

Beyond Lesson Planning: Exploring Pre-Service English Teachers' Perspectives on AI-Supported Creativity, Efficiency, and Student Engagement in English Language Teaching

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Abstract: The growing use of generative artificial intelligence (AI) is transforming educational practices and creating new opportunities for innovation in English language teaching (ELT). While previous research has primarily focused on AI literacy and technological readiness, less attention has been paid to how pre-service teachers perceive AI's contribution to instructional planning, creativity, efficiency, and student engagement. This study aimed to explore pre-service English teachers' perspectives on the use of AI in ELT. A qualitative case study design was employed. Data were collected through open-ended questionnaires completed by 48 senior pre-service English teachers enrolled in an English Language Teaching program at a foundation university in Istanbul, Türkiye. The data were analyzed using Braun and Clarke's (2006) thematic analysis framework. The findings revealed five major themes. Participants perceived AI as a valuable tool for lesson planning, material development, and instructional support. They reported that AI enhanced creativity by facilitating idea generation and the development of innovative teaching activities. AI was also viewed as improving efficiency through reducing workload, saving time, and increasing productivity. Furthermore, participants believed that AI-supported activities could enhance student motivation, participation, and classroom interaction. Despite these benefits, concerns were expressed regarding overreliance on AI, reduced originality, inaccurate outputs, and the contextual limitations of AI-generated content. Overall, the findings suggest that AI can serve as a useful pedagogical resource that supports teaching effectiveness and learner engagement when used critically and purposefully. The study contributes to the growing literature on AI-supported language teaching and offers implications for teacher education programs preparing future language teachers for technology-enhanced classrooms.

Keywords: artificial intelligence, generative AI, English language teaching, pre-service teachers, lesson planning, student engagement, creativity, teacher education

1. Introduction

English language teachers are expected to design engaging lessons, develop instructional materials, address diverse learner needs, and maintain active classroom participation. These responsibilities require substantial time, creativity, and pedagogical decision-making, particularly for pre-service teachers who are still developing their professional knowledge and instructional skills. In recent years, artificial intelligence (AI) has emerged as a potentially valuable resource for supporting these teaching-related tasks and enhancing instructional practices in language education.

The rapid development of generative AI tools has introduced new possibilities for educational practice. Applications such as ChatGPT can generate lesson ideas, create teaching materials, produce classroom activities, adapt content to different proficiency levels, and provide instructional suggestions within seconds. As a result, AI is increasingly being incorporated into educational settings and has attracted growing attention from language educators seeking practical ways to improve teaching effectiveness and reduce instructional workload (Kasneci et al., 2023; Kohnke et al., 2023).

Within English language teaching (ELT), AI-supported tools appear particularly relevant because language teachers frequently engage in lesson preparation, material adaptation, activity design, and assessment development. Recent studies suggest that generative AI can support teachers in preparing instructional resources, generating examples, designing communicative tasks, and adapting materials to learners' needs (Moorhouse & Kohnke, 2024; Kerr & Kim, 2025). Such affordances may help teachers devote more attention to pedagogical decision-making rather than routine preparation tasks.

Beyond supporting lesson preparation, AI has been associated with creativity and pedagogical innovation. Generative AI can provide alternative teaching ideas, suggest different classroom activities, and offer multiple approaches to presenting content. Previous research has indicated that teachers often use AI as a source of inspiration when developing instructional materials and designing engaging learning experiences (Castillo-Cuesta et al., 2025; Huang et al., 2025). Consequently, AI may contribute not only to instructional support but also to the development of more creative and flexible teaching practices.

Another area receiving increasing attention is student engagement. Maintaining learners' attention, motivation, and participation remains a central challenge in language education. AI-supported activities may help address this challenge by facilitating interactive tasks, personalized learning experiences, and varied classroom activities that encourage active participation. Studies have reported that AI-generated materials and activities can increase learner interest and contribute to more interactive classroom environments (Bond et al., 2020; Castillo-Cuesta et al., 2025).

Despite these potential advantages, the integration of AI into educational contexts has also generated important concerns. Researchers have highlighted issues such as inaccurate information, overreliance on AI-generated content, reduced originality, and the contextual limitations of AI-produced materials (Kasneci et al., 2023; Yadav et al., 2026). In language teaching contexts, these concerns are particularly important because effective instruction often requires contextual sensitivity, pedagogical judgment, and adaptation to specific learner needs.

Although the educational applications of generative AI have attracted considerable scholarly interest, existing studies have largely examined teachers' general attitudes toward AI or focused on specific aspects of AI use. Comparatively fewer studies have explored how pre-service English teachers perceive AI simultaneously as a tool for lesson planning, creativity, efficiency, and student engagement while also considering its perceived limitations. Understanding these perceptions is important because pre-service teachers represent future practitioners who are likely to integrate AI into their professional practice.

Therefore, this study aims to explore pre-service English teachers' perspectives on AI-supported teaching practices in ELT. Specifically, the study investigates how AI contributes to lesson planning and material development, creativity and pedagogical innovation, efficiency and time management, and student engagement. It also examines the concerns and limitations identified by pre-service teachers regarding the integration of AI into English language teaching.

Research Questions

RQ1. How do pre-service English teachers perceive the role of AI in lesson planning and material development?

RQ2. How do pre-service English teachers perceive the contribution of AI to creativity and pedagogical innovation?

RQ3. How do pre-service English teachers perceive the influence of AI on efficiency and time management?

RQ4. How do pre-service English teachers perceive the impact of AI-supported activities on student engagement and classroom interaction?

RQ5. What concerns and limitations do pre-service English teachers identify regarding AI integration in ELT?

2. Literature Review

2.1 Artificial Intelligence in Education

Artificial intelligence (AI) has become an important component of contemporary educational practice. Recent developments in generative AI have expanded the capabilities of educational technologies by enabling the rapid production of text, learning materials, and instructional resources. Researchers have highlighted the potential of AI to support personalized learning, adaptive instruction, and educational productivity while creating new opportunities for teaching and learning (Holmes et al., 2019; Zawacki-Richter et al., 2019; Kasneci et al., 2023). As AI applications become increasingly accessible, attention has shifted from technological possibilities to their pedagogical implications in classroom settings.

2.2 Generative AI and English Language Teaching

The integration of generative AI has gained particular relevance in English language teaching (ELT), where instructional preparation often involves creating materials, designing activities, and adapting content to learners' proficiency levels. Generative AI can produce language-learning resources, discussion prompts, writing tasks, and assessment materials within a short time, making it a useful instructional resource for language educators (Kohnke et al., 2023; Moorhouse & Kohnke, 2024).

Studies conducted with language teachers and teacher candidates indicate that AI is increasingly used to support instructional preparation and classroom activities. Research also suggests that AI may contribute to more flexible and responsive teaching practices by enabling rapid content adaptation and providing multiple instructional alternatives (Castillo-Cuesta et al., 2025; Karaduman, 2025).

2.3 AI-Supported Lesson Planning and Material Development

Lesson planning is one of the areas in which generative AI has demonstrated considerable potential. Teachers can use AI tools to generate lesson outlines, classroom activities, worksheets, discussion questions,

and assessment tasks. Such applications may reduce preparation time while providing access to a wider range of instructional ideas.

Research consistently shows that pre-service teachers employ AI during lesson preparation. Kerr and Kim (2025) found that teacher candidates used generative AI for lesson organization, activity development, and content creation. Similarly, Kılıçkaya and Kic-Drgas (2025) reported that AI facilitated the development of instructional materials and supported the adaptation of resources for different learner groups.

In addition to content generation, AI enables teachers to modify and differentiate materials according to instructional objectives and learner needs (Huang et al., 2025). These findings suggest that AI can support planning processes by increasing flexibility and reducing routine preparation demands.

2.4 AI and Teacher Creativity

Creativity is a fundamental component of effective language teaching because teachers are expected to design engaging learning experiences and respond flexibly to classroom needs. Recent research suggests that generative AI may support creativity by facilitating idea generation and exposing teachers to alternative instructional possibilities.

Castillo-Cuesta et al. (2025) reported that teacher candidates frequently used AI for brainstorming and developing teaching ideas. Likewise, Yadav et al. (2026) found that AI assisted participants in designing innovative activities and exploring diverse instructional approaches. Rather than replacing teacher creativity, AI appears to function as a source of inspiration that broadens the range of pedagogical options available during instructional planning.

2.5 AI, Student Engagement, and Classroom Interaction

Student engagement is closely associated with motivation, participation, and successful learning outcomes. Within language education, maintaining learners' attention and involvement remains a persistent instructional challenge. AI-supported teaching practices may contribute to engagement by facilitating interactive, personalized, and activity-based learning experiences.

Research indicates that AI-generated activities can increase learners' interest and participation in classroom tasks. Castillo-Cuesta et al. (2025) found that teacher candidates perceived AI as a useful resource for creating motivating learning experiences, while Kılıçkaya and Kic-Drgas (2025) reported that AI-supported activities encouraged classroom interaction. These findings suggest that AI may contribute to more dynamic and participatory learning environments.

2.6 Risks and Ethical Concerns of AI Integration

Despite its educational benefits, AI integration has generated several concerns among researchers and practitioners. One of the most frequently discussed issues involves the accuracy and reliability of AI-generated content. Generative AI systems may occasionally produce inaccurate information, misleading explanations, or fabricated content, creating challenges for educational use (Kasneci et al., 2023). Another concern relates to overreliance on AI tools. Researchers have argued that excessive dependence on AI-generated materials may reduce teachers' engagement in instructional decision-making and limit opportunities for independent thinking and originality (Yadav et al., 2026). Similar concerns have been expressed regarding students' reliance on AI during learning activities. The literature has also identified contextual limitations of AI-generated content. Materials produced by AI may not always reflect specific classroom realities, learner characteristics, curricular requirements, or cultural contexts. Consequently, teachers often need to modify and adapt AI-generated outputs before using them in educational settings (Kılıçkaya & Kic-Drgas, 2025).

These findings suggest that while AI offers important instructional opportunities, its integration requires careful consideration of potential limitations and challenges. Effective use depends not only on access to AI technologies but also on teachers' ability to evaluate and adapt AI-generated resources within specific educational contexts.

2.7 AI in Pre-Service Teacher Education

The increasing visibility of AI in educational settings has generated growing interest in its role within teacher education. Studies consistently indicate that pre-service teachers recognize the potential of AI to support lesson preparation, generate instructional ideas, improve efficiency, and enhance classroom engagement (Karaduman, 2025; Huang et al., 2025).

At the same time, teacher candidates acknowledge that AI cannot replace pedagogical expertise or contextual decision-making. Rather, AI is generally viewed as a supplementary instructional resource that can support teaching processes when used appropriately. Although existing research provides valuable insights into AI integration, further investigation is needed to understand how pre-service English teachers simultaneously

perceive AI's contributions to lesson planning, creativity, efficiency, student engagement, and its associated limitations.

2.8 Conceptual Framework

Drawing on the literature, the present study conceptualizes AI integration in ELT as a multidimensional process that influences instructional planning, pedagogical creativity, teaching efficiency, and classroom engagement while simultaneously presenting potential challenges. Accordingly, the study examines five interconnected dimensions of AI-supported teaching:

3. Methodology

3.1 Research Design

This study employed a qualitative case study design to explore pre-service English teachers' perspectives on the use of artificial intelligence (AI) in English language teaching. Qualitative case studies enable researchers to investigate participants' experiences, perceptions, and interpretations of a contemporary phenomenon within a specific educational context (Merriam & Tisdell, 2016; Yin, 2018). The design was considered appropriate because the study aimed to obtain an in-depth understanding of how pre-service teachers perceived the contributions and limitations of AI-supported teaching practices during their teacher education experiences.

3.2 Context of the Study

The study was conducted in the English Language Teaching (ELT) Department of a foundation university located in Istanbul, Türkiye, during the 2025–2026 academic year. Participants were enrolled in the ELT program and had experience using AI-powered tools to support various teaching-related tasks, including lesson planning, material development, activity design, and classroom preparation.

As AI applications have become increasingly accessible in educational settings, pre-service teachers have begun incorporating tools such as ChatGPT and other generative AI applications into their academic and instructional practices. This context provided a suitable setting for examining how future English language teachers perceived the role of AI in supporting creativity, efficiency, and student engagement in language teaching.

3.3 Participants

The participants were selected through purposive sampling, which is commonly used in qualitative research to identify individuals who possess relevant experience related to the phenomenon under investigation (Patton, 2015). The participants consisted of pre-service English teachers enrolled in the ELT program at the selected university. Initially, 54 questionnaires were collected. Following data screening, six questionnaires were excluded because they contained substantial missing responses or insufficient detail for qualitative analysis. Consequently, 48 questionnaires containing sufficiently detailed responses were included in the final analysis. All participants were senior pre-service English teachers who had completed the majority of their teacher education coursework and had experience with AI-supported instructional practices. Their familiarity with both English language teaching and AI applications enabled them to provide detailed reflections regarding the benefits and limitations of AI integration in ELT.

3.4 Data Collection

Data were collected through an open-ended questionnaire developed by the researcher. Open-ended questionnaires are widely used in qualitative research because they allow participants to express their experiences and opinions in their own words while providing rich descriptive data (Creswell & Poth, 2018).

The questionnaire consisted of four sections designed to explore different dimensions of AI-supported teaching practices.

Section A: AI and Teaching Practices: This section focused on participants' experiences with AI use in lesson planning, instructional preparation, and material development.

Section B: Creativity and Innovation: Questions in this section explored how AI contributed to idea generation, creative teaching practices, and pedagogical innovation.

Section C: Student Engagement: This section examined participants' perceptions of the influence of AI-supported activities on student motivation, participation, classroom interaction, and engagement.

Section D: Advantages and Limitations: The final section investigated participants' views regarding the benefits, challenges, and limitations associated with AI integration in English language teaching.

The questionnaire was reviewed by two experts in English language teaching to ensure clarity, relevance, and content appropriateness before data collection.

3.5 Data Analysis

The data were analyzed using thematic analysis following the six-phase framework proposed by Braun and Clarke (2006). Thematic analysis provides a systematic approach for identifying, organizing, and interpreting patterns of meaning within qualitative data.

The analysis process involved six stages: (1) familiarization with the data through repeated reading of participants' responses, (2) generation of initial codes, (3) searching for potential themes, (4) reviewing and refining themes, (5) defining and naming themes, and (6) producing the final report.

Through this process, five major themes and their associated subthemes were identified. These themes reflected participants' perceptions regarding lesson planning and material development, creativity and pedagogical innovation, efficiency and time management, student engagement and classroom interaction, and the perceived risks and limitations of AI integration.

3.6 Trustworthiness

To enhance the trustworthiness of the study, the criteria proposed by Lincoln and Guba (1985) were followed.

Credibility: Credibility was established through prolonged engagement with the data and repeated examination of participants' responses throughout the coding and theme development processes.

Transferability: Detailed descriptions of the research context, participant group, and research procedures were provided to allow readers to evaluate the applicability of the findings to other educational contexts.

Dependability: A systematic record of the research procedures, coding process, and theme development was maintained to ensure consistency throughout the study.

Confirmability: The findings were grounded in participants' responses, and representative quotations were included to support the interpretation of themes and minimize researcher bias.

3.7 Ethical Considerations

The study was conducted in accordance with established ethical principles for educational research. Participation was entirely voluntary, and participants were informed about the purpose of the study prior to data collection. Completion of the questionnaire was considered an indication of informed consent. Participants were assured that their responses would remain confidential and would be used solely for research purposes. No personally identifiable information was collected, and all responses were anonymized during the analysis and reporting processes. To protect participants' privacy, identification codes were assigned to questionnaire responses when representative quotations were reported.

The research procedures were guided by the ethical principles outlined in the British Educational Research Association (BERA) Ethical Guidelines for Educational Research (2024), including voluntary participation, informed consent, confidentiality, anonymity, and respect for participants' rights throughout the research process.

4. Findings

The thematic analysis of participants' responses resulted in five major themes and seventeen related subthemes. These themes reflect pre-service English teachers' perceptions of the role of artificial intelligence in lesson planning and material development, creativity and pedagogical innovation, efficiency and time management, student engagement and classroom interaction, and the perceived risks and limitations of AI integration. An overview of the identified themes and subthemes is presented in Table 1.

Table 1: Overview of Themes and Subthemes Emerging from the Thematic Analysis

Theme	Subthemes
Theme 1. AI as a Tool for Lesson Planning and Material Development	Content Generation; Material Adaptation; Instructional Support
Theme 2. Enhancing Creativity and Pedagogical Innovation	Idea Generation; Innovative Teaching Activities; Diverse Instructional Approaches
Theme 3. Improving Efficiency and Time Management	Reducing Workload; Saving Time; Increasing Productivity
Theme 4. Promoting Student Engagement and Classroom Interaction	Increased Motivation; Active Participation; Attention and Interest; Interactive Learning Environment
Theme 5. Perceived Risks and Limitations of AI Integration	Dependency on AI; Reduced Creativity; Inaccurate Outputs and Hallucinations; Contextual and Pedagogical Limitations

Theme 1: AI as a Tool for Lesson Planning and Material Development

Analysis of participants' responses revealed that artificial intelligence was primarily perceived as a practical tool that supports lesson planning and material development. Participants frequently described AI applications as resources that facilitate instructional preparation, provide teaching materials, and assist teachers in designing classroom activities. Three subthemes emerged within this theme: content generation, material adaptation, and instructional support.

Subtheme 1.1: Content Generation

A substantial number of participants reported using AI tools to generate lesson content, worksheets, classroom activities, visual materials, and instructional resources. Participants emphasized that AI applications enabled them to produce teaching materials more efficiently and provided immediate access to a wide range of educational resources.

One participant explained: "ChatGPT and Claude are useful for preparing lesson plans and classroom activities." (P16)

Similarly, another participant stated: "AI helps teachers create content and materials appropriate for students' levels and needs." (P8)

Several participants identified ChatGPT, Gemini, Claude, Canva AI, and MagicSchool AI as particularly useful tools for generating instructional materials and supporting classroom preparation.

Subtheme 1.2: Material Adaptation

Participants also highlighted AI's ability to adapt and diversify instructional materials. Many respondents noted that AI could modify content according to students' proficiency levels, interests, and learning needs, making lessons more accessible and engaging.

One participant commented: "AI provides teachers with a variety of content and materials suitable for students' levels, ages, and needs." (P8)

Another participant indicated: "It helps develop materials that are appropriate for the topic being taught." (P7)

These findings suggest that participants viewed AI not only as a content-generation tool but also as a resource for tailoring instructional materials to different educational contexts.

Subtheme 1.3: Instructional Support

Beyond content creation, participants perceived AI as a source of instructional support throughout the planning process. AI was frequently described as a tool that provides suggestions, offers alternative teaching approaches, and assists teachers when they encounter difficulties during lesson preparation.

One participant explained: "When my own ideas are limited, AI support becomes very helpful." (P6)

Similarly, another participant stated: "The suggestions offered by AI help teachers improve their lesson plans and classroom activities." (P8)

Overall, participants viewed AI as an instructional assistant that facilitates lesson preparation, expands access to teaching resources, and supports pedagogical decision-making. The findings indicate that AI has become an important component of pre-service teachers' instructional planning processes.

Theme 2: Enhancing Creativity and Pedagogical Innovation

Participants generally perceived AI as a valuable resource for enhancing creativity and supporting pedagogical innovation in English language teaching. Many respondents emphasized that AI tools provided inspiration, generated new ideas, and encouraged teachers to explore alternative instructional approaches. Three subthemes emerged within this theme: idea generation, innovative teaching activities, and diverse instructional approaches.

Subtheme 2.1: Idea Generation

One of the most frequently reported benefits of AI was its ability to generate ideas and inspire teachers during lesson preparation. Participants indicated that AI applications provided suggestions when they struggled to develop activities or instructional strategies independently.

One participant stated: "AI positively influences creativity because it provides many different ideas." (P1)

Similarly, another participant explained: "When my own ideas are not sufficient, AI support becomes highly effective." (P6)

Several participants described AI as a source of inspiration that helped them overcome creative blocks and identify new possibilities for classroom instruction. Rather than replacing teachers' creativity, AI was often viewed as a catalyst that stimulated creative thinking and expanded instructional possibilities.

Subtheme 2.2: Innovative Teaching Activities

Participants also highlighted the role of AI in generating innovative classroom activities. Many respondents reported that AI tools could produce role-plays, discussion tasks, games, and interactive activities that could be adapted to different teaching contexts.

One participant commented: "AI provides inspiration for role-play, discussion, and game-based activities." (P16)

Another participant noted: "Thanks to AI, more interesting and entertaining activities can be created in a shorter amount of time." (P13)

Participants emphasized that AI-supported activities often increased variety within lessons and encouraged more dynamic learning experiences. These findings suggest that AI contributes to pedagogical innovation by expanding the range of classroom activities available to teachers.

Subtheme 2.3: Diverse Instructional Approaches

A third subtheme concerned AI's contribution to instructional diversity. Participants reported that AI offered multiple alternatives for presenting content, organizing lessons, and addressing learner needs. Rather than relying on a single teaching approach, teachers could explore different strategies and select the most appropriate option for their classrooms.

One participant stated: "AI offers several alternatives, allowing teachers to choose and improve activities." (P8)

Similarly, another participant explained: "It helps teachers develop different materials and instructional approaches." (P6)

Participants frequently associated AI with flexibility, variety, and innovation. They believed that exposure to multiple instructional possibilities encouraged experimentation and supported more engaging learning experiences.

Overall, the findings indicate that participants viewed AI as an important source of creativity and pedagogical innovation. Through idea generation, activity design, and instructional diversification, AI was perceived as supporting more creative and flexible approaches to English language teaching.

Theme 3: Improving Efficiency and Time Management

Analysis of participants' responses revealed that efficiency and time management constituted one of the most prominent benefits associated with AI-supported teaching practices. Participants frequently emphasized that AI tools accelerated lesson preparation, reduced routine workload, and enabled them to complete instructional tasks more efficiently. Three subthemes emerged within this theme: reducing workload, saving time, and increasing productivity.

Subtheme 3.1: Reducing Workload

Many participants reported that AI applications simplified demanding teaching tasks and reduced the amount of effort required during lesson preparation. Activities such as material development, content generation, worksheet preparation, and activity design were perceived as less time-consuming when supported by AI tools.

One participant explained: "AI makes educational processes more efficient by reducing manual work." (P21)

Similarly, another participant stated: "It provides quick access to information and reduces the effort needed to prepare materials." (P34)

These responses suggest that participants perceived AI as a practical tool that alleviates routine instructional responsibilities and supports teachers during preparation processes.

Subtheme 3.2: Saving Time

Time saving emerged as one of the most frequently mentioned benefits of AI integration. Participants repeatedly emphasized that AI enabled them to complete instructional tasks more rapidly than traditional methods.

One participant noted: "It is beneficial in terms of time management and efficiency." (P7)

Another participant stated: "AI provides significant time savings while preparing lessons and activities." (P18)

Several participants highlighted that AI-generated materials could be produced within minutes, allowing teachers to allocate more time to other instructional responsibilities. These findings indicate that AI was widely perceived as a tool that enhances efficiency by accelerating preparation processes.

Subtheme 3.3: Increasing Productivity

Beyond saving time, participants believed that AI increased overall productivity. AI tools were viewed as resources that provide multiple alternatives, organize information efficiently, and facilitate instructional planning.

One participant commented: "It increases efficiency by providing content diversity and supporting time management." (P11)

Another participant explained: "A teacher can quickly obtain different ideas and suggestions on a topic." (P37)

Overall, participants viewed AI as a productivity-enhancing resource that supports instructional effectiveness while reducing the demands associated with lesson preparation.

Theme 4: Promoting Student Engagement and Classroom Interaction

Participants consistently emphasized the positive influence of AI-supported activities on student engagement and classroom interaction. Responses suggested that AI-assisted instructional practices contributed to higher levels of motivation, participation, attention, and interaction. Four subthemes emerged within this theme: increased motivation, active participation, attention and interest, and interactive learning environments.

Subtheme 4.1: Increased Motivation

Many participants reported that AI-supported activities increased students' motivation to participate in classroom tasks. AI-generated materials were often described as appealing, innovative, and engaging, which encouraged learners to become more involved in lessons.

One participant stated: "Students become more willing to participate in activities." (P29)

Similarly, another participant noted: "Their motivation toward the lesson increases." (P31)

Participants frequently associated AI-supported learning activities with greater enthusiasm and willingness to engage in classroom tasks.

Subtheme 4.2: Active Participation

A second subtheme concerned students' active involvement in learning processes. Participants indicated that AI-supported activities encouraged learners to take a more active role during lessons.

One participant explained: "Participation increases." (P17)

Another participant commented: "Students take a more active role in the learning process." (P32)

These findings suggest that AI-assisted instructional activities may contribute to learner-centered classroom environments by encouraging active engagement.

Subtheme 4.3: Attention and Interest

Participants also emphasized the ability of AI-supported activities to capture students' attention and sustain interest throughout lessons. Many respondents reported that technology-enhanced activities were perceived as more attractive and stimulating than conventional classroom tasks.

One participant stated: "It attracts students' attention considerably." (P36)

Another participant noted: "Students generally develop feelings of curiosity and enthusiasm." (P45)

The findings indicate that AI-supported instructional materials may enhance classroom engagement by increasing learners' attention and interest.

Subtheme 4.4: Interactive Learning Environment

The final subtheme concerned classroom interaction. Participants believed that AI-assisted activities fostered more dynamic and interactive learning environments by encouraging communication, participation, and collaborative engagement.

One participant explained: "It increases classroom interaction significantly." (P45)

Similarly, another participant stated:

"When integrated appropriately, it positively affects participation and interaction." (P31)

Overall, participants perceived AI-supported teaching practices as valuable tools for creating engaging, interactive, and participatory classroom environments.

Theme 5: Perceived Risks and Limitations of AI Integration

Although participants generally expressed positive attitudes toward AI-supported teaching practices, they also identified several concerns and limitations. Four subthemes emerged within this theme: dependency on AI, reduced creativity, inaccurate outputs and hallucinations, and contextual and pedagogical limitations.

Subtheme 5.1: Dependency on AI

One of the most frequently expressed concerns involved the possibility of excessive reliance on AI tools. Participants worried that both teachers and students might become dependent on AI-generated solutions rather than developing their own ideas and problem-solving abilities.

One participant stated: "Students may become dependent on artificial intelligence instead of learning independently." (P26)

Another participant commented: "Overreliance on AI can encourage passivity and reduce personal effort." (P18)

These responses indicate concerns regarding the potential impact of AI on learner autonomy and independent thinking.

Subtheme 5.2: Reduced Creativity

Participants also expressed concerns that excessive use of AI might negatively affect creativity. Several respondents suggested that constant reliance on AI-generated ideas could reduce originality and discourage creative thinking.

One participant explained: "AI may limit creativity." (P21)

Similarly, another participant stated: "It can make people too comfortable and reduce their tendency to generate original ideas." (P39)

These findings suggest that participants viewed creativity as a potential area of concern when AI is used excessively.

Subtheme 5.3: Inaccurate Outputs and Hallucinations

Another commonly identified limitation concerned the reliability of AI-generated content. Participants acknowledged that AI systems occasionally produce inaccurate information, misleading explanations, or fabricated content.

One participant noted: "Hallucinations remain one of the limitations of artificial intelligence." (P44)

Another participant explained: "AI-generated information should always be checked because it may not be completely reliable." (P21)

Participants therefore emphasized the importance of reviewing and verifying AI-generated materials before classroom use.

Subtheme 5.4: Contextual and Pedagogical Limitations

Finally, participants highlighted the difficulty of adapting AI-generated materials to specific educational contexts. Several respondents noted that AI outputs may not always correspond to classroom realities, learner needs, or curricular objectives.

One participant stated: "AI-generated materials may not always fit every classroom context." (P11)

Another participant commented: "The quality of the output depends heavily on how prompts are designed." (P40)

Overall, participants recognized that although AI offers numerous advantages, its effectiveness depends on thoughtful implementation and careful adaptation to instructional contexts.

5. Discussion

5.1 AI as a Pedagogical Assistant

The findings indicate that pre-service English teachers primarily perceived AI as a pedagogical assistant that facilitates lesson planning and material development. Participants frequently reported using AI tools to generate lesson content, prepare instructional materials, and obtain suggestions for classroom activities. These findings support previous research demonstrating that generative AI can assist teachers in instructional planning by providing rapid access to teaching resources and reducing preparation demands (Kerr & Kim, 2025; Kılıçkaya & Kic-Drgas, 2025; Huang et al., 2025).

Participants also emphasized AI's role in adapting materials to different learner needs and instructional contexts. This finding aligns with previous studies suggesting that AI can support differentiated instruction by enabling teachers to modify content according to students' proficiency levels and learning characteristics (Huang et al., 2025). Rather than replacing teachers' professional judgment, AI appeared to function as a supportive resource that enhanced instructional preparation and planning.

5.2 Creativity Enhancement Through AI

Another significant finding concerns the contribution of AI to creativity and pedagogical innovation. Participants described AI as a source of inspiration that helped them generate ideas, develop innovative

activities, and explore alternative instructional approaches. This finding is consistent with Castillo-Cuesta et al. (2025), who reported that teacher candidates frequently used AI as a brainstorming tool during instructional design.

The results further suggest that AI may broaden teachers' pedagogical repertoires by exposing them to diverse teaching strategies and activity formats. Participants frequently associated AI with flexibility, variety, and innovation. These findings support previous arguments that generative AI can facilitate creative instructional design by providing multiple alternatives and encouraging experimentation with different teaching approaches (Castillo-Cuesta et al., 2025; Yadav et al., 2026). Similar findings were reported by Bae et al. (2024), who found that pre-service teachers viewed generative AI as a useful resource for supporting creativity and instructional design.

Importantly, participants generally viewed AI as a tool that supports creativity rather than replacing it. This perception reinforces the idea that AI functions most effectively when combined with teachers' own pedagogical knowledge, experience, and imagination.

5.3 Efficiency Gains in ELT Practices

Efficiency emerged as one of the most prominent benefits identified by participants. Many respondents emphasized that AI reduced workload, accelerated lesson preparation, and increased productivity. These findings are consistent with previous studies reporting that AI can streamline routine instructional tasks, reduce preparation time, and support more efficient instructional planning (Moorhouse & Kohnke, 2024; Kerr & Kim, 2025; Kılıçkaya & Kic-Drgas, 2025).

The findings suggest that AI has particular value in language teaching contexts, where lesson preparation often requires substantial effort in developing materials, activities, and assessments. By automating aspects of content generation and instructional planning, AI appears to support more efficient teaching practices while maintaining instructional quality.

The prominence of efficiency-related responses also reflects the practical realities faced by pre-service teachers, who often balance coursework, practicum responsibilities, and lesson preparation simultaneously. In this regard, AI may serve as a valuable support mechanism during teacher preparation.

5.4 Student Engagement in AI-Supported Learning

Participants consistently reported positive perceptions regarding the influence of AI-supported activities on student engagement. They indicated that AI-generated materials and activities increased motivation, encouraged participation, and contributed to more interactive classroom environments. These findings correspond with previous research suggesting that technology-enhanced learning environments can promote engagement through interactive and learner-centered experiences (Bond et al., 2020). Similarly, Castillo-Cuesta et al. (2025) reported that AI-supported instructional activities may contribute to learner motivation, participation, and classroom interaction.

The findings further indicate that AI-supported activities may increase students' attention and interest by introducing novel and varied learning experiences. Participants frequently associated AI with enjoyable, dynamic, and interactive classroom practices. Similar observations have been reported in studies highlighting the potential of AI-supported instruction to enhance learner participation and classroom interaction (Castillo-Cuesta et al., 2025).

From a pedagogical perspective, these findings suggest that AI can support the creation of learning environments that encourage active participation and sustained engagement in language learning activities.

5.5 Balancing Opportunities and Risks

Although participants generally viewed AI positively, they also identified several risks and limitations. Concerns regarding dependency on AI, reduced creativity, inaccurate outputs, and contextual limitations emerged as recurring themes. These findings are consistent with previous literature emphasizing the potential dangers of excessive reliance on AI-generated content and the possibility of misinformation generated by AI systems (Kasneji et al., 2023). These concerns parallel those identified by Bae et al. (2024), whose participants acknowledged both the benefits and the challenges of integrating generative AI into teaching and learning.

Participants also expressed concerns that excessive use of AI could discourage originality and independent thinking. Similar concerns have been reported by Yadav et al. (2026), who argued that overreliance on AI may limit opportunities for creative problem-solving and reflective decision-making.

Another important finding relates to the contextual limitations of AI-generated materials. Participants recognized that AI outputs often require adaptation before classroom implementation. This observation supports previous research suggesting that AI-generated content may not always align with specific learner characteristics, curricular objectives, or classroom realities (Kılıçkaya & Kic-Drgas, 2025).

Overall, the findings suggest that the benefits of AI can be maximized when teachers use AI critically and selectively rather than relying on it uncritically.

5.6 Implications for Teacher Education

The findings have several implications for English language teacher education programs. First, teacher education curricula should provide opportunities for pre-service teachers to gain practical experience with AI-supported instructional tools. Familiarity with AI applications may help future teachers use these technologies more effectively for lesson planning, material development, and classroom instruction. The findings support previous recommendations emphasizing the importance of providing future teachers with opportunities to explore AI-supported instructional practices during teacher education programs (Karaduman, 2025; Huang et al., 2025).

Second, teacher education programs should encourage future teachers to view AI as a complementary instructional resource rather than a substitute for pedagogical expertise. Developing the ability to adapt, evaluate, and contextualize AI-generated materials remains essential for effective classroom practice. Similar conclusions have been reported in studies highlighting the role of teacher education programs in preparing future educators to integrate AI effectively into classroom practice (Karaduman, 2025; Huang et al., 2025).

Finally, teacher educators may consider incorporating AI-supported instructional design activities into methodology and practicum courses. Such experiences can help pre-service teachers explore innovative teaching practices while developing a balanced understanding of both the opportunities and limitations associated with AI integration in English language teaching.

6. Conclusion

This study explored pre-service English teachers' perspectives on the use of artificial intelligence in English language teaching, focusing on lesson planning and material development, creativity and pedagogical innovation, efficiency and time management, student engagement, and perceived limitations. The findings revealed that participants generally viewed AI as a valuable instructional resource that supports various aspects of teaching practice.

The results indicated that AI contributed to lesson planning by facilitating content generation, material adaptation, and instructional preparation. Participants also perceived AI as a source of inspiration that encouraged creativity and pedagogical innovation through idea generation and the development of diverse teaching activities. Furthermore, AI was widely regarded as a tool that improved efficiency by reducing workload, saving time, and increasing productivity during lesson preparation processes.

Another important finding was the positive influence of AI-supported activities on student engagement. Participants reported that AI-assisted instructional practices could enhance learner motivation, increase participation, and contribute to more interactive classroom environments. At the same time, they expressed concerns regarding excessive dependence on AI, reduced originality, inaccurate outputs, and the contextual limitations of AI-generated content.

Overall, the findings suggest that AI has considerable potential to support English language teaching when used thoughtfully and purposefully. Rather than replacing teachers, AI appears to function as a pedagogical resource that can enrich instructional planning, stimulate creativity, improve efficiency, and enhance student engagement. However, the successful integration of AI into language education requires teachers to critically evaluate and adapt AI-generated materials according to the needs of specific learners and educational contexts.

The study contributes to the growing literature on AI-supported language teaching by providing qualitative insights into how pre-service English teachers perceive the opportunities and challenges associated with AI integration. As AI technologies continue to evolve, understanding teachers' experiences and perceptions will remain essential for informing effective educational practices and teacher preparation programs.

7. Limitations

This study has several limitations. First, the participants were drawn from a single foundation university in Istanbul, which may limit the transferability of the findings to other contexts. Second, the study relied on self-reported perceptions collected through open-ended questionnaires rather than direct observations of classroom practices. Third, the data were collected at a single point in time and therefore reflect participants' views during a specific period. Finally, the study adopted a qualitative approach, which provides depth of understanding but does not allow for statistical generalization.

8. Recommendations for Future Research

Future research may employ mixed-methods and longitudinal designs to provide a more comprehensive understanding of AI integration in language teaching. Studies involving participants from different institutions and cultural contexts could offer broader perspectives on AI-supported teaching practices. In addition, experimental research examining the effects of AI-supported lesson planning, material development, and classroom activities on student learning outcomes would further contribute to the field.

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