

The Impact of Artificial Intelligence (AI) on High School Lesson Planning

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ARTICLE INFO	ABSTRACT
Received: 18 March 2026	The rapid development of artificial intelligence (AI) has created new opportunities for improving teaching practices, particularly in classroom management and lesson planning. This study aims to examine pre-service English teachers' perceptions of AI in classroom management and investigate the extent to which AI technologies are used in lesson planning. A qualitative research approach was employed to explore participants' experiences, perceptions, benefits, challenges, and recommendations regarding AI-supported teaching. Data were collected through a semi-structured questionnaire consisting of open-ended questions and were analyzed thematically by identifying recurring patterns related to AI perceptions, experiences, applications, benefits, and challenges. The findings reveal that participants generally held positive perceptions of AI and viewed it as a useful tool for improving teaching efficiency, supporting classroom management, generating instructional materials, designing assessments, and providing personalized learning opportunities. AI was also perceived as useful for brainstorming lesson ideas, locating and adapting resources, developing differentiated materials, and creating engaging learning activities. However, the extent of AI use varied among participants. Some actively integrated AI tools into their teaching practices, whereas others remained cautious or had limited experience. Participants identified several challenges, including data privacy, algorithmic bias, accuracy and reliability of AI-generated feedback, reduced teacher-student interaction, and the risk of overreliance on technology. They also emphasized the importance of maintaining teacher autonomy and professional judgment. The study concludes that AI has considerable potential to support English language education when used responsibly and ethically. Continuous professional development, practical training, institutional support, and critical evaluation of AI-generated content are necessary to ensure that AI complements rather than replaces teachers' pedagogical expertise and human interaction.
Accepted: 08 June 2026	
Published: 01 July 2026	
Keywords: Artificial Intelligence, Classroom Management, Lesson Planning, Pre-Service English Teachers, AI Integration	

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1. Introduction

The rapid development of artificial intelligence (AI) has significantly transformed education, including how teachers design, deliver, and evaluate learning. Generative AI (GenAI) and large language models (LLMs) are increasingly used to support instructional material development, learning activities, assessment, personalized resources, and teacher tasks (Mustafa et al., 2024; Bond et al., 2024). One important application is lesson planning, where AI can generate lesson structures, activities, materials, and assessment ideas. Research shows that teachers perceive ChatGPT as useful for lesson planning, although its effectiveness depends on teachers' ability to evaluate and adapt its outputs (ElSayary, 2024). GenAI can also support the early stages of collaborative lesson planning, particularly through idea generation and operational assistance, while human facilitation remains essential for deeper pedagogical engagement (Sun & Huang, 2025).

AI should therefore be viewed as a support tool rather than a replacement for teachers. LLMs provide opportunities for content generation and personalized learning but raise concerns about accuracy, bias, and responsible use (Kasneci et al., 2023). Similarly, ChatGPT creates educational opportunities while presenting challenges related to misinformation, academic integrity, privacy, and teacher-technology relationships (Tlili et al., 2023). In lesson planning, the usefulness of GenAI also depends on teachers' AI literacy and prompt-engineering skills. ElSayary (2025) found that effective prompting can improve the efficiency and relevance of AI-generated lesson plans, highlighting the importance of professional development and teachers' critical evaluation of AI outputs.

Human oversight is particularly important because AI-generated content may be inaccurate, incomplete, biased, or inappropriate for specific learners. A systematic scoping review identified reliability, privacy, bias, academic integrity, and human oversight as major challenges of LLM use in education (Yan et al., 2024). Lee et al. (2024) further demonstrate that algorithmic bias can occur throughout the LLM life cycle and may contribute to educational inequalities. Consequently, teachers need to verify, contextualize, and align AI-generated materials with curriculum objectives, learner characteristics, and classroom conditions. Ethical implementation also requires transparency, fairness, responsibility, privacy, autonomy, pedagogical appropriateness, children's rights, AI literacy, and teacher well-being (Adams et al., 2023).

Teachers' perceptions, readiness, and AI literacy are also crucial to successful AI integration. Teachers may appreciate AI for reducing workload, generating instructional ideas, and supporting personalized learning, while remaining concerned about accuracy, privacy, ethics, professional identity, and technological dependence (ElSayary, 2024). Petrucco et al. (2025), in a mixed-method study involving 1,223 teachers, found that teachers' understanding of GenAI applications in schools is not always clear, which may influence their willingness to adopt the technology. AI literacy involves the ability to interact with AI, evaluate its outputs, identify limitations, and use it responsibly (Huang et al., 2024). For language teachers, readiness to use ChatGPT may influence innovation and accountability (Rahimi & Sevilla-Pavón, 2024), while beginning and early-career teachers may require additional preparation and institutional support (Moorhouse, 2024).

In English language teaching, GenAI offers opportunities to generate language-learning materials, exercises, questions, feedback, and differentiated activities. English teachers generally recognize these pedagogical opportunities but also express concerns about accuracy, ethics, and appropriate classroom use (Al-khresheh, 2024). AI-generated materials must therefore be evaluated for linguistic accuracy, vocabulary and grammar appropriateness, students' proficiency levels, cultural context, and curriculum requirements. AI can also support personalized learning by adjusting content and generating differentiated activities (Mustafa et al., 2024), but teachers must remain responsible for understanding students' needs and determining whether AI recommendations are pedagogically

appropriate.

AI may further assist classroom management by generating classroom rules, behavioral scenarios, differentiated activities, and possible responses to classroom situations. Nevertheless, classroom management requires social interaction, empathy, communication, and contextual judgment that cannot be fully automated. Human qualities such as creativity, emotional connection, and professional judgment remain important despite advances in GenAI (Willis et al., 2024). Differences in teachers' attitudes and patterns of AI use are also influenced by knowledge, training, institutional support, and concerns about reliability and ethics (Rahimi & Sevilla-Pavón, 2024). In addition, perceptions of AI-generated educational content may vary among teachers and students (Lee & Song, 2024).

The integration of AI consequently depends not only on access to technology but also on how teachers understand, evaluate, and use it in practice. A large-scale teacher survey indicates that GenAI requires changes in teaching and assessment practices and increased development of AI-related competencies (Bower et al., 2024). AI-generated lesson plans may appear complete but fail to address specific classroom needs; therefore, teachers must evaluate their alignment with curriculum standards, students' proficiency, resources, and classroom conditions. Sun and Huang (2025) found that although GenAI can support the initial stages of lesson planning, its contribution to deeper cognitive engagement decreases during later iterative stages. This reinforces the need for teachers to actively review, revise, and contextualize AI-generated plans.

The responsible integration of AI thus requires continuous human oversight. Teachers need to verify information, identify potential bias, adapt materials, and ensure alignment with learning objectives (Lee et al., 2024; Yan et al., 2024). Although AI may automate some instructional tasks, it is more appropriately understood as a support or partnership technology rather than a substitute for teachers. Teachers remain important because of their creativity, emotional connection, professional judgment, and ability to address the social dimensions of education (Willis et al., 2024; Selwyn, 2019).

Despite the growing literature on AI in education, limited research has simultaneously examined teachers' perceptions of AI for classroom management and their actual use of AI in lesson planning, particularly among secondary-school English teachers. Existing studies have addressed general attitudes, AI literacy, ethics, and AI-supported teaching, but positive perceptions do not necessarily lead to frequent or effective use. Teachers may acknowledge AI's benefits while remaining hesitant because of concerns about accuracy, ethics, training, accessibility, and professional responsibility.

This study therefore examines the use of AI in English teachers' classroom management and lesson planning. Specifically, it investigates teachers' perceptions of AI as a support tool for classroom management and the extent to which AI technologies are provided and used in lesson planning. By examining both perception and practice, the study seeks to provide a more comprehensive understanding of AI integration in secondary English education, including its opportunities and challenges related to efficiency, personalization, content creation, differentiation, assessment, accuracy, ethics, and teacher autonomy. The study adopts a human-centered perspective in which AI supports teachers while educators remain responsible for pedagogical decisions, classroom relationships, curriculum alignment, and the final evaluation of instructional materials.

Based on this background, the research questions are: (1) How do English teachers perceive the use of AI in classroom management? and (2) To what extent are artificial intelligence technologies provided and used by English teachers in lesson planning? Addressing these questions may contribute empirical insights for teachers, schools, researchers, and policymakers in developing thoughtful, ethical, and pedagogically appropriate approaches to AI integration in secondary English education.

2. Method

This study used a qualitative approach to explore how English language teachers perceive and use artificial intelligence (AI) in classroom management and lesson planning. A qualitative approach is appropriate for investigating participants' experiences, perceptions, and interpretations of emerging educational technologies because it enables researchers to examine phenomena within their natural and contextual settings (Moorhouse, 2024; Al-khresheh, 2024). In particular, qualitative research can provide detailed insights into how teachers understand the opportunities, limitations, and practical implications of generative AI in language education.

Data were collected from college students training to be English teachers through a semi-structured questionnaire containing open-ended questions. This instrument allowed participants to provide detailed responses concerning their familiarity with AI tools, experiences using AI, and perceived benefits and challenges. The use of open-ended questions is relevant for examining teachers' perspectives because previous studies have shown that educators' experiences with generative AI vary according to their knowledge, readiness, perceived usefulness, and concerns regarding ethical and pedagogical issues (Huang et al., 2024; Rahimi & Sevilla-Pavón, 2024). The questionnaire also gathered specific examples of how AI has influenced teaching methods and explored participants' suggestions concerning the future development and implementation of AI in education.

Data analysis involved a thorough review and summarization of the participants' responses, followed by thematic analysis to identify key patterns and themes concerning AI perceptions, experiences, benefits, challenges, and recommendations. Thematic analysis is suitable for qualitative data because it enables researchers to systematically identify, organize, and interpret recurring patterns of meaning across participants' responses. In research on AI in education, qualitative and mixed-method approaches have been used to examine teachers' perceptions and experiences, particularly regarding the opportunities and challenges associated with generative AI (ElSayary, 2024; Petrucco et al., 2025). The identified themes were subsequently interpreted in relation to the research questions and the participants' experiences with AI-supported teaching and lesson planning.

3. Results and Discussion

3.1 *Perceptions of AI in Classroom Management*

This study explored how pre-service English teachers perceive and utilize AI in their classroom management and lesson planning. Most participants held a favourable view of AI's role in education, seeing its potential in automating tasks, personalizing student support, and increasing efficiency in administrative duties such as grading and providing feedback. This positive perception extended to specific AI applications like Google Classroom, virtual assistants, and communication tools, which they believed could aid in tracking student progress, improving parent communication, and maintaining classroom order. They also showed interest in the AI-powered learning platform and how AI will enable personalized feedback, which allows multiple forms of diversity. Some participants highlighted how AI was able to make instruction more engaging and personalized, specifically in differentiated instruction and support.

The actual use of AI tools among the participants varied; some had actively tried to integrate these tools in their teaching, reporting enhanced student engagement and opportunities for more personalized learning, while others had limited experiences or no experience at all with AI in education. For example, some had successfully used the AI features associated with Google Classroom to respond to student writing. Despite the overall optimism, participants also commented on some potential challenges. These concerns included data privacy, impersonal interaction by students, training and support on a holistic level, and ensuring the accuracy and effectiveness of the feedback provided by AI.

Participants also noted the potential for AI algorithms to be biased and the importance of using AI in an ethical manner in classroom management. They said that they wanted more professional development opportunities to learn how to use AI tools for class management effectively.

3.2 Use of AI in Lesson Planning

Generally, lesson planning was viewed by participants as a process that AI could free up time to fuel creativity and adaptive learning processes. Some helpful resources for creating an outline of lessons, including assessment construction and material location and adaptation, were ChatGPT and LessonPlans.com. The pre-service teachers especially appreciated the speed at which these tools work and the ability to provide different versions to suit learners with various learning styles. They also pointed out the potentials for AI tools to contribute to student experience personalization and more focused student support. A few of the participants reported on the time-saving capabilities and potential of AI to give novel insights in lesson planning. It appeared that there were differences in the level to which participants integrated AI into lesson planning. Whereas some used the AI tools in the concrete activities of daily planning, others were a bit cautious in their use.

They also reported using AI for brainstorming of lesson ideas, finding resources, and making differentiated materials. They shared specific examples of how AI helped them in building engaging lessons on things like persuasive writing or exploring Shakespeare's *Romeo and Juliet*, which have led to increased engagement from students and more insightful work. At the same time, they have mentioned risks of overreliance on AI: to keep teachers autonomous in making pedagogical decisions and being critically evaluative regarding the contents AI may offer. The pre-service teachers voiced that there should be more practical trainings, workshops, and collaborations between colleagues for professional sharing of best practice concerning the integration of AI in the English classroom. The participants pointed out that the purpose and intent of using AI tools thoughtfully should be to ethically enhance and complement human interaction and pedagogical expertise, not replace them. The participants further emphasized the need for continuous research and development to be able to maximize, for educational purposes, the benefits of AI while addressing the challenges it presents. Overall, participants felt that AI has the potential to enhance education by making learning more engaging, effective, and tailored to individual needs, but they also emphasized the importance of a balanced and responsible approach to its integration.

4. Discussion

Despite the overall optimism, participants also identified several potential challenges in integrating AI into classroom management. These concerns included data privacy, impersonal interaction with students, limited training and institutional support, and the need to ensure the accuracy and effectiveness of AI-generated feedback. Participants also expressed concerns about algorithmic bias and emphasized the importance of ethical AI use. These findings are consistent with a systematic review of AI in classroom management, which found that privacy, data security, and algorithmic bias remain important ethical concerns, while ethical considerations are still insufficiently addressed in many AI-based classroom applications (Foster et al., 2025). This suggests that teachers' concerns are not merely individual perceptions but reflect broader challenges in the responsible implementation of AI in educational settings.

The participants' demand for more professional development opportunities is also supported by recent research. Effective AI integration requires teachers to develop technological, pedagogical, and ethical knowledge rather than merely learning how to operate AI tools. A recent study on teacher AI professional development emphasizes the need to integrate AI knowledge with pedagogy and ethics through active learning, coaching,

modelling, and reflection (Chen et al., 2026). Similarly, research involving secondary-school teachers found that well-designed professional development can improve teachers' AI literacy and encourage sustained engagement with professional learning communities (Chane et al., 2026). These findings reinforce the participants' view that practical training, workshops, and continuous institutional support are necessary for teachers to use AI effectively and responsibly.

At the same time, participants highlighted the risk of overreliance on AI and stressed the importance of maintaining teacher autonomy in pedagogical decision-making. This finding is particularly important because recent evidence shows that teachers may position GenAI primarily as a generator of instructional content rather than as a tool for collaborative pedagogical reasoning. In a study of K-12 teachers' GenAI-supported lesson planning, teachers frequently relied on AI to generate instructional content, while opportunities for iterative negotiation and co-construction were less common (Moorhouse et al., 2026). This finding supports the participants' concern that teachers should remain critically evaluative of AI-generated content rather than accepting its recommendations without professional judgment.

The participants' emphasis on practical training, workshops, and collaboration with colleagues further demonstrates that AI integration should be understood as a process of professional learning rather than simply technology adoption. Recent research shows that AI-related teacher knowledge develops through situated interaction with GenAI and through the integration of technological and pedagogical knowledge in authentic teaching practices (Moorhouse et al., 2026). Likewise, Chane et al. (2026) found that professional development combined with professional learning communities can strengthen teachers' AI literacy and sustained engagement. Therefore, collaborative professional learning may help teachers exchange practical experiences, evaluate AI-generated materials, and develop context-sensitive strategies for integrating AI into English classrooms.

Participants also emphasized that AI should ethically enhance and complement human interaction and pedagogical expertise rather than replace teachers. This finding is consistent with a human-centered approach to AI in education, which emphasizes the preservation of teacher agency, professional judgment, and human responsibility. UNESCO's AI Competency Framework for Teachers similarly places a human-centered mindset, ethics, AI pedagogy, and professional learning at the core of teachers' competencies for responsible AI use (Miao & Cukurova, 2024). Recent research further argues that AI-supported teaching should preserve professional judgment while developing teachers' capacity to make transparent, ethical, and pedagogically appropriate decisions (Go et al., 2026).

The participants' concerns about privacy, bias, and ethical use are also supported by recent research showing that AI integration in classrooms requires explicit safeguards. Foster et al. (2025) found that privacy-preserving measures and ethical considerations remain limited in AI-supported classroom management research. Similarly, Go et al. (2026) argue that the rapid adoption of AI has created risks involving bias, privacy violations, and inequitable learning environments, highlighting the need for practical ethical guidelines for teachers and students. Thus, the participants' emphasis on responsible AI use indicates an awareness that technological efficiency should not be prioritized at the expense of student rights, fairness, and educational quality.

Overall, the findings indicate that participants viewed AI as having considerable potential to make teaching and learning more engaging, effective, and responsive to individual needs, while simultaneously recognizing its limitations and risks. This balanced perspective is consistent with recent research suggesting that successful AI integration depends on teachers' ability to combine AI capabilities with professional knowledge, critical evaluation, and pedagogical agency (Moorhouse et al., 2026). Therefore, the findings support a human-centered model in which AI functions as an instructional and classroom-

management assistant, while teachers retain responsibility for pedagogical decisions, ethical judgment, student relationships, and the final evaluation of AI-generated content. Continuous research, professional development, institutional support, and collaboration among teachers are consequently essential to maximize the educational benefits of AI while minimizing its potential risks.

5. Conclusion

This study found that pre-service English teachers generally have positive perceptions of Artificial Intelligence (AI) in classroom management and lesson planning. Participants viewed AI as a useful tool for improving teaching efficiency by supporting lesson preparation, creating instructional materials, designing assessments, and providing personalized learning opportunities. However, the level of AI use varied among participants, with some actively integrating AI into their teaching practices while others remained cautious due to concerns about data privacy, bias, accuracy, and the potential reduction of teacher–student interaction.

Overall, the findings suggest that AI has significant potential to enhance teaching and learning when used responsibly and ethically. Rather than replacing teachers, AI should serve as a complementary tool that supports teachers' pedagogical expertise and professional judgment. Therefore, continuous training and professional development are essential to help teachers integrate AI effectively and maximize its benefits in English language education.

Funding

The authors received no specific funding for this research or the publication of this article.

Conflict of Interest

The authors declare that there is no conflict of interest related to this research or the publication of this article.

Authors' Contribution

Rasul Ryondiart: Conceptualization, Methodology, Investigation, Data curation, Formal analysis, Writing-original draft, Writing-review & editing.

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All authors contributed to the development and completion of the manuscript and approved the final version for publication.

Statement of the Use of AI

The authors used artificial intelligence tools for language editing and improving the linguistic clarity of the manuscript. The AI tool was not used to generate research data, conduct data analysis, or make substantive research decisions. The authors remain fully responsible for the content, accuracy, interpretation, and final version of the manuscript.

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