analysis of the relationships among external, perceived, and attitudinal factors, using multiple regression model analysis (Field, 2012; Núñez et al., 2011). This phase captures measurable patterns and relationships among constructs such as subjective norms, AI ethics, threats, confidence, and readiness. The qualitative phase complements this by offering rich, nuanced insights into the underlying reasons, beliefs, and experiences that influence teachers' readiness. This allows the study to interpret and expand upon the statistical findings in the context of real-world teaching practices. Such a combination approach is valuable to social studies because it may record process, context, participants' voices, and measurable outcomes all at once (Chaumba, 2013). Moreover, Creswell (2015, p. 535) iteratively notes that conducting mixed-methods research does not only mean gathering two separate 'strands' of data; but also entails merging, integrating, connecting, or embedding the two components.

Thus, this study analyzes the quantitative data from a multiple-item scales survey and connects these numerical findings to the qualitative data drawn from EFL teachers' own insights and real-life experiences.

Participants

The participants in this study included 103 in-service EFL teachers who were recruited using the snowball sampling technique. Through this technique, participants were encouraged to share information about the study with their colleagues, allowing others with potentially different opinions or experiences to join. This approach maximized sample variance by capturing a diverse range of perspectives (Patton, 1980 as cited Creswell, 2015). Therefore, these teachers represented various educational levels and worked in both private and public schools in Türkiye. In the qualitative phase, a subset of 10 teachers was selected for semi-structured interviews, considering the sampling ratio which is .10 or % 10 of the population (Fraenkel et al., 2012). Table 2 summarizes the demographic information of the sampling population in this study.

Table 2

Demographic Profile of the Participants ($N=103$)

		<i>f</i>	%
1. Gender	Female	78	75,7
	Male	25	24,3
2. Age	20-24	7	6,8
	25-30	11	10,7
	31-40	58	56,3
	41-50	22	21,4
	50+	5	4,9
3. Experience	1-3	10	9,7
	4-10	23	22,3
	10-20	51	49,5
	21 +	19	18,4
4. Teaching Area	Primary	11	10,7
	Lower-Secondary	35	34
	Upper-Secondary	42	40,8
	Tertiary	15	14,6
5. School Type	Public	91	88,3
	Private	12	11,7
Total		103	100

The participants in this study consisted of 103 in-service EFL teachers, with 78 females and 25 males. The majority of participants were aged 31-40 (58), followed by those aged 41-50 (22), 25-30 (11), 20-24 (7), and 50+ (5). In terms of teaching experience, 51 participants had 10-20 years of experience, 23 had 4-10 years, 19 had more than 21 years, and 10 had 1-3 years. Regarding teaching areas, 11 participants were from primary education, 35 from lower-secondary education, 42 from upper-secondary education, and 15 from tertiary education. Most participants worked in public schools (91), while 12 were employed in private schools.

Instruments

The instruments used in this study were carefully selected and adapted to align with the research objectives and theoretical framework. For the quantitative phase, multiple-items scales developed by Fundi et al. (2024) were employed to measure various constructs related to EFL teachers' readiness for AI integration. The instrument was adapted from well-established works in the field to ensure validity and reliability. Specifically, items measuring AI readiness and AI ethics were adapted from Wang et al. (2023), while

perceived threats from AI were adopted from the study by Mirbabaie et al. (2022). Items on attitude toward AI, confidence in learning AI, and AI relevance were drawn from Ayanwale et al. (2022), and interest in AI was measured using items adapted from Mason and Rich (2020). Subjective norm items were sourced from Chai et al. (2021). The questionnaire utilized a six-point Likert scale, which, as suggested by Taherdoost (2019), is optimal for achieving high reliability and validity in data collection. A detailed breakdown of the questionnaire, including the specific items for each construct, is provided in the Appendix.

For the qualitative phase, semi-structured interviews were conducted to provide deeper insights into the findings of the quantitative analysis. The interview protocol was designed to overlap with the items in the questionnaire, ensuring alignment with hypotheses driven by the theoretical framework of the Technology Acceptance Model (TAM). This allowed the qualitative data to complement and expand upon the quantitative findings, offering a richer understanding of the participants' experiences, attitudes, and perceptions regarding AI integration in their teaching practices. The semi-structured format provided flexibility to explore specific themes in greater depth while maintaining consistency across interviews

Procedure

The data collection process for this study was carried out in two sequential phases, following the explanatory sequential mixed-methods design, as depicted in Figure 3 below.

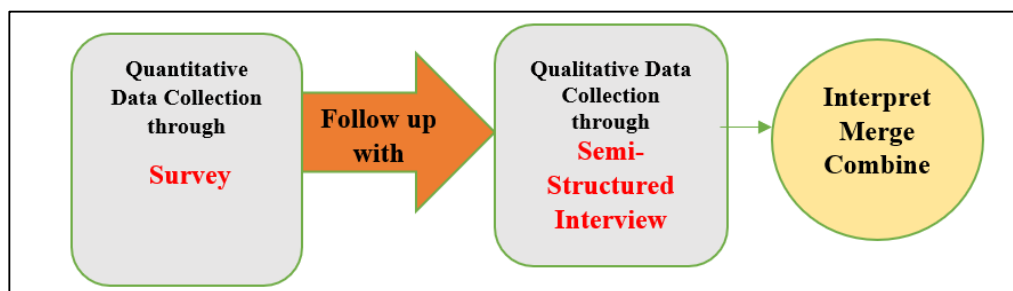


Figure 3. The Study Procedure for Explanatory Sequential Mixed-Methods Design

In the quantitative phase, data were gathered using a six-point Likert scale multiple-item questionnaire (Fundı et al., 2024) administered to 103 in-service EFL teachers. The questionnaire was distributed via Google Forms, leveraging the snowball sampling technique to maximize reach and sample diversity. The link to the questionnaire was shared through WhatsApp, social media platforms, and Facebook groups, enabling participants to forward it to their peers. This approach facilitated the recruitment of a broad range of participants across various teaching levels and contexts.

The qualitative phase followed as a complementary step, with semi-structured interviews conducted among a subset of 10 participants who had completed the questionnaire and expressed their willingness to volunteer for further participation. The interviews, lasting 30 to 40 minutes each, were conducted via Zoom, ensuring accessibility and convenience for the participants. Each session was recorded with the participants' consent to ensure accurate data collection for subsequent analysis. Ethical considerations were prioritized throughout the data collection process. An informed consent form was provided to all participants, clearly outlining the purpose of the study, the confidentiality of their responses, and their right to withdraw at any stage. This two-phase data collection procedure ensured a robust and comprehensive understanding of Turkish in-service EFL teachers' readiness for AI integration by triangulating quantitative and qualitative data.

Data Analysis

As quantitative part of the study, the data were analyzed using the statistical software SPSS, where descriptive analyses were conducted to summarize the central tendencies and distributions of the variables, followed by Multiple Regression Analysis to examine the relationships between the independent and dependent variables in which the model presented in Figure 2 was examined.

Before testing the model, the reliability of the variables was assessed using Cronbach's alpha internal consistency coefficients (Creswell, 2015). These coefficients were found to be 0.84 for Subjective Norms, 0.84 for Ethics, 0.82 for Threats, 0.85 for Relevance, 0.87 for Interest, 0.83 for Confidence, 0.88 for Attitude, and 0.89 for AI Readiness. All variables demonstrated high internal consistency (Field, 2012). Prior to the analysis, assumptions of autocorrelation and multicollinearity were tested. Durbin Watson values ranged between 1.969 and 2.400, VIF values were between 1.002 and 2.143, and Tolerance values ranged from 0.467 to 0.998. These results indicated that the assumptions for regression analysis were met (Field, 2012). Consequently, multiple regression analyses were conducted, and the results were reported in the Results section. The analyses were performed using the SPSS 22 software package, with a significance level set at $\alpha=0.05$.

The qualitative data were analyzed using MAXQDA 24 Pro, employing Qualitative Content Analysis (QCA) with a deductive approach to test the hypotheses (Selvi, 2019). This method allowed for a systematic exploration of Turkish EFL teachers' readiness for AI integration by utilizing predefined coding categories based on the theoretical framework of the study. Following Mayring's (2014) guidelines for QCA, a structured coding frame was developed, with categories derived from the research hypotheses and interview questions, ensuring alignment with the study's objectives. The deductive approach facilitated the testing of hypotheses by examining the data against pre-established constructs such as Confidence in AI, Interest in AI, AI Readiness, AI Ethics, Perceived Threats, Attitude Toward AI, and Relevance of AI. This approach ensured that the analysis was theory-driven, focusing on validating relationships proposed in the study, such as the influence of attitudes and external variables on AI adoption. MAXQDA supported the organization and analysis of qualitative data, enabling a systematic categorization of text passages and the identification of patterns. By merging qualitative findings with quantitative results in this explanatory sequential mixed-methods study, any incongruencies between datasets were cross-checked and interpreted. This integrative analysis provided rich, context-sensitive insights into teachers' perceptions, attitudes, and practices regarding AI integration, contributing to a nuanced understanding of the factors shaping their readiness. The rigorous and systematic use of QCA ensures the trustworthiness and replicability of the findings, as recommended by Selvi (2019).

Results and Discussion

In this section, the findings of the quantitative data analysis are presented to provide an overview of teachers' current status regarding AI readiness and its integration into their classrooms along with an explanation of the factors influencing their readiness. The descriptive statistical results offer insights into the state-of-art preparedness and perceptions of teachers toward AI adoption. Subsequently, the relationships among the scales were examined through the hypothesized research model (Figure 2), grounded in the Technology Acceptance Model (TAM), using multiple regression analyses to answer the first three research questions. To gain a deeper understanding of EFL teachers' AI readiness, qualitative data from semi-structured interviews were analyzed using deductive coding. This approach was employed to identify potential congruencies between the quantitative and qualitative findings. The results derived from the codes and subcodes in the qualitative data, for the last research question, are presented following the quantitative analysis, offering a comprehensive perspective on the current state of AI readiness among teachers.

Quantitative Data Results

Table 3

Descriptive Statistics of the Results

	<i>n</i>	Minimum	Maximum	Mean	Std. Deviation
Subjective Norms	103	1,00	6,00	2,97	1,18
Ethics	103	1,00	6,00	4,32	1,01
Threats	103	1,00	6,00	3,64	1,17
Relevance	103	2,40	6,00	5,00	0,75
Interest	103	1,40	6,00	5,13	0,82
Confidence	103	1,00	6,00	4,66	1,03
Attitude	103	1,75	6,00	4,95	0,89
AI Readiness	103	1,00	6,00	4,19	1,06

Based on the descriptive results of the scale, the participants show strong interest ($M=5.13$), relevance ($M=5.00$), and positive attitudes ($M=4.95$) toward AI. They also demonstrate a good understanding of AI ethics ($M=4.32$) and confidence ($M=4.66$) in learning AI-related concepts. Besides their high interest in learning and exploring AI tools, participants generally feel confident in their ability to learn and facilitate AI learning in classrooms. However, the slightly higher standard deviation ($SD=1.03$) indicates some variability, with a few participants potentially feeling less confident. Also, they think that AI usage is highly important and relevant in both their professional and personal lives when looked at the high mean value of relevance. This suggests a strong acknowledgment of AI's importance and its potential impact across various aspects of their daily activities and career development. Turkish EFL teachers are mostly aware of the benefits of AI, nevertheless, the relatively higher standard deviation ($SD = 1.06$) in the AI Readiness scale indicates variability among participants, suggesting that while some teachers feel prepared for AI-integrated education, others may lack the confidence or readiness to implement such technologies effectively (Wang et al., 2023). But, it should be noted that the first key determinant to assess the AI readiness of teachers may be to detect whether a lack of knowledge or awareness in AI exists (Ayanwale et al., 2022).

However, some areas need improvement as they pose some potential challenges for teachers to adopt AI Technologies. For instance, the results from the scales subjective norms ($M=2.97$) and perceived threats ($M=3.64$) reveal some challenges, such as limited support from peers and institutions and moderate level of concerns about AI's potential downsides such as replacing human teachers, reducing interpersonal interactions, and diminishing cognitive skill. The mean score of AI Ethics ($M=4.32$) is high, indicating good awareness of issues like privacy, digital ethics, and responsibilities. The low standard deviation reflects consistent responses among participants. Additionally, while AI readiness ($M=4.19$) is decent, it could be enhanced with targeted training and resources because AI is such a black box which is difficult to understand and implement in the professional context without a sufficient knowledge or interest (Luckin et al., 2022).

While the descriptive results provide an overview, a more robust interpretation through inferential statistics requires examining the relationships among the constructs using multiple regression analyses within the framework of the TAM.

Table 4

Inferential Statistics of the Hypothesized Research Model through Multiple Regression Analysis

The Results of the Model				
Independent Variable	Dependent Variable	Standardize B	t	p
Model 1 = F=14,640, p<0,001, R=0,55, R²=0,31				
Subjective Norms	Relevance	,079	,913	,363
Ethics	Relevance	,404	4,645	,000
Threats	Relevance	-,332	-3,971	,000
Model 2 = F=8,335, p<0,001, R=0,45, R²=0,21				
Subjective Norms	Interest	-,091	-,973	,333
Ethics	Interest	,384	4,113	,000
Threats	Interest	-,248	-2,756	,007
Model 3 = F=9,356, p<0,001, R=0,47, R²=0,22				
Subjective Norms	Confidence	,151	1,642	,104
Ethics	Confidence	,373	4,044	,000
Threats	Confidence	-,151	-1,704	,092
Model 4 = F=65,107, p<0,001, R=0,82, R²=0,66				
Relevance	Attitude	,636	7,937	,000
Interest	Attitude	,313	3,670	,000
Confidence	Attitude	-,105	-1,376	,172
Model 5 = F=37,371, p<0,001, R=0,52, R²=0,27				
Attitude	AI Readiness	,520	6,113	,000

Table 4 presents the coefficients of the research model. The model results are as follows: The variable Relevance is positively predicted by Ethics (Standardized B = 0.404, p < 0.001) and negatively predicted by Threats (Standardized B = -0.332, p < 0.001). The variable Interest is positively predicted by Ethics (Standardized B = 0.384, p < 0.001) and negatively predicted by Threats (Standardized B = -0.248, p < 0.01). The variable Confidence is positively predicted by Ethics (Standardized B = 0.373, p < 0.001). The variable Attitude is positively predicted by Relevance (Standardized B = 0.636, p < 0.001) and Interest (Standardized B = 0.313, p < 0.001). The variable AI Readiness is positively predicted by Attitude (Standardized B = 0.520, p < 0.001). The visualization of the model results is presented in Figure 4. The dashed lines in the model represent non-significant coefficients.

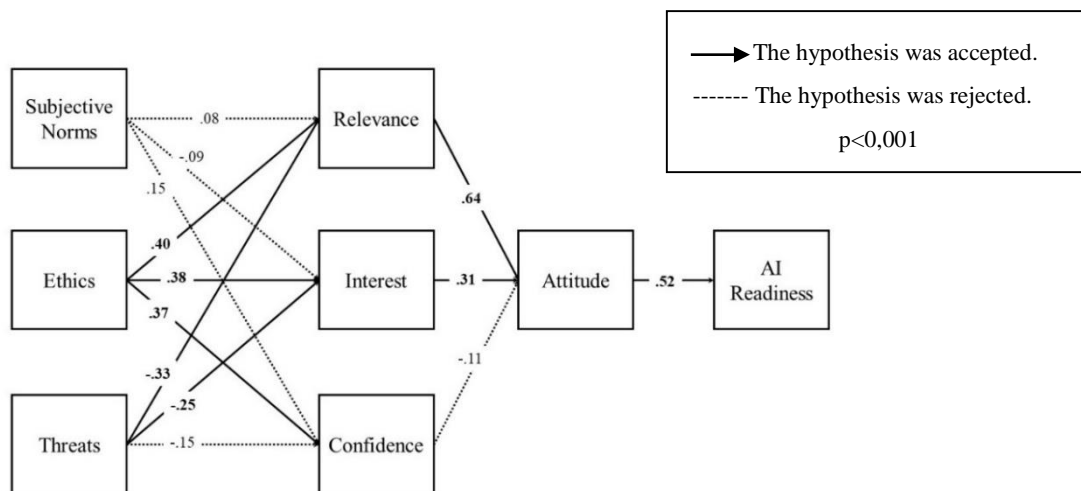


Figure 4. Research Model and Associated Coefficients

H1: External variables (Subjective Norms, AI Ethics, Perceived Threats) significantly influence Perceived Usefulness of AI technologies for Turkish EFL teachers.

H2: External variables (Subjective Norms, AI Ethics, Perceived Threats) significantly influence Perceived Ease of Use of AI technologies for Turkish EFL teachers.

In the research model, the external factors were defined as Subjective Norms, Ethics, and Threats regarding AI. The items regarding Subjective Norms mostly addressed the school support, peer encouragement, leadership emphasis, and collegial attitudes, all of which highlight the influence of an external stimulus over the teachers as unique individuals. Also, some ethical issues regarding AI were the second potential external factor affecting the teachers' perceptions. The items on the scale were about digital ethics awareness, ethical responsibilities, data privacy, and compliance with norms. The third potential external factor was the perceived threats of AI such as reduced teacher importance and less face-to-face interaction, decreased cognitive abilities, and risk of mental laziness. Such pitfalls were predicted to affect teachers' perception as to the usefulness of AI technologies and their ease of use in hypotheses 1 and 2.

As shown in Figure 4, PU is represented on the scale of Relevance, as both share common foundations regarding their usefulness in professional contexts. Basically, teachers try to rationalize their willingness to use AI through the items about practical usefulness, personal relevance, career connection, and global impact. On the other hand, PEOU is represented with the interest and confidence scales since confidence reflects the ability to facilitate AI learning in class and understand its basics, while interest encompasses a curiosity to learn more about AI, understand its mechanisms, explore its cognitive functions, and pursue further studies in the field.

Based on the findings, Ethics positively predicts Relevance (PU) ($\beta=0.404, p<0.001$ \(\beta = 0.404, p < 0.001\)), indicating that a stronger understanding of AI ethics enhances teachers' perception of AI's usefulness. Threats negatively predict Relevance ($\beta=-0.332, p<0.001$ \(\beta = -0.332, p < 0.001\)), which suggests that perceived threats, in turn, diminish the perceived usefulness of AI. However, no significant influence by Subjective Norms ($\beta=0.079, p=0.363$ \(\beta = 0.079, p = 0.363\)) was not detected on relevance.

When it comes to the PEOU with the constructs of Interest and Confidence, Ethics positively predicts Interest ($\beta=0.384, p<0.001$ \(\beta = 0.384, p < 0.001\)), showing that ethical awareness fosters interest in AI technologies. Threats negatively predict Interest ($\beta=-0.248, p=0.007$ \(\beta = -0.248, p = 0.007\)), indicating that perceived threats reduce interest. Nevertheless, Subjective Norms ($\beta=-0.091, p=0.333$ \(\beta = -0.091, p = 0.333\)) have no significant influence on interest. PEOU is closely linked to the teachers' interest because it is a fact that if they lose their interest in learning new AI technologies, they will not realize the easiness of AI tools, and even consider integrating them into their classes. On the flip side of the PEOU, the construct of confidence refers to how sure teachers are that they can use AI technologies effectively in their workplaces (Davis & Venkatesh, 1996). It includes their confidence in their ability to understand, use, and adapt AI tools in the classroom. As PEOU stands for perceived ease of use, it is evident that this construct is directly related to teachers' perceptions, and confidence plays a critical role in shaping their ability to engage with AI technologies effectively and without difficulty. Confidence reflects their self-assurance in navigating and applying AI tools, which significantly contributes to their perception of ease of use. While Threats ($\beta=-0.151, p=0.092$ \(\beta = -0.151, p = 0.092\)) and Subjective Norms ($\beta=0.151, p=0.104$ \(\beta = 0.151, p = 0.104\)) do not significantly predict Confidence, meaning having an effect, Ethics positively predicts Confidence ($\beta=0.373, p<0.001$ \(\beta = 0.373, p < 0.001\)), suggesting that ethical understanding boosts teachers' confidence in using AI.

In response to research question 1, it can be stated that external factors have various impacts on EFL teachers' perceptions of AI usefulness and its ease of use. Ethics is a strong driver of Relevance (PU), Interest, and Confidence (PEOU), which shows how important it is for creating good views of AI.

Conversely, threats that EFL teachers perceive have a negative effect on Relevance and Interest but not on Confidence. Thus, it shows that the concerns about the AI's potential drawbacks may shadow the EFL teachers' perception of usefulness or diminish their interest level in line with their perceptions of AI's ease of use. Threats are considered an external factor influencing EFL teachers' perceptions of AI's usefulness and ease of use, making them an indirect but significant negative predictor of AI readiness in this study. However, previous research identified threats as a direct predictor of actual AI usage, with no significant impact on AI readiness (Chiu & Chai, 2020; Fundi et al., 2024). The only external factor that does not have a significant influence on teachers' perceptions of AI usefulness and ease of use is Subjective Norms. The support from their workplace or colleagues does not have any positive or negative impact on the EFL teachers' perceptions of AI.

H3: Perceived Usefulness positively influences Turkish EFL teachers' behavioral intention to use AI technologies.

H4: Perceived Ease of Use positively influences Turkish EFL teachers' behavioral intention to use AI technologies.

H5: Perceived Usefulness positively influences Turkish EFL teachers' actual usage of AI technologies.

H6: Perceived Ease of Use positively influences Turkish EFL teachers' actual usage of AI technologies

In regard to the hypotheses 3, and 4, it should be noted that Behavioral Intention does refer to not only teachers' intention to use AI but also to their attitudes according to the hypothesized research model. Although the attitudes have a partial effect on the ultimate use as mentioned in Davis and Venkatesh (1996), it is posited that EFL teachers' responses in the scale Attitude encompass teachers' thoughts, emotions, and behaviors, as well (Gawronski, 2007). Behavioral Intention and Attitudes of teachers are inextricably bound to each other. When checked whether any effect of teachers' perceptions in terms of usefulness and easiness of AI usage exist on teachers' behavioral intention including their attitudes, it could be seen that Relevance (PU) positively predicts Attitude ($\beta=0.636, p<0.001$ | $\beta = 0.636, p < 0.001$), suggesting that teachers who perceive AI as highly useful are more likely to develop positive attitudes toward its use. However, this can not be the only determinant alone. For instance, some teachers may use AI tools or AI systems although they do not have a positive attitude towards AI, however, they may think that those tools are still useful and relevant for their professional (Davis & Venkatesh, 1996, p. 21).

And for hypotheses 5 and 6, the results clearly show a partial support, which implies an indirect influence of teachers' perceptions of usefulness and ease of use on their integration of AI in their classes. Specifically, Perceived Usefulness (Relevance) indirectly contributes to AI Readiness through Attitude ($\beta = 0.636, p < 0.001$), while Perceived Ease of Use (Interest) positively impacts Attitude ($\beta = 0.313, p < 0.001$). However, Confidence, another Ease of Use construct, shows a negative but non-significant association with Attitude ($\beta = -0.11, p = 0.172$) by weakening its direct contribution to AI Readiness. For example, a teacher's attitude toward using AI is more likely to be positive if they see AI technologies relevant to their professional goals, such as employing an AI application to deliver individualized student feedback or enhancing the teaching environment with various AI-driven tools. Notwithstanding this, their confidence in using these tools, particularly when confronted with some technical issues, may be affected by their lack of knowledge, which in turn may result in a reluctance to fully adopt these tools. Confidence could be denominated as an indirect factor in teachers' adoption of AI technologies, although its influence is not significantly defined. So, the second research question is answered by acknowledging the significant influence of both relevance and interest on teachers' attitudes driving their readiness to integrate AI technologies in the classroom based on the results. It is also good to remind that teachers' responses in the scales of relevance, interest, and confidence form their perceptions as to the usefulness or easiness of the AI technologies, which are believed to trigger their attitudes toward AI and the ultimate goal as the actual usage, contrary to the common concept that attitudes come before beliefs (Weiner, 1986; cited in Davis, 1989) (see Figure 4). In line with the TAM, the research model supports the idea teachers' self-reported ideas, perceptions in other words both indirectly

and partly impact their AI actual usage of AI technologies in their educational settings. Put differently, when integrated with the descriptive results of the scales, respectively, Relevance (Mean = 5.00), Interest (Mean = 5.13), Confidence (Mean = 4.66), Attitude (Mean = 4.95), it is presumably said that teachers show strong interest, confidence, and awareness of AI's relevance, indicating they are on the right path toward readiness. However, these factors do not fully mediate their AI readiness, as resulted in the related scale AI Readiness (Mean = 4.18), showing that teachers are not fully ready yet and may require additional training and support due to some other confronting variables or some external variables such as the gaps in Subjective Norms (Mean = 2.97), the barriers like Perceived Threats (Mean = 3.64).

H7: Turkish EFL teachers' behavioral intention including their attitudes positively influences their actual usage of AI technologies.

Based on the inferential analysis results, it is evident that Hypothesis 7 is supported by the research model. The regression model shows that Attitude significantly predicts AI Readiness ($\beta = 0.520$, $t = 6.113$, $p < 0.001$), with the model explaining 27% of the variance in AI Readiness ($R^2 = 0.27$), which indicates that teachers' behavioral intentions (as measured by their attitudes toward AI) strongly influence their actual readiness to use AI in their professional routines. The items in the Attitude scale reveal that teachers are generally open to using AI in their daily life and teaching. They also recognize the importance of preparing students to leverage AI in their future careers. This positive attitude reflects a strong desire to incorporate AI into teaching practices, aligning with the hypothesized model where behavioral intention is a precursor to actual usage. The AI Readiness scale measures the practical aspects of teachers' ability to use AI, including understanding how AI works, distinguishing tools, integrating technologies, collaborating with peers, and recognizing strengths and limitations. The strong influence of Attitude on AI Readiness suggests that while teachers may not yet fully utilize AI, their positive behavioral intention is a significant step toward actual integration. Behavioral Intention (Attitude) (Standardize B=0.520) serves as a critical mediator between perceived ease of use/usefulness and actual system use (AI Readiness), which is a good motive for its alignment of the TAM within the study.

In contrast to the results of the previous study conducted on the same research topic (Fundi et al., 2024), teachers' attitude is a significant predictor for their AI readiness. Such findings may result from the accurate positioning of attitudes within the model, allowing them to effectively predict and align with the hypotheses.

When we look at the descriptive results of the scales Attitude (M=4.95) and AI Readiness (M= 4.19), they demonstrate that Turkish EFL teachers exhibit strong behavioral intentions to use AI, as reflected in their positive attitudes. These intentions significantly influence their readiness to integrate AI into teaching. However, for actual usage to be fully realized, ongoing support, confidence-building initiatives, and collaborative opportunities are essential. This finding underscores the critical role of fostering attitudes to drive actual usage: AI adoption in educational settings.

H8: External variables (Subjective Norms, AI Ethics, Perceived Threats) indirectly influence Turkish EFL teachers' actual usage of AI technologies through perceived usefulness, perceived ease of use, and behavioral intention by them.

For the final hypothesis, it can be concluded that Subjective Norms did not have a significant direct impact on EFL teachers' actual usage of AI. However, as Subjective Norms are likely to influence teachers' perceptions of AI indirectly, this aspect was further explored and discussed within the qualitative data findings.

Qualitative Data Results

The qualitative data from ten semi-structured interviews (Appendix 2) was first analyzed deductively using predefined parent codes aligned with the research model and questionnaire scales to evaluate congruency. Then, new emerging themes and subcodes were created through an inductive approach. The parent codes are, respectively, Subjective Norms, AI Ethics, Perceived Threats of AI, Interest in AI, Confidence in AI Learning and Facilitation, Attitudes Toward AI, and Relevance of AI. The subcodes were discussed in detail under each parent code to capture participants' insights and observations about their personal backgrounds and professional environments.

In the interviews, particular emphasis was placed on ensuring a diverse representation of teacher participants' working contexts to gain a comprehensive understanding of the unique dynamics within each setting. Of the ten participants, four were from upper-secondary education (public high schools), two were from lower-secondary education (1 from a public and 1 from a private school), one was from primary education (public school), and three were from tertiary education (state universities). Among them, six EFL teachers had already integrated different AI tools into their classes, which could be said to position them as leaders in terms of fostering innovation and setting examples for effective AI integration in education. However, among the rest four participants, half were aware of AI tools but had not implemented them in their classrooms, while the others even lacked knowledge about both the potential and capabilities of AI. The findings were organized under the main codes and further analyzed within the subcodes, supported by excerpts from the participants.

Subjective Norms

Subjective norms, encompassing social and environmental influences, were reflected to some extent in the participants' AI backgrounds. While the quantitative data revealed no significant effect of subjective norms on teachers' perceptions of AI, such as Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), some participants highlighted that social and environmental factors could be one of the key drivers for their actual AI usage. One participant, having started to work in a state university one and a half years ago, stated that as her colleagues continued discussing AI around her, it gradually pushed her to give AI a chance and overcome her bias toward it over time, as seen in the following excerpt:

I became acquainted with artificial intelligence only very recently. My interest, well... the concept of artificial intelligence... Constantly hearing about it from my surroundings or referring to it myself... I've only started becoming familiar with these topics very recently. It's probably not even been a year for me, speaking from my own experiences. In fact, I had a lot of prejudices about it. However, I've noticed that these prejudices have gradually broken down as I've had to use AI actively in my lessons...for instance, when giving feedback to students, writing an academic article, preparing a slide, or seeking ideas for a lesson. (P3)

Another participant working at a public lower-secondary school underscored the importance of the unique contextual settings. Despite her extensive AI literacy and being a PhD student, she did not feel confident integrating AI tools into her classes. Moreover, she rated her colleagues' AI awareness as five out of ten in her workplace by highlighting some contextual barriers such as the current ELT curriculum for elementary schools or the negative washback effect of the high school entrance exam (LGS) on students in their EFL classes with the following sentences:

They are individuals who are actually quite open to development when you look at their personalities. Currently, their level of knowledge is not sufficient to create solid awareness. So, I would rate them between 4 and 5, around 4 or 5. However, I believe they would excel if they received proper training. I can confidently say this about my colleagues, especially those I work with at my school. They are open to innovation and change. However, there is a certain cautiousness. Additionally, the current

system or curriculum can also constrain us in this regard. For example, with eighth graders, we are focused on preparing for the LGS (High School Entrance Exam), which means we are constantly solving test questions. In such a scenario, while trying to highlight students' (testing) skills, we might wonder how much we can truly integrate this (AI). Moreover, we have a curriculum to complete within a limited timeframe. Certain factors restrict us, and as a result, it does not provide a free or flexible perspective. (P8)

Recognizing his lack of readiness for AI integration, another participant, who works at a high school in a rural area of Türkiye with limited technological resources, highlighted the infrastructural challenges and criticized the working conditions:

If I wanted to use artificial intelligence, there are many areas where I would face significant challenges. As you mentioned, tools like smartphones or a computer lab are necessary. The required infrastructure is definitely not in my place. Currently, at my school, I'm not ready, and it seems like the students aren't ready for artificial intelligence either. At least my students. That's why, I haven't integrated it yet. (P9).

These excerpts from the interviews provide evidence supporting the hypothesis that Subjective Norms indirectly influence EFL teachers' use of AI by shaping their perceptions of its usefulness and ease of use. Based on the participants' experiences, it can be inferred that Subjective Norms may either facilitate or hinder EFL teachers' readiness for AI integration, depending on whether they lead to positive or negative conceptualizations of AI. This finding overlaps with the previous studies emphasizing that subjective norms are a strong predictor of individuals' AI readiness (Fundi et al., 2024; Na et al., 2022). Put differently, subjective norms based on social pressure or institutional support can ignite teachers' curiosity or motivation, which in turn shape their perceptions and result in either AI acceptance or rejection.

AI Ethics and Perceived Threats

As the other external factors within this study, AI Ethics and Perceived Threats were found to be highly intertwined with each other. Although coded separately, teachers often justified certain ethical concerns by referencing the pitfalls of AI usage, which could be regarded as supporting evidence for the quantitative data results, indicating that ethics and threats significantly influence teachers' perceptions of usefulness (PU) and ease of use (PEOU). Teacher participants mostly drew attention to some ethical issues such as data privacy and security, copyright issues, academic integrity and plagiarism, including students' increasing potential of cheating.

One participant (P7) expressed his concern as to the data privacy and security with a sound of hesitation to use AI tools in his workplace:

Okay, so for my personal life, I sometimes share my own personal issues in my life or my relationship with people or for my students. I, in the end, type in the grammatical topics or the lexis and I do not know if the developers of those AI tools will use this information for ill-mannered purposes in the future. I know that AI collects this information. And, it stores them in the database. In other words, you could say it's also corpus. So, when we share personal information, how safe are we really? Because we are at the mercy of those developers of those AI tools.

Similarly, another participant shared her concern as to the black box, AI, in terms of their opaque operating system and algorithm (Luckin et al., 2022) with these remarks:

Data privacy, for example, when it comes to sharing highly sensitive information, there hasn't been any such sharing, but when you think about AI, it now has access to everything related to my work. Let's talk specifically about ChatGPT. How could this negatively affect me? I don't know, for

instance. I can't say that I fully know or trust it 100%. Sometimes I think about this, but I don't have extensive knowledge on the subject. (P8)

On the other hand, participants also highlighted the lack of AI ethics education for both students and teachers, which led to the all-pervasive, unconscious use of AI. For students, this often resulted in cheating becoming an inevitable solution, as they were unaware of ethical concerns such as plagiarism.

They (students) should learn about AI ethics. It is important. Ethics is so important, you know, because sometimes when you get information from somewhere while doing homework or another thing, you must know that you cannot copy it directly as it is... You must make some changes on it. So it is the same with AI. Maybe, but they will think, oh, it is just done for me, and I can get it as it is, and they will try to copy it. And I know that we can use AI in all parts of language teaching or in other lessons. But we must know how to use it well. And we must teach the ethics of it, as well. Otherwise, our work will not go beyond copying. It won't. It will not be an imaginary, productive, effective way of teaching or learning. But, AI is useful. I know. And we can make use of it everywhere. (P10)

For students' perspective. I want to think like a student. So, it's really easy to cheat. Yeah, but it can be dangerous because, in the end, they have some exams. So, when you have the exam, maybe they can be confused about it. So, they can get used to having everything the easier way. (P5).

Wang et al., (2023) argued that a high level of AI readiness significantly reduces the perceived threats associated with AI. Building on this perspective, it can be inferred that perceived threats are predominantly observed among teachers who have limited experience with AI technologies in the classroom. Nevertheless, consistent with the quantitative data findings, AI threats, found within the study, negatively influence EFL teachers' perceptions, ultimately contributing to their low levels of AI adoption. Among the identified threats, EFL teachers expressed concerns that AI could negatively impact students' language learning processes by diminishing their critical thinking skills ($f=6$), shortening their concentration spans, and fostering laziness. Additionally, they highlighted that AI might hinder their own creativity in teaching practices and diminish teachers' foreign language competencies ($f=10$), as some teachers may develop an overreliance on AI tools.

Privacy problem can be addressed for people and students and thinking about critical thinking. There is a problem again about it because if you don't make up a thing by using your brain, it can harm your critical skills of course, because copying harms the critical thinking part of the wellbeing of a person. So yes, it's another threat. We can say critical thinking is harmed by AI usage. But again if I say... if a product done by AI tool is, you know, gone over by the critical thinking of the person and again reproduced, let's say maybe the person can play with words or sentences or other things, I don't know for a PR or the photo again, after AI, the person can play with the photo in another program. So, we can say critical thinking may not be harmed so much. But if they (are used to) attack us, it is a threat to people's critical thinking. (P10)

Relevance of AI

Regarding the PU of teachers, the relevance of AI covered various benefits and opportunities for EFL teachers. Based on their insights, EFL teachers emphasized that AI tools significantly simplified their professional and personal tasks, making AI highly relevant and a key predictor of actual usage, thereby demonstrating their readiness for AI integration, as in the previous studies (Ayanwale et al., 2022). Perceived usefulness of AI also forms teachers' attitudes, thereby leading to their acceptance of AI technologies.

Of course, something that would normally take me 10 days to complete, I can now plan in 5 days. It saves me a significant amount of time. It also opens up new perspectives for me, allowing me to think in ways I hadn't considered before. It opens doors to new ideas and opportunities. When I approach it professionally for classroom application, for example, and ask, 'How can I teach this?' I genuinely receive inspiring answers. For instance, when I interact with ChatGPT, it provides guidance in that sense. I can say that it serves as a good advisor for me. (P8)

One teacher, who is a novice in the profession with a 2-year-experience, responded to the ones criticizing AI for its lack of emotion with the following sentences:

As long as I can take the information, synthesize it, and use it, I don't feel the need to form an emotional bond... An emotional bond with anyone. It's actually better that way because emotional bonds can sometimes be exploited. For example, students might say, 'We like this teacher, so let's convince them to let us off the next lesson or postpone the exam so we can study.' Now, try doing that with a robot. This is a very simple example, but in my opinion, AI could be a solution, especially in a country where merit is often an issue. Let AI handle it. Let it teach the class, monitor students, prepare exams, and even write reports. I'm sure it will be much better, teacher. The education system, not just in our country but globally as well, will undoubtedly progress further. (P1)

Despite the eager tone of voice to integrate AI tools, the participant has not integrated any AI tools in his classes yet due to some subjective norms such as insufficient collaboration with colleagues or infrastructural barriers in his workplace. Teachers' PU addressing the issue of Relevance of AI positively influences their attitudes motivating them to act out in a proactive AI-integrated education, however, the effects of subjective norms may still remain as a powerful factor in shaping their behavioral intentions (Ayanwale et al., 2022).

Teachers' Interest and Confidence in Learning and Facilitating AI

Under the parent codes of Interest and Confidence, some subcodes such as personal, professional interest, and future learning were discussed while some success stories of teachers and the challenges they faced during their usage of AI tools were analyzed to understand their perceived confidence. The results show that only three EFL teachers felt confident using AI in their classes, demonstrating an awareness of both the opportunities and challenges it presents. And, the common point of these three teachers was that they all were young and novice in their profession by holding a personal interest in AI.

I belong to Generation Z; I was born in the 2000s. That's why I have a good relationship with technology. For this reason, I think I'm relatively better with artificial intelligence compared to my peers or colleagues. As I mentioned, being part of Generation Z and enjoying keeping up with technological advancements, I believe I have some basic knowledge in these areas. (P2)

Yeah. In terms of personal improvement, I used generative AI applications for conversation when I'm alone or when I am too confused with my own ideas. I use. I, I ask most of ChatGPT what may be the reasons of my thought process and what are the psychological explanation of this thoughts, what is the methodology background of it? And when it gives me a schema I start to say, oh, it makes sense so I can moderate myself better. (P7)

As understood from the excerpts above, interest in AI is strongly related to AI readiness, but it would be an overstatement of the current situation if we claimed that interest is the most dominant determinant. Some participants who have a personal interest but come across with some contextual barriers may still feel unconfident about adopting AI technologies, as in the following:

Based on your interest, if you are interested and if you play with it, you can learn more. It is like that. If you are not interested or if you are too busy to play with it... Let's say it is like an online game, if you don't have time and money to play it, unfortunately, you don't learn. You cannot learn. I don't say you don't learn because you cannot learn. There are some restrictions. Time restrictions, money restrictions, and economic restrictions. I said if you don't pay a lot for an application, you cannot get a professional version of it. And if you cannot get a professional version, you don't know the deep side of the sea. There is the sea... ocean, but you can see only the surface. Yes, there is no deep knowledge of it. Yes, I know the surface, like all the teachers and the students. But, I don't know the depth of it. Because there are not enough education, educational things. And, I don't have enough time .(P10)

I can plan for this, but how should I put it? These AI tools need to be purchased and integrated into the system, and a collective decision needs to be made as a department. To ensure equality and homogeneity among classes, for instance, using AI tools in one class but not in another can quickly create a perception of unfair treatment. (P8)

For example, let's not take the primary school students as an example, but the high schoolers or university or preparatory students. ChatGPT 4.0 developed new mechanism and it is talking to chat GPT. It is not recording your voice, you're literally talking to it. And you can talk to chatGPT for 10 minutes unless you didn't get upgraded version or version of it. So, the challenge is that AI tools are beneficial to some extent, but after that, you have to buy it. And not everyone has the financial well-being to buy it. (P7)

Although AI technologies provide many benefits to educational settings, such as individually-tailored teaching and learning environments, more meaningful and instant feedback enhancing the learning process, and innovative ideas for teachers' differentiated instructions, some teachers still show reluctance to use them. This reluctance is not attributed to a lack of personal or professional interest but rather to a lack of confidence (Emmanuel Philip Ododo et al., 2023), stemming from subjective norms, such as inadequate institutional resources or contextual restrictions (Fundi et al., 2024).

On the other hand, all ten teachers were eager to improve themselves in terms of AI literacy, seeing that it is a must for adapting to the evolving demands of modern education and staying relevant in their profession. They stated that they would definitely continue to dig deep in the AI field and challenge with themselves in terms of adapting to this significant global transformation in the world of education.

I feel that I need to improve myself; I see it as a necessity because, as you can observe every year, the students we encounter are truly part of a tech-savvy generation. I've noticed that the old methods, like making them write notes in class, not only bore them but also stifle their creativity. They no longer want to pick up a pen and write. What does this mean? They want to bring their iPads, their laptops, and actively use them under the given conditions. That's why I believe I need to develop myself in this area. And I'm not just talking about ChatGPT or just writing activities. I'm also referring to speaking, listening, grammar instruction, and integrating these aspects into lessons in some way. Even in the simplest activities, I notice the excitement in students' eyes. For instance, when I occasionally hand out a paper-based activity, I see their enthusiasm. When they hold their phones, I create a competitive environment, and their engagement becomes evident. (P3)

Attitudes Toward AI

Due to teachers' PU and PEOU, representing their perceptions on the AI relevance, interest, and confidence, it was found out that except for one teacher (P1), nine out of ten held a positive attitude toward AI by realizing its capabilities. However, it was clearly seen that attitude is not enough alone to result in AI usage.

Therefore, within the TAM, the research model provided us to understand the factors underlying EFL teachers' reluctance in adopting and integrating AI into their classes. But again, subjective norms, defined as subjective norms, perceived threats and some issues related to AI ethic, within this study, are some of the determinants behind their attitudes and their behavioral intention towards their readiness. Attitude is only one of the predictive factors for AI readiness but it is itself influenced by various direct and indirect forces such as lack of teacher training, changing curriculum, insufficient financial resources, or outdated frameworks (Kaya et al., 2024; Yue et al., 2024).

The following excerpts from one participant who has a positive attitude, but has not fully integrated AI technologies into his classes due to some insufficient infrastructures in his workplace:

Humans are flawed beings, teachers. If a more flawless robot can teach the lesson in my place, I'd say let it come and do it. (P2)

Conversely, a highly motivated novice teacher narrated his success story as in the following:

But they want to have interaction with the applications, with smartware, with technology. So, we are not enough anymore. That's why it really motivates me to use AI because whenever I open an application on a smart board, there I start to shine. And, they say 'oh my God' ... it's like a web-based AI application. And say, "Let's go, let's play this, this game, or let's make this activity." And, the more they emphasize the fun of learning a foreign language, the more they learn better, and they feel more comfortable with it. Also, as I stated before, you know that I have a habit when we learn vocabulary... If it will not take much time, I look up the etymology of the word, like from what origin it comes from Latin, Greek, or French. AI tools. Yeah, AI tools explain this so beautifully. Whenever students understand oh where that word comes from, it stays in their minds. So, it enables more... enable learning to a great extent. We, teachers, cannot even sometimes give to our students (this feeling), unfortunately. (P7)

AI Readiness and Practical Implications for AI Usage

When the EFL teachers shared their perspectives on practical tools and implementation strategies, it was revealed that five teachers expressed readiness to fully integrate AI technologies into their classrooms. In contrast, the remaining participants, despite demonstrating positive attitudes toward AI, indicated that they had not yet implemented these tools in their teaching practices.

Mostly, in the reading part, I created some text, especially in vocabulary, because, in Twee, we can create exercises for students. And I use them. I sent them some reading texts. I use Padlet in my classes, so I sent them texts in Padlet, and I asked them to do some writing about it. So, it was really efficient. (P5)

One of the teachers suggested the idea of students keeping a journal of their writing journey on ChatGPT by using the chatlog. She believed that it would help students see their own writing mistakes through the chat history and turn them into self-regulated learners who direct their own learning path.

But, there are topics, you know, different topics. But I want them to use, for example, the same chatbots again. Yeah, again and again. So, I saw that... I don't know, I'm not very sure. But I think that this way, they feed the ChatGPT with their own data, and I will also ask them to, you know, bring me the types of mistakes they make. So, in the end, they're going to get a report. So, what kind of mistakes do I frequently do? And also, I have started to make the students, you know, benefit from it for some self-learning to help them use it out of the class times. And I'm also doing it in a systematic way like I, I help them, you know, write, you know, on a daily basis. And, I want them to write their

original text and share it with me, and I ask them to correct their mistakes through ChatGPT. And then, they kind of get different types of corrections, and they also paste their corrected versions on a Word document or Google Document, and they share it as an assignment on Google Classroom weekly. (P6)

Some also underscored the importance of collaboration with other colleagues, whether through direct interaction or exchanging ideas, in preparing them to adopt AI technologies.

Once somebody does an activity and implements something, for example, I'm also spreading the news. Okay. I have started to do this, you know... (P6)

When asked about the AI awareness or readiness of their colleagues around, six participants expressed strongly negative feelings, emphasizing the lack of knowledge, interest, or sometimes reluctance due to the perceived threats. Selected excerpts are provided below:

Some of my colleagues especially, you know, a little bit established teachers, you know, in their late professional years, about to retire. There are a few people who are even a little bit biased against ChatGPT. Even ChatGPT. So yeah, they don't like, they don't like the idea of using it or, I don't know, they find it a little bit scary, maybe. Scary or, they feel that they lack the efficacy to use it or they don't feel really confident. I think that most of them are not ready to gain it very clearly. They also state that it's okay. And there are some instructors like me. So, we are discussing, you know, recently actually have been discussing they're Very similar. But most, most of the teachers are like, you know, a little bit maybe illiterate AI. But you know, some, some teachers like me, they're also motivated, they want to learn more. So we need a kind of common action to like. What can we use? And maybe step by step...(P6)

Well, they are aware that AI technology is there, and they are aware that AI enables something new, but they do not know what it is, and they do not know how to moderate or control it. So actually, in sequence, you could hear that. Oh, did you hear? There's a new technology called AI. That's it. They continue their own conventional work...But, most teachers still say that AI is not that effective. It is so effective that they do not even realize it... Well, they're not really good. Like yeah, that they're not really good. When I found Class Dojo when I created all the classes at school, I shared the code with other teachers and said, okay, sir or ma'am, you could give points to students, and the AI will calculate it. When the point is enough, the egg will crack. Or, they can play games with the monsters they have. So, they will have fun learning. And they counted like too many excuses to me. They told me that they did not have time, they did not need that. They're just villagers...(P7)

I can say teachers and students are not much aware of this. They know the name, but they don't know the details and how to use it. They don't know the strategies or these AI tools... Out of 100 teachers, only maybe five are interested. (P10)

Conversely, some sounded more promising for their colleagues:

They are individuals who are quite open to development when you look at their personalities. However, their current level of knowledge is not sufficient to create proper awareness. That's why, I would rate them between 4 and 5, around 4 or 5. But I believe they would excel if they received proper training. I can confidently say this about my colleagues, especially those I work with at my school. They are open to innovation and change in this regard. (P8)

Based on the findings in the study, it can be concluded that Turkish EFL teachers are eager to adopt AI technologies and generally hold positive attitudes toward them. However, the current state of AI integration, in terms of actual usage, does not fully reflect their attitudes due to various external factors that directly or indirectly influence their perceptions and mindsets.

Conclusion

This study aimed to understand the current situation of Turkish EFL teachers' readiness for AI integration and the underlying factors that either facilitate or impede their adoption of AI technologies in their teaching environments. Within the framework of the Technology Acceptance Model (TAM), the survey consisting of different scales, such as Subjective Norms, Perceived Threats, AI Ethics, Relevance of AI, Interest towards AI, Confidence in AI, Attitudes, and AI Readiness, formed the base of the study and the related hypotheses were developed in parallel with these components to find out the determinants influencing teachers' AI Readiness and actual usage.

Based on the data gathered from 103 EFL teachers working across various educational levels through the survey and from an in-depth subset of 10 participants through the interviews provided an overview of the current state of AI readiness among EFL teachers in Türkiye. Based on the descriptive results of the survey, Turkish EFL teachers showed a high level of interest and relevance for AI by having positive attitudes toward it. Moreover, they were quite aware of the AI Ethics and the potential threats that may arise from the absence of these ethical values in the individuals. While some teachers felt confident using AI technologies in their workplace, others expressed uncertainty about integrating AI into their professional lives. The mean value of subjective norms implied that they needed improvement as they refer to some social and environmental influences on teachers' readiness for AI. For a better understanding of the factors shaping their readiness, a research model was tested through multiple regression analysis.

Compared to previous studies conducted on AI readiness, this study was salient with its research model, including the external factors such as subjective norms, AI ethics, and perceived threats of AI, which aligned with the TAM. The influence of these external factors on Turkish EFL teachers' perceptions of AI usefulness (PU) and AI ease of use (PEOU) was analyzed through the hypothesized research model. As indicated by the findings from the inferential analysis of the quantitative data, AI Ethics positively predict teachers' perceptions of Relevance and Interest, playing a significant role in shaping their attitudes and driving their actual usage of AI. On the other hand, perceived threats of AI were found to negatively influence teachers' interest, though they did not have a significant impact on teachers' confidence. It could be said that they cause hesitation in AI usage for some. Among the rejected hypotheses, subjective norms were shown to have no direct significant effect on teachers' perceptions within the research model, contrasting with the findings of previous studies (Fundi et al., 2024). However, insights from the interviews revealed the opposite, highlighting the importance of subjective norms, such as institutional support and other contextual barriers, based on teachers' experiences. Moreover, after merging and synthesizing the qualitative data, it was seen that confidence and interest affected teachers' AI readiness to some extent. They may still show some reluctance to adopt AI technologies due to the subjective norms, which uncover the strong impact of subjective norms on teachers' behavioral intention including their attitudes.

Derived from the qualitative data, few EFL teachers felt confident to adopt and integrate AI technologies into their classrooms. Nonetheless, all Turkish EFL teachers participating in the study, all of whom had a positive attitude toward AI, were understood to be open to development. The participants identified the primary obstacles to their AI readiness as insufficient infrastructural resources, the lack of standardized AI implementation, economic constraints, and the absence of an AI-integrated curriculum. Consistent with the survey responses, teachers demonstrated a strong interest in and understanding of AI's relevance. However, their readiness is hindered by challenges such as limited training opportunities and contextual barriers, including institutional constraints and economic limitations. While their interest and awareness highlight a foundation for potential adoption, these obstacles suggest that more targeted support and resources are essential to bridge the gap between awareness and practical integration.

Limitations and Suggestions for Further Research

The purpose of the study was to explore Turkish EFL teachers' AI readiness through the affective factors shaping their attitudes and behavioral intentions, ultimately influencing their actual usage. The study's primary limitation was the sample size of 103 participants, which limits the generalizability of the findings to all Turkish EFL teachers. While the study provides a valuable overview of the current situation in the EFL context in Türkiye, a larger sample size would have strengthened the reliability and applicability of the results. With a bigger sampling size, the Structural Equation Model Analysis (SEM) would be better to analyze the relationships among the variables.

The research only focused on limited external factors influencing teachers' perceptions as to the usefulness and easiness of AI. More distinctive factors could have been involved in the study as they would provide a more comprehensive understanding of the problematic areas and the barriers before AI readiness.

On the other hand, this study relied solely on self-reported data from teachers. We strongly recommend that future research incorporate systematic on-site observations to provide a more comprehensive and objective understanding.

References

- Ayanwale, M. A., Sanusi, I. T., Adelana, O. P., Aruleba, K. D., & Oyelere, S. S. (2022). Teachers' readiness and intention to teach artificial intelligence in schools. *Computers and Education: Artificial Intelligence*, 3, 100099. <https://doi.org/10.1016/j.caeai.2022.100099>
- Celebi, C., Yilmaz, F., Demir, U., & Karakuş, F. (2023). Artificial Intelligence, AI literacy, Digital literacy, AI literacy scale. *Öğretim Teknolojisi ve Hayat Boyu Öğrenme Dergisi - Instructional Technology and Lifelong Learning*. <https://doi.org/10.52911/ital.1401740>
- Celik, I., Dindar, M., Muukkonen, H., & Järvelä, S. (2022). The Promises and Challenges of Artificial Intelligence for Teachers: A Systematic Review of Research. *TechTrends*, 66(4), 616–630. <https://doi.org/10.1007/s11528-022-00715-y>
- Chaumba, J. (2013). The Use and Value of Mixed Methods Research in Social Work. *Advances in Social Work*, 14(2), 307–333. <https://doi.org/10.18060/1858>
- Chiu, T. K. F., & Chai, C. (2020). Sustainable Curriculum Planning for Artificial Intelligence Education: A Self-Determination Theory Perspective. *Sustainability*, 12(14), 5568. <https://doi.org/10.3390/su12145568>
- Chuah, K.-M., & Kabilan, M. K. (2021). Teachers' Views on The Use of Chatbots to Support English Language Teaching in a Mobile Environment. *International Journal of Emerging Technologies in Learning (iJET)*, 16(20), 223. <https://doi.org/10.3991/ijet.v16i20.24917>
- Creswell, J. W. (2015). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (Fifth edition). Pearson.
- Crompton, H., Edmett, A., Ichaporia, N., & Burke, D. (2024). AI and English language teaching: Affordances and challenges. *British Journal of Educational Technology*, bjet.13460. <https://doi.org/10.1111/bjet.13460>
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319. <https://doi.org/10.2307/249008>
- Davis, F. D., & Venkatesh, V. (1996). A critical assessment of potential measurement biases in the technology acceptance model: Three experiments. *International Journal of Human-Computer Studies*, 45(1), 19–45. <https://doi.org/10.1006/ijhc.1996.0040>
- Eagly, A. H., & Chaiken, S. (2007). The Advantages of an Inclusive Definition of Attitude. *Social Cognition*, 25(5), 582–602. <https://doi.org/10.1521/soco.2007.25.5.582>
- Emmanuel Philip Ododo, J., Anwan, Andikan Ime, M. L., Clement, Idongesit Emmanuel, M., Epoke, Eti Eleng, J. A., & Mfon Constant. (2023). Assessing Social Studies Teachers' Preparedness To Integrate Ai And Elearning Platforms For Enhanced Teaching And Learning Experiences. *Journal of Ethnic Foods*, 10(1), 50. <https://doi.org/10.37547/tajssei/Volume06Issue09-13>

- Farazouli, A., Cerratto-Pargman, T., Bolander-Laksov, K., & McGrath, C. (2024). Hello GPT! Goodbye home examination? An Exploratory Study Of AI Chatbots' Impact On University Teachers' Assessment Practices. *Assessment & Evaluation in Higher Education*, 49(3), 363–375. <https://doi.org/10.1080/02602938.2023.2241676>
- Ferikoğlu, D., & Akgün, E. (2022). An Investigation of Teachers' Artificial Intelligence Awareness: A Scale Development Study. *Malaysian Online Journal of Educational Technology*, 10(3), 215–231. <https://doi.org/10.52380/mojet.2022.10.3.407>
- Field, A. (2012). *Discovering statistics using SPSS: And sex and drugs and rock'n'roll* (3. ed., repr). Sage.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th ed). McGraw-Hill Humanities/Social Sciences/Languages.
- Fundi, M., Sanusi, I. T., Oyelere, S. S., & Ayere, M. (2024). Advancing AI education: Assessing Kenyan in-service teachers' preparedness for integrating artificial intelligence in competence-based curriculum. *Computers in Human Behavior Reports*, 14, 100412. <https://doi.org/10.1016/j.chbr.2024.100412>
- Galbraith, J. I., Moustaki, I., Bartholomew, D. J., & Steele, F. (2002). The Analysis and Interpretation of Multivariate Data for Social Scientists. *Chapman & Hall/CRC*.
- Gawronski, B. (2007). Editorial: Attitudes can be Measured! But What is an Attitude? *Social Cognition*, 25(5), 573–581. <https://doi.org/10.1521/soco.2007.25.5.573>
- Hamed Taherdoost. (2019). *International Journal of Academic Research in Management*. 8(1).
- 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>
- Jiang, R. (2022). How does artificial intelligence empower EFL teaching and learning nowadays? A review on artificial intelligence in the EFL context. *Frontiers in Psychology*, 13, 1049401. <https://doi.org/10.3389/fpsyg.2022.1049401>
- Kartal, G. (2024). The influence of ChatGPT on thinking skills and creativity of EFL student teachers: A narrative inquiry. *Journal of Education for Teaching*, 1–16. <https://doi.org/10.1080/02607476.2024.2326502>
- Kaya, F., Aydin, F., Schepman, A., Rodway, P., Yetişensoy, O., & Demir Kaya, M. (2024). The Roles of Personality Traits, AI Anxiety, and Demographic Factors in Attitudes toward Artificial Intelligence. *International Journal of Human–Computer Interaction*, 40(2), 497–514. <https://doi.org/10.1080/10447318.2022.2151730>
- Liu, M. (2023). Exploring the Application of Artificial Intelligence in Foreign Language Teaching: Challenges and Future Development. *SHS Web of Conferences*, 168, 03025. <https://doi.org/10.1051/shsconf/202316803025>
- Luckin, R., Cukurova, M., Kent, C., & Du Boulay, B. (2022). Empowering educators to be AI-ready. *Computers and Education: Artificial Intelligence*, 3, 100076. <https://doi.org/10.1016/j.caeai.2022.100076>
- Mayring, P. (2014). Qualitative content analysis: Theoretical foundation, basic procedures and software solution. *Klagenfurt*.
- Ministry of National Education [MEB]. (2024). *Eğitimde yapay zeka uygulamaları formu*. Retrieved from https://yegitek.meb.gov.tr/meb_iys_dosyalar/2024_09/11104346_meb_egitimde_uyz_formu_raporu_web_28082024_tr.pdf
- Mirbabaie, M., Brünker, F., Möllmann Frick, N. R. J., & Stieglitz, S. (2022). The rise of artificial intelligence – understanding the AI identity threat at the workplace. *Electronic Markets*, 32(1), 73–99. <https://doi.org/10.1007/s12525-021-00496-x>

- Na, S., Heo, S., Han, S., Shin, Y., & Roh, Y. (2022). Acceptance Model of Artificial Intelligence (AI)-Based Technologies in Construction Firms: Applying the Technology Acceptance Model (TAM) in Combination with the Technology–Organisation–Environment (TOE) Framework. *Buildings*, 12(2), 90. <https://doi.org/10.3390/buildings12020090>
- Nghi, T. T., Phuc, T. H., & Thang, N. T. (2019). *Applying Ai Chatbot For Teaching A Foreign Language: An Empirical Research*. 8(12).
- Núñez, E., Steyerberg, E. W., & Núñez, J. (2011). Regression Modeling Strategies. *Revista Española de Cardiología (English Edition)*, 64(6), 501–507. <https://doi.org/10.1016/j.rec.2011.01.017>
- Ramazanoglu, M., & Akin, T. (2024). AI readiness scale for teachers: Development and validation. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-024-13087-y>
- Schwab, K. (2017). *The Fourth Industrial Revolution*. Crown Currency.
- Selvi, A. F. (2019). *Qualitative content analysis*.
- Sumakul, Hamied, & Sukyadi. (2022). *AI friend or foe.pdf*.
<https://so04.tcithaijo.org/index.php/LEARN/index> Artificial Intelligence in EFL
- Uygun, D. (2024). Teachers' perspectives on artificial intelligence in education. *Advances in Mobile Learning Educational Research*, 4(1), 931–939. <https://doi.org/10.25082/AMLER.2024.01.005>
- Wang, X., Li, L., Tan, S. C., Yang, L., & Lei, J. (2023). Preparing for AI-enhanced education: Conceptualizing and empirically examining teachers' AI readiness. *Computers in Human Behavior*, 146, 107798. <https://doi.org/10.1016/j.chb.2023.107798>
- Yue, M., Jong, M. S.-Y., & Ng, D. T. K. (2024). Understanding K–12 teachers' technological pedagogical content knowledge readiness and attitudes toward artificial intelligence education. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-024-12621-2>

Appendices

AI-READINESS QUESTIONNAIRE

Confidence in learning

1. I can facilitate AI learning in class
2. I understand the basics of AI

Interest in AI

3. I am interested in AI.
4. I would like to learn more about AI.
5. I am interested in how AI works.
6. I am interested in understanding how machines perform cognitive functions
7. I would like to study AI in the future.

AI readiness

8. I understand how AI technologies are trained and function in education.
9. I can distinguish the functions and features of different AI tools and applications.
10. I can effectively integrate AI technologies into my classroom routines.
11. I can effectively discuss, share, and collaborate with other teachers on the use of AI technologies to jointly design high-quality teaching solutions.
12. I understand the strengths and limitations of AI technologies.

AI Ethics

13. I understand the digital ethics that teachers should possess in the era of AI.
14. I understand the ethical obligations and responsibilities teachers need to assume in the process of using AI technologies.
15. I know how to keep personal information safe when using AI technologies.
16. I use the data of teachers and students generated by AI systems following legal and ethical norms.

Perceived threats from AI

17. I feel that AI technologies could weaken the importance of teachers in education.
18. I feel that the use of AI technologies has reduced the frequency of face-to-face communication with colleagues and students.
19. I think that frequent use of AI technologies to assist teaching and learning may lead to inertia, which may reduce the thinking and decision-making abilities of teachers and students.
20. In my opinion, overuse of AI technologies may reduce the necessity of human teachers in the classroom, rendering it difficult for teachers to pass on correct values to students.

Attitude toward AI

21. I look forward to using AI in my daily life.
22. I would like to use AI in my teaching.
23. It is important that my students learn AI.
24. It is important that my future students acquire the necessary abilities to take advantage of AI

Subjective norms

25. My school organizes enrichment lessons for us to learn more about AI technologies My peers encourage me to participate in innovative AI learning activities,
26. My mentors/bosses have emphasized the necessity to work creatively using AI technology
27. My colleagues feel that learning how to work with AI technology in education is necessary

Relevance of AI

28. Learning AI in class will be useful.
29. AI content will be related to things I have seen, done or thought about in my own life
30. It is clear to me how the content of AI is related to my career
31. The content of AI will be useful for me I am aware that AI technology will change the world.

SEMI-STRUCTURED INTERVIEW QUESTIONS ON TURKISH EFL TEACHERS' AI READINESS

Confidence in AI Learning and Facilitation

1. Can you describe your confidence in facilitating AI learning in your classroom? Are there specific challenges or successes you've encountered?

Interest in AI

1. What aspects of AI technology interest you the most, both
2. How do you see yourself learning more about AI in the future? What would you need to support this learning?

AI Readiness

1. What strategies do you currently use, or plan to use, to integrate AI technologies into your classroom routines?
2. Can you share an experience where collaboration with peers or other stakeholders helped you enhance your understanding or use of AI tools?

AI Ethics

1. How do you approach ethical considerations when using AI in education, particularly regarding data privacy and security?
2. In your opinion, what are the primary ethical challenges teachers face when integrating AI into their teaching practices?

Perceived Threats from AI

1. Do you believe AI technologies pose any risks to the role of teachers or traditional education practices? How do you navigate these concerns in your professional context?

Attitude Toward AI

1. What motivates you to use or avoid using AI in your teaching? How do you think it impacts your students' learning experiences?

Relevance of AI

1. How do you perceive the relevance of AI technologies to your teaching career and the broader educational landscape?