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Pre-Service EFL Teachers' Perceptions of ChatGPT: Opportunities and Challenges

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Abstract
This study aims to investigate the perceptions of pre-service English as a Foreign Language (EFL) teachers regarding the use of ChatGPT in their academic and professional development. A total of 100 pre-service EFL teachers participated in the research. Data were collected through focus group interviews and the ChatGPT Usage Scale developed by Taktak and Bafralı (2025), which includes two sub-dimensions: Opportunities and Challenges. The scale demonstrated acceptable internal consistency (Cronbach's α=.71). Descriptive statistics were used to summarize demographic details and participants' responses, while non-parametric tests were applied due to the violation of normality assumptions. Results indicate that undergraduate ELT students perceive ChatGPT as a valuable supplement to their studies, facilitating task efficiency and providing new avenues for learning. However, participants also expressed concerns about its accuracy, ethical issues, and the potential for over reliance on the tool. This study contributes to the growing body of research on artificial intelligence in language teacher education by providing empirical evidence on pre-service EFL teachers' perceptions of ChatGPT, highlighting both its pedagogical potential and the associated challenges. The study is limited by its sample, which consisted solely of pre-service EFL teachers from a single context, potentially limiting the generalizability of the findings. Future research could explore perceptions across different educational settings and cultural contexts. Findings suggest the need for structured training on the ethical and critical use of AI tools in language teacher education programs to maximize benefits while mitigating potential risks.

Keywords: Artificial Intelligence, ChatGpt, English as a Foreign Language, Pre-service Teachers, 21st Century Abilities

Introduction

When artificial intelligence, or AI for short, was first proposed nearly 60 years ago, it was merely a science fiction idea for a very long time. AI is a type of intelligence system that allows machines, especially computer systems, to mimic human intelligence processes. It has become a common technology in a number of industries, including healthcare, finance, education, and transportation. AI encompasses a wide range of technologies, including apps that recommend TV series and chatbots that provide real-time customer support. Every second, a new artificial intelligence tool is developed to assist people in making their lives easier (Sánchez-Prieto et al., 2020). AI is increasingly being used to create more productive and user-friendly tools that mimic human cognitive abilities (Allam et al., 2023). AI is predicted to revolutionize education, and its quick development has important ramifications for learning and education as well. When compared to human judgment in educational settings, AI can make intelligent decisions (Akerkar, 2014). AI integration into the educational system is crucial to catching this trend (Traoré, 2024). Numerous artificial intelligence (AI) tools have been created recently to improve educational outcomes, cater to the needs of diverse learners, and improve teaching and learning experiences.

The AI revolution has also had an impact on the field of foreign language education, and numerous AI tools have been created to give students the opportunity to practice a foreign language in a fantastic setting while learning English. Learners have the chance to enhance their language skills in a customized setting based on their current level of English proficiency, professional requirements, or interests. With a variety of platforms and tools, AI encourages and assists learners in improving their English language proficiency (Song & Song, 2023). Fazal et al. (2023) claim that ChatGPT is among the most widely used AI tools among foreign language educators. Therefore, the purpose of this study is to explore the perceptions of pre-service English as a Foreign Language (EFL) teachers regarding the use of ChatGPT, a widely adopted artificial intelligence-based conversational tool, in foreign language education. Given the rapid integration of AI technologies into educational contexts and their growing presence in language learning environments, this study aims to investigate how future language teachers evaluate the opportunities and challenges associated with ChatGPT use. Specifically, the study seeks to understand how pre-service EFL teachers perceive the pedagogical potential, practical utility, and limitations of ChatGPT in supporting English language teaching and learning. Through the use of focused-group interviews and a standardized ChatGPT Usage Scale (Taktak & Bafralı, 2025), this research aims to contribute to the growing body of literature on AI in education and inform teacher education programs about the readiness and attitudes of future educators toward AI-enhanced instruction.

Literature Review

Artificial intelligence is an algorithm system that mimics human cognitive functions like accessibility, automation, and problem-solving through various tools and platforms (Wu et al., 2020). Alan Turing, a trailblazing mathematician and computer scientist, developed the idea of artificial intelligence in 1936. Despite not using the term "artificial intelligence" in his research, he laid the foundation for the modern concept. John McCarthy first used the term "AI" at the 1956 Dartmouth Conference. At this conference, scientists from different fields gathered to explore the potential for building machines with the ability to think and perform tasks that are frequently linked to human intelligence. As a result, the conference served as the official start of AI research, and it has continued to be a field of study ever since (Knapp, 2006). Despite being around for more than 60 years, artificial intelligence (AI) has recently seen tremendous growth and technological advancements that are increasingly influencing many facets of our daily lives (Tobin et al., 2019).

AI has the power to transform industries and boost productivity and efficiency (Mannuru et al., 2023). Businesses in the sector can increase efficiency by using AI to automate tasks and save time and money. By managing repetitive tasks, it increases employee productivity and frees them up to concentrate on higher-level and more creative tasks. Additionally, by drawing insightful conclusions from vast and complex data sets, AI assists businesses in making wise decisions, especially in domains like customer data analysis (Tacheva & Ramasubramanian, 2023).

The application of artificial intelligence (AI) in education has been more popular in the past 25 years (de Brito et al., 2023), but it was first used in the 1970s as computer-related systems. Computers began to be utilized more in classrooms, primarily for drill and skill (Cairns & Malloch, 2017). Computer-aided instruction and learning (CAI/L) is a new educational phase brought about by advancements in computers and related technologies. It eventually took the shape of web-based and online learning platforms like ChatGPT, Education Copilot, and Magic School. According to Chen et al. (2020), all of these developing technologies led to the development of artificial intelligence (AI) and AI tools for educational applications.

In 2018, the Generative Pre-trained Transformer (GPT-1) language model was released by OpenAI, an AI research and deployment company (Wang & Cho, 2019). In 2022, the business subsequently released the ChatGPT model as a free source project (OpenAI, 2022). According to Atlas (2023), ChatGPT is a useful tool for teachers and students because it can identify grammatical errors, condense information, and save time. Because students can copy and paste the information from ChatGPT as if it were their own, which could lead to plagiarism,

some educators are worried about integrating ChatGPT into classrooms. All things considered, AI Ed has presented new possibilities, difficulties, and chances for educational progress by establishing more individualized learning settings, altering the role of teachers, and producing increasingly intricate and advantageous educational systems (Taktak & Bafralı, 2025; Zhai et al., 2021).

According to Zawacki et al. (2019), AI Ed applications are growing and have drawn attention over the past three decades, but it is still unknown how much of its full potential educators are using. Similar to digital literacy, AI literacy is a barrier that prevents AI from being used in educational settings. Edmett et al. (2023) assert that since educators lack the necessary pedagogical knowledge to incorporate AI into their instruction, there is an urgent need to train them to close this gap (Lindler et al., 2019; Sanusi et al., 2021). Teachers' lack of interest in implementing AI in the classroom, technical limitations, and a lack of understanding of AI algorithms are some of the obstacles to its use by educators (Celik et al. 2022).

As stated by Ayanwale et al. (2022), there aren't many studies on teachers' intentions and preparedness to use AI in the classroom. In order to assess teachers' intuition and preparedness, they created a quantitative study involving 368 Nigerian in-service teachers. They concluded that while intention to teach AI is correlated with readiness to teach AI, willingness to teach AI is correlated with AI relevance. Additionally, it is discovered that the use of AI has nothing to do with teachers' anxiety levels or social welfare. According to Chiu and Chai (2020), it is essential to incorporate AI topics into the curriculum. They conducted a study to find out how teachers felt about creating an AI curriculum for K-12 schools. Teachers lack the technical and subject-matter expertise to implement AI in their classrooms, according to their qualitative study of 24 teachers, 12 of whom had prior teaching experience and the remaining 12 of whom did not. According to the study by Ayanwale et al. (2022), AI makes teachers anxious, and new technologies make their potential users feel strange. Human exclusion, technical ignorance, and conceptual misunderstandings are the main causes of this anxiety.

Galindo-Domínguez et al. (2024) carried out another study to see if there was a connection between teachers' attitudes toward AI and their level of digital competency. Regardless of educational stage, sex, age, years of experience, or area of expertise, the results demonstrated that teachers who possess greater digital competency have a more positive attitude toward AI. The study's other conclusion showed that although educators believe they are prepared to use AI in classrooms, they lack practical experience.

On the other hand, the use of AI in EFL has a bright future, according to an increasing number of research studies. Numerous benefits result from it, including increased English language proficiency, translation, assessment, attitude, and recognition. Nevertheless, there are relatively few studies examining the efficacy of AI tools in the context of EFL as well as the knowledge and proficiency of EFL teachers. According to Alkanann (2022), it is imperative that educators receive training on how to apply and incorporate AI into their classrooms.

According to the results of the study by Firdaus and Nawaz (2024), the majority of educators believe that artificial intelligence is suitable and beneficial for EFL. However, using this relatively new technology comes with a number of difficulties. The study demonstrates that teachers have favorable opinions about the use of AI; however, the benefits of using AI to teach English can only be realized by eliminating the difficulties that both teachers and students encounter when utilizing it. A survey was used by Zulkarnain and Yunus (2023) to find out how ESL primary teachers felt about using AI in the classroom. The findings demonstrated that the teachers' intentions to use AI were influenced by their attitudes.

Therefore, it is important to take into account the teachers' perspectives. Additionally, the use of AI in EFL provides innovative and fresh approaches to enhance instruction. Advanced language processing technologies and tutoring programs are examples of AI tools that are already beginning to transform teaching strategies. To satisfy the needs of English language learners, these tools enable learning experiences, real-time feedback, and tailored content delivery. Understanding AI's benefits and drawbacks

is crucial for its successful integration into an EFL context, as is putting it into practice strategically for optimal results. AI can assist teachers in creating inclusive and productive language learning environments that improve the educational process as a whole (Al Kanaan, 2022).

This study, therefore, aims to investigate the future EFL teachers' perceptions regarding the challenges and opportunities of ChatGpt Use by addressing the following research questions;

- RQ1. What are the perceptions of pre-service EFL teachers toward ChatGPT use?
  - 1a. What are the perceptions of pre-service EFL teachers toward challenges of ChatGPT use?
  - 1b. What are the perceptions of pre-service EFL teachers toward opportunities of ChatGPT use?
- RQ2. Is there a relationship between the gender and ChatGpt use of the participants?

Methodology

Research Design

Convergent parallel design (Creswell, 2013) was used for this study, which applied both quantitative and qualitative strands simultaneously by maintaining their independence during analysis and combining the results during interpretation. Triangulation of data, a more thorough explanation of the analysis, boosting the study's credibility, and making up for the shortcomings of both research types were thus the goals.

Ethical Considerations

This study was conducted in accordance with established ethical research guidelines to ensure the rights, dignity, and well-being of participants were protected throughout the research process (Creswell, 2013). Prior to data collection, the study design underwent institutional ethical review and received formal approval from the relevant ethics committee. All participants were informed about the purpose of the research, the voluntary nature of their participation, and their right to withdraw at any stage without penalty.

Informed consent was obtained electronically from each participant before they completed the questionnaire or took part in the open-ended interviews. Participants were assured that their responses would remain anonymous and confidential, with no identifying information being collected or reported. Data were stored securely and accessed only by the research team, in line with data protection regulations.

Furthermore, care was taken to avoid any form of coercion, particularly as participants were drawn from university settings in which the researchers had professional connections. The research instruments were designed to pose no physical, psychological, or social risk to participants. To maintain transparency, findings have been reported honestly and without fabrication, falsification, or inappropriate data manipulation. By adhering to these ethical protocols, the study ensured the integrity of the research process and the credibility of its outcomes.

Participants

The study included a total of 100 pre-service EFL teachers enrolled in the final year of their undergraduate programs across four different state universities in Turkey. The demographic and usage profiles of the respondents are presented in table 1. Of the participants, 68% (n = 68) identified as female, while 32% (n = 32) identified as male. This distribution indicates that the sample was predominantly male, with over two-thirds of the respondents identifying as such.

Participants were also asked to indicate how frequently they use artificial intelligence (AI) tools. The responses were categorized as Never, Sometimes, and Always. The majority of participants (68%, n = 68) reported that they use AI tools sometimes, whereas 29% (n = 29) stated that they always use such tools. Only a small proportion of respondents (3%, n = 3) reported that they never use AI. These results suggest a generally high level of exposure to AI among the participants, with nearly all respondents reporting at least occasional interaction with AI technologies.

Table 1 Demographics of the Respondents

Gender					
		F	%	Valid %	Cumulative %
Valid	Female	68	68,0	68,0	68,0
	Male	32	32,0	32,0	100,0
	Total	100	100,0	100,0	
AI Use					
		F	%	Valid %	Cumulative %
Valid	Never	3	3,0	3,0	3,0
	Sometimes	68	68,0	68,0	71,0
	Always	29	29,0	29,0	100,0
	Total	100	100,0	100,0	

Instruments and Data Collection

The ChatGPT Usage Scale (Taktak & Bafralı, 2025) was used to gather quantitative data on the perceived opportunities and challenges of using ChatGPT by future EFL teachers. The scale's twelve items are intended to investigate respondents' opinions about ChatGPT's application in classrooms. Opportunities (7 items) measure the potential advantages of using ChatGPT, such as "ChatGPT usage offers individual learning opportunity," and Challenges (5 items) measure potential disadvantages, such as "ChatGPT can reduce student-teacher interaction." These two sub-dimensions make up the scale.

Participants were able to indicate how much they agreed or disagreed with each statement by rating each item on a 5-point Likert-type scale that went from 1 (strongly disagree) to 5 (strongly agree). Cronbach's alpha coefficient was used to assess the scale's internal consistency; the result was 0.71, which indicates a level of reliability suitable for research. From the viewpoint of aspiring teachers, this tool was judged suitable for capturing the enabling and limiting elements associated with ChatGPT integration.

Randomly selected ten participants were also sent some open ended questions and requested to respond to enhance comprehension of the scale's responses, capture subtleties that are difficult to measure with quantitative items, and give participants a chance to consider their own opinions, experiences, and potential applications.

The process of gathering data was aided by technology. This was accomplished through online forms. The adopted questionnaire form was distributed to the respondents after it had been digitized. The respondents were given two weeks to fill in the questionnaire and respond to open-ended questions. The notice was sent to the respondents approximately two days before the deadline. Data collection was preceded by an ethical review of the paper.

Data Analysis

The quantitative data obtained through the ChatGPT Usage Scale were analyzed using the Statistical Package for the Social Sciences (SPSS) version 26.0. Descriptive statistics, including means, standard deviations, frequencies, and percentages, were used to summarize participants' demographic characteristics and their responses to the scale items. To assess the reliability of the scale, Cronbach's alpha coefficient was calculated and found to be 0.71, indicating acceptable internal consistency. Prior to conducting inferential analyses, the assumption of normality was tested using both the Kolmogorov-Smirnov and Shapiro-Wilk tests. The results (see table 2) indicated that the data significantly deviated from a normal distribution:

Table 2 Test of Normality

Tests of Normality	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Mean Score	.083	100	.042	.931	100	.000

Note: Lilliefors significance correction applied for Kolmogorov-Smirnov test.

The qualitative data of the written responses to open-ended questions were thematically coded (Braun & Clarke, 2006) for recurring themes on learners' perceptions of the opportunities and challenges of ChatGpt Use.

Braunand Clarke's (2006) six-phase framework follow the following steps respectively; familiarization, coding, generating themes, reviewing, defining, and reporting. The responses were inductively coded to allow patterns to emerge from participants' responses.

The quantitative and qualitative data were analyzed separately and then integrated to provide a more comprehensive understanding of the research findings. This mixed-methods approach allowed for triangulation of the data, enhancing the validity and reliability of the results.

Findings

This study examined the perceptions of future EFL teachers regarding the opportunities and challenges of using ChatGPT in foreign language education, with a specific focus on potential gender-based differences.

In order to answer the first research question, Descriptive statistics were calculated to determine the central tendency and variability of the participants' responses on the measured scale. The analysis revealed that scores ranged from 2.75 to 4.67, with a mean score of 3.72 (SD = 0.41, N = 100).

This suggests that, on average, participants tended to score above the midpoint of the scale, indicating moderately high levels on the measured construct.

Table 3 General ChatGpt Use Scale Mean Scores

	N	Mini	Max	Mean	S. D.
Mean	100	2,75	4,67	3,7192	,41467
Valid N (listwise)	100				

Descriptive statistics were also computed for the two sub-dimensions of the ChatGPT Usage Scale: Opportunities and Challenges (see Table 4). For the Opportunities subscale, participant scores ranged from 2.29 to 5.00, with a mean of 4.09 (SD = 0.63, N = 100). This indicates that, on average, participants perceived a relatively high level of opportunity in using ChatGPT in educational contexts. In contrast, scores on the Challenges subscale ranged from 1.60 to 4.60, with a mean of 3.19 (SD = 0.65, N = 100). This suggests that while participants did recognize some challenges associated with ChatGPT use, the perceived difficulty was moderate. Overall, the findings show that participants were more inclined to identify the opportunities rather than the challenges related to ChatGPT use in their educational experiences.

Table 4 Descriptive Statistics of ChatGPT Usage Scale Sub-Dimensions

	N	Mini	Max	Mean	S. D.
Opportunities	100	2,29	5,00	4,0943	,63474
Challenges	100	1,60	4,60	3,1940	,64976
Valid N (listwise)	100				

Table 5 Mann-Whitney U Test Results for Gender Differences

Ranks				
	Gender	N	Mean Rank	Sum of Ranks
Mean	Female	68	52,11	3543,50
	Male	32	47,08	1506,50
	Total	100		
Opportunities	Female	68	48,85	3322,00
	Male	32	54,00	1728,00
	Total	100		
Challenges	Female	68	53,53	3640,00
	Male	32	44,06	1410,00
	Total	100		

Test Statistics[a]			
	Mean	Opportunities	Challenges
Mann-Whitney U	978,500	976,000	882,000
Wilcoxon W	1506,500	3322,000	1410,000
Z	-,811	-,831	-1,529
Asymp. Sig. (2-tailed)	,417	,406	,126
a. Grouping Variable: Gender			

Gender-Based Comparisons of Perceptions

A series of Mann-Whitney U tests were conducted to examine whether participants' perceptions of ChatGPT usage differed significantly by gender across the overall scale and its two sub-dimensions: Opportunities and Challenges (see Table 5). For the overall mean scores, female participants (Mean Rank = 52.11, n = 68) had slightly higher ranks than male participants (Mean Rank = 47.08, n = 32). However, this difference was not statistically significant, U = 978.50, Z = -0.811, p = .417.

In terms of Opportunities, male participants (Mean Rank = 54.00) scored higher than female participants (Mean Rank = 48.85), but the difference did not reach statistical significance, U = 976.00, Z = -0.831, p = .406. Additionally, for Challenges, female participants (Mean Rank = 53.53) ranked

higher than males (Mean Rank = 44.06), indicating that they perceived more challenges associated with ChatGPT use. However, this difference was also not statistically significant, U = 882.00, Z = -1.529, p = .126.

These results suggest that gender does not have a statistically significant influence on participants' overall perceptions of ChatGPT use, nor on their perceptions of its opportunities or challenges.

Thematic Analysis Report on Undergraduate ELT Students' Perceptions of ChatGPT Use in Education

The analysis focused on seven predefined themes: frequency of using AI in education, purposes of using AI in education, how ChatGPT improves education, opportunities of using ChatGPT in education, challenges of using ChatGPT in education, ethical use of ChatGPT, and academics' attitudes toward students' ChatGPT use. The findings are supported with illustrative quotations from the participants.

Frequency of Using AI in Education

The analysis revealed that most students use AI tools such as ChatGPT occasionally rather than on a daily basis. Students described their usage patterns as being task-oriented, particularly when assignments or lesson planning tasks arise. For example, one participant stated, "I usually use ChatGPT once or twice a week when I have assignments or need quick explanations" (Participant 3). Another participant commented, "I don't use it regularly, only when I need help with vocabulary or ideas for my lesson plans" (Participant 8).

These accounts indicate that AI is primarily viewed as a support tool rather than an integral part of students' daily academic routines. The sporadic use highlights that AI tools are currently supplementary in nature for undergraduate ELT students.

Purposes of Using AI in Education

Students identified multiple academic purposes for using AI, including generating ideas, checking grammar, planning lessons, and summarizing texts. One student noted, "I use ChatGPT to get ideas for classroom activities or when I'm stuck with lesson plans" (Participant 1). Similarly, another shared, "It helps me check my grammar and vocabulary before submitting assignments" (Participant 5).

The findings suggest that AI tools are valued for their practicality in language learning and teaching contexts, particularly as sources of inspiration and assistance for academic tasks.

How ChatGPT Improves Education

Participants emphasized that ChatGPT provides time efficiency, instant feedback, and multiple explanations for complex topics. As one participant expressed, "It helps me understand concepts faster because I get instant explanations" (Participant 6). Another added, "It saves time. Instead of searching many websites, I get everything in one place" (Participant 10).

These findings indicate that students perceive ChatGPT as a facilitator of learning efficiency, reducing the time and effort spent on seeking information from various sources.

Opportunities of Using ChatGPT in Education

Students highlighted several opportunities afforded by ChatGPT, particularly in terms of personalized learning, language practice, and access to authentic examples. For instance, one student mentioned, "I can practice speaking by asking questions to ChatGPT, which feels like having a tutor" (Participant 2). Another stated, "It gives me examples from real-life contexts, which I can use in my teaching practice" (Participant 7).

These perspectives suggest that ChatGPT contributes to autonomous and active learning, aligning with student-centered approaches in language education.

Challenges of Using ChatGPT in Education

Despite the perceived benefits, students also acknowledged several challenges, including accuracy issues, risk of over-reliance, and lack of cultural appropriateness. As one student noted, "Sometimes the information is wrong, so I always double-check it" (Participant 4). Another remarked, "It makes me lazy because I depend on it too much for ideas" (Participant 9).

This reflects an awareness among students of the limitations and potential drawbacks of

AI, particularly concerning critical thinking and independent learning.

Ethical Use of ChatGPT

Concerns regarding academic integrity and plagiarism were common among participants. Several students emphasized the importance of transparency and responsible use. For example, one participant stated, "If I copy answers directly, it feels like cheating" (Participant 1). Another suggested, "There should be clear rules on how much AI use is acceptable in assignments" (Participant 5).

These comments highlight a need for institutional guidelines to ensure students use AI ethically and responsibly.

Academics' Attitudes Toward Students' ChatGPT Use

Students described academics' attitudes as mixed, with some instructors encouraging responsible use and others discouraging it. One student stated, "Some of my teachers suggest using AI as a support tool but not as the main source" (Participant 6). In contrast, another participant explained, "One of my professors warned us not to rely on ChatGPT too much, saying it kills creativity" (Participant 8).

Table 6 Summary Table of Thematic Analysis

Theme	Frequency (out of 10)	Key Insight
Frequency of Using AI	7	Occasional use for academic purposes
Purposes of Using AI	9	Used for lesson planning, grammar check, and generating ideas
How ChatGPT Improves Education	8	Provides efficiency, instant feedback, and better understanding
Opportunities of Using ChatGPT	8	Facilitates personalized learning and authentic language use
Challenges of Using ChatGPT	7	Accuracy issues, over-reliance, lack of cultural context
Ethical Use of ChatGPT	6	Concerns about plagiarism and responsible use
Academics' Attitudes Toward ChatGPT Use	7	Mixed—some supportive, others restrictive

These findings demonstrate that students perceive uncertainty and inconsistency in how AI use is approached by educators, indicating the need for more consistent institutional policies.

The findings suggest that undergraduate ELT students perceive ChatGPT as a valuable but supplementary tool that can improve academic efficiency and enhance learning opportunities. However, concerns remain regarding accuracy, ethical considerations, and over-reliance on AI. Students also experience inconsistent attitudes from academics, indicating a need for clear guidelines on ethical and pedagogically sound AI use in education.

Discussion and Conclusion

The findings of this study indicate that pre-service EFL teachers generally perceive ChatGPT as a valuable supplementary tool that supports academic efficiency, facilitates lesson planning, and enhances learning opportunities. These results align with prior research suggesting that AI-based tools can streamline educational tasks and provide personalized learning experiences (Song & Song, 2023; Atlas, 2023). The relatively high mean scores for the "Opportunities" sub-dimension of the ChatGPT Usage Scale echo the conclusions of Firdaus and Nawaz (2024), who found that teachers often acknowledge the pedagogical benefits of AI despite associated challenges.

However, consistent with the concerns raised in earlier studies (Celik et al., 2022), participants in this study expressed reservations regarding the accuracy of ChatGPT's outputs, potential ethical issues, and the risk of over-reliance. These perceptions resonate with Warner's (2023) argument that AI tools must be integrated into educational contexts in a sustainable and critically informed manner, ensuring that learners develop evaluative and independent thinking skills rather than passively accepting AI-generated content. Moreover, as language learning is inherently social and communicative, there is a risk that AI-mediated interactions may lack the authenticity and peer engagement necessary for deeper linguistic competence, even if such tools can partially compensate through simulations and role-play activities.

Gender-based comparisons revealed no statistically significant differences in perceptions of ChatGPT's opportunities and challenges. This is in line with Galindo-Domínguez et al. (2024), who found that attitudes toward AI are more strongly linked to digital competency than to demographic variables such as gender. The lack of significant gender differences in this study may suggest that exposure to AI in academic settings fosters relatively uniform perceptions among student teachers.

The mixed attitudes reported from faculty, ranging from cautious endorsement to outright discouragement, highlight the institutional uncertainty surrounding AI integration. As Edmett et al. (2023) and Zawacki-Richter et al. (2019) note, educator readiness and pedagogical frameworks are critical determinants of successful AI adoption. Without clear policies and ethical guidelines, the integration of ChatGPT into teacher education risks remaining fragmented and inconsistent.

In conclusion, this study reinforces the view that AI, and ChatGPT in particular, can enhance aspects of language teacher education by providing immediate feedback, personalized support, and creative learning tasks. Nevertheless, these benefits must be balanced against challenges relating to accuracy, ethics, and over-reliance. As emphasized in the literature (Ayanwale et al., 2022; Al Kanaan, 2022), preparing future educators to engage critically and creatively with AI tools is essential. AI should not be positioned as a replacement for language teachers but as a pedagogical partner that, when used strategically, can enrich the teaching and learning process.

Implications

Language instructors can gain greatly from professional development programs initiatives customized around AI applications. Because prompt engineering emerged as weaker skill area, workshops in this domain is especially valuable. For example, a prompt-crafting session would teach educators to write precise, context-rich queries that generate useful outputs for conversation practice or reading comprehension tasks. Other training could demonstrate how to embed ChatGPT into assessment creation—designing authentic, real-world communication activities and leveraging AI to personalize evaluation. Teachers could also explore methods for using ChatGPT to deliver on-the-spot feedback on student drafts, speeding up response times while maintaining depth. Programs should honor teachers' prior expertise by incorporating peer-led brainstorming and sharing circles, following the collaborative spirit of the TPACK model of Koehler and Mishra (2009) to co-construct new strategies for weaving AI into everyday lessons.

Students stand to benefit when ChatGPT is woven into the learning journey rather than merely checking a final product. AI-designed tasks allow learners to experience tailored, interactive exercises. ChatGPT can supply instant, formative comments on writing drafts, helping students iteratively refine grammar, style, and content. Simulated real-life dialogues—such as role-plays in service encounters or interviews—expand learners' practical communication skills. At the same time, learners should be guided to appraise AI feedback critically, asking whether suggestions are accurate or culturally fitting. Encouraging creative uses - like transforming a news article into a poem - pushes students to engage in higher-order thinking and take ownership of their language development.

In terms of AI developers, to make AI platforms truly useful in language classrooms, developers must factor in educators' real-world needs. Partnering with teachers to gather classroom insights can reveal which features matter most - whether it's more nuanced, context-sensitive feedback or simplified interfaces for lesson planning. Building in educational templates aligned to common proficiency scales, providing visual dashboards that track class progress, and offering adjustable settings for tone and creativity can all boost adoption. Prioritizing an intuitive, non-technical user experience - complete with guided tutorials and exemplar lesson modules - ensures that even those new to AI can harness its power effectively. A collaborative development cycle with ongoing educator input will keep tools aligned with evolving teaching and learning goals.

The implications and suggestions outlined are not exclusive to language education; they can be applied or tailored to other teaching domains to enhance teachers' practices and professional development across various subjects.

Limitations

This study was carried out with 100 pre-service teachers from four different universities. Another study with wider group of participants from more diverse universities might have different findings. Another limitation is that normality assumptions were not met and nonparametric tests were used in data analysis.

To conclude, this study examined the perceptions of future EFL teachers regarding the opportunities and challenges of using ChatGPT in foreign language education, with a specific focus on potential gender-based differences.

References

Akerkar, R. (2014). *Introduction to artificial intelligence*. PHI Learning Pvt. Ltd.

Allam, H., Dempere, J., Akre, V., Parakash, D., Mazher, N., & Ahamed, J. (2023, May). Artificial intelligence in education: An argument of Chat-GPT use in education. in *2023 9th International Conference on Information Technology Trends (ITT)*, IEEE, pp. 151-156.

AlKanaan, H. M. N. (2022). Awareness regarding the implication of artificial intelligence in science education among pre-service science teachers. *International Journal of Instruction, 15*(3), 895-912.

Atlas, S. (2023). *ChatGPT for higher education and professional development: A guide to conversational AI*.

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*.

Cairns, L., & Malloch, M. (2017). Computers in education: The impact on schools and classrooms. In *Life in schools and classrooms: Past, present and future,* Springer Singapore, pp. 603-617.

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.

Chai, C. S., Wang, X., & Xu, C. (2020). An extended theory of planned behavior for the modelling of Chinese secondary school students' intention to learn artificial intelligence. *Mathematics, 8*(11).

Chen, B., Marvin, S., & While, A. (2020). Containing COVID-19 in China: AI and the robotic restructuring of future cities. *Dialogues in Human Geography, 10*(2), 238-241.

Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches*. Sage.

de Brito Duarte, R., Correia, F., Arriaga, P., & Paiva, A. (2023). AI trust: Can explainable AI enhance warranted trust? *Human Behavior and Emerging Technologies*, 1-12.

Edmett, A., Ichaporia, N., Crompton, H., & Crichton, R. (2023). Artificial intelligence and English language teaching: Preparing for the future. *British Council*.

Fazal, A., Ahmed, A., & Nisar, S. (2023). Artificial intelligence and financial inclusion: A systematic literature review. *Journal of Asian Development Studies, 12*(3), 158-168.

Firdaus, A., & Nawaz, S. (2024). Viewpoints of teachers about the usage of artificial intelligence in ELT: Advantages and obstacles. *University of Chitral Journal of Linguistics and Literature, 8*(1), 82-93.

Galindo-Domínguez, H., Delgado, N., Losada, D., & Etxabe, J. M. (2024). An analysis of the use of artificial intelligence in education in Spain: The in-service teacher's perspective. *Journal of Digital Learning in Teacher Education, 40*(1), 41-56.

Koehler, M., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education, 9*(1), 60-70.

Lindner, A., Romeike, R., Jasute, E., & Pozdniakov, S. (2019). Teachers' perspectives on artificial intelligence. In *12th International Conference on Informatics in Schools: Situation, Evaluation and Perspectives (ISSEP)*, pp. 7893-7925.

Mannuru, N. R., Shahriar, S., Teel, Z. A., Wang, T., Lund, B. D., Tijani, S., & Vaidya, P. (2023).

Artificial intelligence in developing countries: The impact of generative artificial intelligence (AI) technologies for development. *Information Development*, *41*(3), 1-19.

Nazaretsky, T., Ariely, M., Cukurova, M., & Alexandron, G. (2022). Teachers' trust in AI-powered educational technology and a professional development program to improve it. *British Journal of Educational Technology, 53*(4), 914-931.

Sánchez Prieto, J., Trujillo Torres, J. M., Gómez García, M., & Gómez García, G. (2020). Gender and digital teaching competence in dual vocational education and training. *Education Sciences, 10*(3), 84.

Sanusi, I. T., Olaleye, S. A., Agbo, F. J., & Chiu, T. K. (2022). The role of learners' competencies in artificial intelligence education. *Computers and Education: Artificial Intelligence, 3*.

Song, C., & Song, Y. (2023). Enhancing academic writing skills and motivation: Assessing the efficacy of ChatGPT in AI-assisted language learning for EFL students. *Frontiers in Psychology, 14*.

Sun, J., Ma, H., Zeng, Y., Han, D., & Jin, Y. (2023). Promoting the AI teaching competency of K-12 computer science teachers: A TPACK-based professional development approach. *Education and Information Technologies, 28*(2), 1509-1533.

Tacheva, J., & Ramasubramanian, S. (2023). AI empire: Unraveling the interlocking systems of oppression in generative AI's global order. *Big Data & Society, 10*(2).

Taktak, M., & Bafrali, G. (2025). ChatGPT usage scale in education: Validity and reliability study. *International Journal of Technology in Education, 8*(1), 193-207.

Tobin, S., Jayabalasingham, B., Huggett, S., & de Kleijn, M. (2019). A brief historical overview of artificial intelligence research. *Information Services and Use, 39*(4), 1-6.

Traoré, D. (2024). Integration of artificial intelligence into education: challenges and prospects. *International Journal of Pedagogy and Educational Innovation, 4*(2), 329-342.

Wang, A., & Cho, K. (2019). BERT has a mouth, and it must speak: BERT as a Markov random field language model. *arXiv Preprint arXiv:1902.04094*.

Wu, Y. J., Hwang, P. C., Hwang, W. S., & Cheng, M. H. (2020). Artificial intelligence enabled routing in software defined networking. *Applied Sciences, 10*(18).

Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education—Where are the educators? *International Journal of Educational Technology in Higher Education, 16*, 1-27.

Zhai, X., Chu, X., Chai, C. S., Jong, M. S. Y., Istenic, A., Spector, M., & Li, Y. (2021). A review of artificial intelligence (AI) in education from 2010 to 2020. *Complexity*, 1-18.

Zulkarnain, N. S., & Yunus, M. M. (2023). Teachers' perceptions and continuance usage intention of artificial intelligence technology in TESL. *International Journal of Multidisciplinary Research and Analysis, 6*(5), 2101-2109.

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