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Students' Experiences of Meaningful, Mindful, and Joyful Learning in an AI-Enhanced English Classroom

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Abstract: This qualitative case study explores tenth-grade students' experiences of meaningful, mindful, and joyful learning in an AI-enhanced English classroom. Conducted at SMAN 1 Kota Bangun, the research employed classroom observations, open-ended questionnaires, and semi-structured interviews to gather insights into how AI tools such as ChatGPT, Gemini, image generators, and Grammarly shaped students' engagement, motivation, and learning depth. Thematic analysis revealed that AI supported personalized learning, encouraged self-regulated preparation, and increased motivation through interactive features. However, challenges such as accuracy issues, distractions, and overreliance on AI were noted. Findings suggest that while AI can complement instructional practices and promote deep learning, its optimal use depends on teacher guidance, student digital literacy, and thoughtful integration into classroom pedagogy.

Keywords: *meaningful learning, mindful learning, joyful learning, artificial intelligence, EFL students.*

INTRODUCTION

In recent years, Artificial Intelligence (AI) has gained attention in English as a Foreign Language (EFL) education due to its potential to improve learning outcomes. AI tools such as chatbots, intelligent tutoring systems, and adaptive learning software are now used to support language learning in many educational settings. These tools adjust the level of instruction according to students' language skills and offer feedback based on their responses (Yaseen & Alnakeeb, 2023). As a result, students receive instruction that matches their needs, and teachers can focus on guiding learning rather than repeating content. AI applications in EFL classrooms support personalized instruction. They help teachers present learning materials in a more flexible format, track student progress in real time, and provide individual assistance when needed. This approach improves student motivation and helps them feel more involved in the learning process. Instructors benefit as well, since AI allows them to observe patterns in student performance and respond with suitable teaching strategies. Despite the growing use of AI, several obstacles limit its effectiveness. Not all schools or institutions have access to reliable internet and digital tools, and some students and teachers are unfamiliar with using such technology. These issues create gaps in access and performance (Wu et al., 2024). Another challenge is the different levels of acceptance toward AI. Some educators are hesitant to rely on technology in the classroom due to lack of training or concerns about its reliability. Recent research points to the additional value of AI in supporting emotional and reflective aspects of language learning. For example, AI-based portfolio assessments help students understand their own progress and improve their awareness of the learning process (Khasawneh et al., 2025). Other studies suggest that AI can play a role in emotion regulation and focus. When designed with this in mind, AI may create a learning space that feels more supportive and engaging (Yang et al., 2025). As AI continues to evolve, its role in EFL education becomes more

significant. It supports both language development and learning experiences. However, further research is needed to explore how AI influences not only academic achievement but also students' sense of connection, focus, and confidence in the classroom.

Deep learning, as introduced by Marton and Säljö (1976), is an approach that focuses on developing in-depth understanding through conceptual knowledge and critical thinking. It promotes active and reflective student engagement with the learning material. Rather than memorizing information, students are expected to build connections, understand core ideas, and apply what they learn in different situations. This approach aims to support both academic progress and personal development. In Indonesia, this framework has begun to shape national education policy. The Minister of Primary and Secondary Education, Abdul Mu'ti, emphasized the importance of deep learning in the 2025 education reform plan. Based on Press Release No. 74/SIPERS/A6/II/2025, the ministry outlined its strategy to build students' higher-order thinking skills. These include analytical reasoning, problem-solving, and collaborative learning. Mu'ti in Tempo (2024), stated that this approach is rooted in three pillars: Meaningful Learning, Mindful Learning, and Joyful Learning. These dimensions reflect a shift toward a student-centered and emotionally responsive learning model. Meaningful learning helps students connect new concepts with what they already know. Mindful learning directs attention to the learning process itself, encouraging awareness and focus. Joyful learning creates a learning atmosphere that increases motivation and reduces pressure. These three elements form the core of the deep learning framework and serve distinct yet complementary functions in shaping student experiences. Meaningful learning provides links between classroom content and real-life contexts. It promotes autonomy, supports deeper comprehension, and emphasizes understanding over memorization (Vargas-Hernández & Vargas-González, 2022; Hanani, 2020). Mindful learning, in turn, enhances focus and reflection, maintaining presence and focus throughout the learning process improves comprehension and enhances learning outcomes. (Ayala & Acuna, 2024; Lin, 2020). Joyful learning introduces an emotional dimension, fostering curiosity and motivation through engaging, dynamic instruction. It reduces student anxiety and promotes positive attitudes toward learning (Wicaksono, 2020, as cited in Donasari et al., 2023; Tafani & Kamaludin, 2023). Several key principles support the deep learning model. First, students are guided toward deep conceptual understanding, where they grasp central ideas instead of relying on rote memorization (Angraini et al., 2024; Ghaleb, 2024). Second, the model encourages critical and creative thinking, allowing students to assess problems, explore alternatives, and design solutions (Widiastuti et al., 2023). Third, it promotes real-world application, where students apply what they learn in practical or professional contexts (Perusso & Baaken, 2020). Another important element is collaborative interaction. Group discussions, debates, and teamwork build social competence and deepen conceptual understanding (Duncan, 2020). Xu (2024) further notes that such interaction also fosters emotional connection with the material and strengthens engagement.

Building on these foundational principles and the emergence of AI-driven technologies, the deep learning framework aligns with the transformative potential of AI in education. Properly designed AI tools can support each of these aspects—through adaptive content delivery, personalized feedback, and learner-centered support. This integration offers a more holistic educational experience, where knowledge, skills, and emotional growth develop in a unified learning process. With these three aspects of deep learning and the advancement of educational technology, new opportunities emerge to explore the role of Artificial Intelligence (AI) in supporting this learning model. AI offers the potential to enhance the quality of instruction

through more personalized, adaptive, and interactive experiences. It can help students receive learning materials that match their needs and pace, while also assisting teachers in tracking student progress, providing timely feedback, and developing instructional strategies that align with each learner's profile. AI also supports the core principles of meaningful, mindful, and joyful learning. For instance, it helps students make stronger connections between concepts and real-world applications, encourages focused engagement during lessons, and increases motivation through interactive formats. However, despite its benefits, the use of AI in classrooms introduces certain challenges. One concern is that excessive reliance on AI may reduce direct interaction between students and teachers, which can hinder the development of essential social and emotional skills (Kharis et al., 2024). To address this, both teachers and students must understand AI's strengths and limitations. They also need to monitor its impact on learning processes and outcomes. With thoughtful implementation and adequate support, AI can become a valuable tool to strengthen meaningful, mindful, and joyful learning in EFL classrooms. This approach can improve not only academic performance, but also foster creativity, critical thinking, and emotional resilience—skills that are vital for navigating the challenges of the digital era.

Previous research highlights the important role of AI-driven tools, such as ChatGPT, in facilitating deep learning across various disciplines. In biology classrooms, for example, AI-integrated media help improve students' competencies by encouraging active participation in discussions. These tools also enhance students' motivation and curiosity, while supporting the development of problem-solving abilities (Haidir, 2024). Similarly, game-based assessments like Kahoot have shown a positive impact on motivation and engagement in physics learning. As an AI-assisted platform, Kahoot uses visually engaging elements—such as vibrant colors, interactive features, and sound effects—that create a dynamic and stimulating classroom environment. This environment helps increase students' focus and motivation. The immediate scoring system offers real-time feedback, which encourages healthy competition and fosters greater interest in problem-solving activities (Sindi et al., 2023). Studies have also examined the use of AI in English language classrooms. Rahmanto and Indah (2023) demonstrated that AI, when used appropriately, can increase students' interest in learning English and assist teachers during instruction. In addition, AI-based mobile applications have been effective in improving English listening skills. Permana and Astawa (2020) found that project-based learning supported by AI tools influences students' attitudes positively and aligns well with the principles of mindful learning. Their findings suggest that AI, when integrated with suitable pedagogical approaches, can enhance language learning experiences. Despite the growing number of studies on AI in education, limited research has explored how students experience deep learning—particularly through meaningful, mindful, and joyful learning—in AI-enhanced English classrooms. Most existing studies focus on learning outcomes, engagement, or skill acquisition, but few address how students make sense of their learning process in emotional, reflective, and personalized ways. To address this gap, the present study aims to explore students' experiences with AI-supported English learning environments, focusing on how they perceive their learning through the lens of meaningful, mindful, and joyful learning. This research also investigates how AI contributes to or disrupts deep learning in classroom contexts, and what factors influence students' motivation and engagement in an AI-based setting.

Accordingly, this study addresses the following research questions:

- How do students experience meaningful, mindful, and joyful learning in an AI-enhanced English classroom?
- In what ways does AI support or hinder deep learning?
- What factors influence students' engagement and motivation in an AI-based learning environment?

RESEARCH METHODOLOGY

This study employed a qualitative case study design to explore students' experiences of meaningful, mindful, and joyful learning in an AI-enhanced English classroom. The case study approach was selected due to its capacity to investigate complex phenomena in naturalistic educational settings, enabling an in-depth understanding of student engagement with AI-integrated learning processes. Data were collected through methodological triangulation, involving three primary instruments: (1) classroom observation, (2) open-ended questionnaires, and (3) semi-structured interviews. All instruments were administered on the same day, May 14, 2025, during a 90-minute English lesson at Class X-1 of SMAN 1 Kota Bangun, East Kalimantan. This school was chosen due to its active involvement in the School Mobilizer Program and its early adoption of AI-based educational tools, aligning with Indonesia's Deep Learning Framework. Class X-1 was specifically selected following a preliminary classroom observation conducted on Thursday, May 8, 2025, which involved visits to multiple classes to assess available facilities and student engagement. Based on teacher input and direct observation, Class X-1 demonstrated consistent technological readiness and high levels of student participation, making it a suitable setting for the case study.

Classroom Observation

Classroom observation was conducted from 08:45 to 10:00 to identify behavioral indicators of joyful learning during a narrative writing activity supported by AI. Students utilized tools such as ChatGPT and Gemini to generate story ideas, image generators to visualize narratives, and Grammarly to refine grammar usage in line with narrative text conventions. Observable indicators of engagement included visible enjoyment, peer collaboration, proactive questioning, and confident storytelling, reflecting the core dimensions of joyful learning—enthusiasm, autonomy, and collaboration. The teacher played a facilitative role, guiding the responsible use of AI and maintaining an interactive classroom environment. These observational data provided real-time insights into students' affective and cognitive engagement during the session.

Observation Aspect		Observation Notes
Teacher explains lesson objectives	✓	Teacher explained students would write narrative texts with AI support and check grammar.
Students use ChatGPT/Gemini for story ideas	✓	Students used ChatGPT and Gemini to generate prompts and answer questions.
Students generate images with AI tools	✓	Students input story descriptions to AI and reacted excitedly to the generated images.
Students use Grammarly to check grammar	✓	Grammarly was used to review verb tense and grammar in the narrative texts.
Students discuss ideas with peers	✓	Students actively discussed story content and AI results with peers.
Students show enthusiasm toward AI outputs	✓	Many students smiled or laughed seeing how AI visualized their ideas.
Students actively ask questions or discuss	✓	Several students became more confident to ask questions after group discussion.
Students present their story and image	✓	Some students read their stories and showed their AI-generated images to the class.
Teacher gives feedback and guidance	✓	Teacher gave directions and reminded students not to over-rely on AI tools.
Learning environment is joyful and interactive	✓	Class atmosphere was active, relaxed, and highly engaging.

Figure 1. Classroom Observation Protocols during an AI-Enhanced English Classroom

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Open-Ended Questionnaires

Open-ended questionnaires served as a primary instrument to investigate factors shaping student engagement and motivation in an AI-enhanced English classroom. Administered to 30 students between 10:00 and 10:15, the 17-item questionnaire was organized into six thematic categories: general experience, engagement, motivation, personalization, social aspects, and future expectations. Responses were analyzed thematically to uncover key motivational drivers. Figure 2 illustrates a sample response to a question on how AI tools affected the student's motivation during the activity.

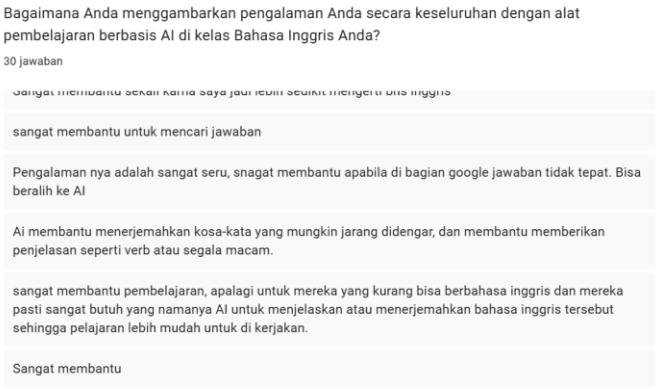

Figure 2. a sample of responses from the open-ended questionnaire

Semi-Structured Interviews

A 30-minute group interview was conducted from 11:30 to 12:00, involving five selected students. Selection was based on the depth and variation of their questionnaire responses to ensure a range of perspectives. These students differed in terms of the AI tools used, learning attitudes, and degrees of independence. Table 1 presents a summary of their characteristics.

Code	AI Tools Used	Primary Use In English Learning	Learning Attitude	Independence Level
TS	ChatGPT	Finding answers after trying independently	Cautious with AI, prefers teacher guidance	High
MF	ChatGPT, Gemini, Grammarly	Vocabulary, grammar, group discussion support	Engaged, enjoys collaborative learning	High
RS	ChatGPT, Grammarly	Task assistance, vocabulary help	Relies on AI for support, values discussion	Moderate to high
YH	Cici, Grammarly	Reading, writing, clarification	Reflective, uses AI as support only	High
NA	Gemini, Grammarly	Translation, explanation, rare vocabulary	Critical of AI, prefers visual teacher input	High

Table 1. Summary of Semi-Structured Interview Participants

Data Analysis Procedure

Data from interviews, classroom observations, and open-ended questionnaires were analyzed using Thematic Analysis, following the six-phase framework by Braun and Clarke (2006). The analysis involved the following steps: (1) transcribing all interviews and observation notes verbatim, (2) generating initial codes to identify key concepts, (3) organizing codes into potential themes, (4) refining themes through literature review and alignment with research questions, (5) defining and naming themes to ensure clarity and distinctiveness, and (6) producing the final report by selecting vivid, compelling extracts and linking them back to the research objectives and theoretical framework. To ensure the credibility and validity of the findings, a triangulation approach was applied by comparing data from the three instruments: interviews, observations, and questionnaires. The open-ended questionnaires responses were analyzed thematically to identify key factors influencing student engagement and motivation. The results were organized into thematic clusters, highlighting both drivers and barriers in the use of AI for language learning. Descriptive analysis was also employed to identify patterns and relationships in the data, providing a comprehensive view of the impact of AI integration in the English classroom.

RESULT AND DISCUSSION

AI and Students' Experience of Meaningful Learning

In this study, the integration of Artificial Intelligence (AI) in the English learning process was found to strongly support meaningful learning among students, particularly those who were not yet fluent in the language. Meaningful learning, as conceptualized by Ausubel (1963), occurs when students are able to relate new information to their existing knowledge in a way that is personally relevant and cognitively engaging. The findings revealed that AI played a facilitative role in helping students comprehend learning materials, access information independently, and expand their vocabulary. Through features that provide instant feedback and explanations, AI enabled students to better understand language structures and use English more confidently in both academic and everyday contexts. One student, RS, expressed how AI supported their learning process by offering immediate clarification and reducing language-related anxiety:

"AI is very helpful because I'm not very fluent in English. So, I just use AI, type this and that, and the answers and explanations come up right away. This really helps in learning English, even for everyday use." (RS)

This illustrates how AI contributes to meaningful learning by making content more accessible and relatable, which is essential for deep understanding. Students were not merely memorizing linguistic forms but were actively constructing meaning based on their interactions with AI. The findings also align with Okonkwo and Ade-Ibijola (2021), who emphasize that AI-powered educational tools can improve autonomous learning through customized, real-time feedback. This function supports learners with diverse language abilities, enabling them to engage with materials at their own pace and based on their individual learning needs—an important aspect of meaningful learning environments. However, the study also identified some challenges. A few students reported inaccuracies in the output generated by AI, particularly in relation to verb tense usage. In several instances, students noted that AI provided incorrect verb forms when asked to generate sentences in the past tense. As TS shared:

"For example, when I need a sentence with verb 1, AI sometimes gives a different verb or even directly gives verb 2. So, in the end, it can be wrong." (TS)

MF echoed this concern:

"AI often uses verb 1, while I need verb 2 because I asked AI to tell a past experience, which should use verb 2." (MF)

These limitations suggest that while AI enhances learner engagement and access to information, its support for meaningful learning may be constrained by issues of contextual sensitivity and linguistic accuracy. This is consistent with Annamalai et al. (2023), who found that the quality of AI-generated content is still dependent on the system's training data and its ability to interpret user intent accurately. Classroom observations in class X-1 at SMAN 1 Kota Bangun reinforced the notion that AI can enhance meaningful learning. Students demonstrated higher levels of engagement when AI tools were used to relate English language instruction to real-life scenarios. The technology provided explanations that were not only clear but also relevant to students' daily experiences, thereby fostering personal connection and deeper understanding. These findings resonate with Kim (2018), who highlighted the role of AI-powered chatbots in increasing student motivation and participation, especially in the development of receptive language skills such as reading and listening.

AI and Students' Experience of Mindful Learning

The use of AI in English language learning was also found to influence the extent to which students engage in mindful learning, particularly in sustaining focus during lessons. Mindful learning, as defined by Langer (2021), involves paying full attention to and being consciously aware of the learning content, which enhances both understanding and long-term retention. Several participants indicated that AI supported their ability to stay focused by allowing them to prepare independently before class. With AI tools, they could explore unfamiliar material in advance, leading to better preparedness and deeper concentration during actual lessons.

As YH described:

"For me, AI actually helps me focus better. Because AI helps me find answers or materials I don't know yet. So before the lesson starts, I already look up the material. Then, during the lesson, I can concentrate more because I'm prepared." (YH)

This aligns with findings from Chang & Sun (2024), who observed that AI-powered chatbots in language learning can enhance learner awareness and promote self-regulated learning—both of which are core aspects of mindful learning. The ability to access content at one's own pace and time allows learners to engage in more deliberate and focused preparation, fostering a more attentive mindset in class. However, not all student experiences reflected this benefit. Some participants reported that using AI during class actually disrupted their focus. Switching between applications and typing specific keywords to find relevant information was perceived as distracting and often led to a loss of concentration. NA shared:

"During class, AI actually makes me less focused. Because, like my friends said, sometimes we have to switch between apps to find material using AI, so it's a bit distracting." (NA)

This finding resonates with Nabung (2024), who emphasized that digital multitasking during learning can result in cognitive overload and reduced attention, especially when students are not provided with clear instructional guidance on how to use technological tools effectively.

Classroom observations reflected these varied experiences. For some students, AI promoted mindful learning by enabling better time management and independent study habits, leading to more focused participation during lessons. For others, the absence of structured guidance in using AI tools led to confusion, fragmented attention, and increased reliance on teachers to redirect the learning process.

AI and Students' Experience of Joyful Learning

This study also revealed that AI contributes significantly to joyful learning by creating a more engaging and interactive classroom atmosphere. Joyful learning refers to a learning environment that fosters positive emotional experiences, enthusiasm, and active student participation. The data revealed that AI increased students' motivation, involvement, and engagement, particularly through the incorporation of gamified elements and its support for collaborative discussions.

As MF described:

"For example, when playing something like AI Kahoot, it's really fun for me. But for regular learning, I think it's just normal." (MF)

Gamification—the use of game-like features in non-game contexts such as education—emerged as one of the most appreciated aspects of AI integration. YH shared:

"if AI is used for discussions or groups, or turned into a game, I prefer it." (YH)

These findings are consistent with the study by Safira (2024), which found that AI-based gamification enhances learning motivation and creates more enjoyable experiences, particularly among digital-native students who respond well to interactive technologies. In addition to gamification, AI also supported student engagement during group discussions and collaborative activities. When used as a tool for group work, AI contributed to a more dynamic and participatory learning process, helping students feel more connected to the material and their peers. NA added:

"I feel more comfortable and enjoy learning directly from teachers or friends. But if AI is used for learning while discussing or playing games, it can be really fun." (NA)

These insights are further supported by Huang (2024), who found that AI-assisted collaborative learning increases peer interaction, affective engagement, and a shared sense of community in foreign language classrooms. However, not all students perceived AI as enhancing their learning enjoyment. Some expressed a preference for conventional methods or direct interaction with teachers and classmates. As RS stated:

"I prefer regular learning which is more fun, because for me AI is just a second option." (RS)

Classroom observations reinforced these findings. When AI was used with gamified features, students were visibly more enthusiastic and more likely to participate in group-based learning activities. Their energy and engagement were particularly high during AI-supported games and quiz-based exercises, which helped increase their involvement in the learning process.

The Role of AI in Supporting or Hindering Deep Learning

The use of Artificial Intelligence (AI) in English language learning has a significant impact on students' deep learning experiences, which emphasize understanding, critical thinking,

and reflection. Several students noted that AI helps them grasp material better, especially when the teacher's explanation is insufficient. As TS stated:

"I can understand better when the teacher explains." (TS)

This suggests that the teacher's role remains vital for fostering deep comprehension. Pratiwi et al. (2025) similarly argue that teacher guidance is essential in facilitating critical and reflective learning, even in AI-supported classrooms. Some students use AI as a clarification tool when they encounter difficulties. YH shared:

"If there's a difficult topic and I still don't understand, I can keep asking AI." (YH)

Meanwhile, RS pointed out that AI serves more as a complementary resource:

"I prefer direct practice because AI mostly only helps explain." (RS)

These views align with Baidoo-Anu and Ansah (2023), who found that AI is effective as a support tool when used to clarify or review content already taught. NA also mentioned using AI-generated images and found them helpful:

"I once tried learning using images made by AI, and I think it helped." (NA)

This reflects AI's potential to support learning through visual variation. Saroh & Nurhamidah (2024) emphasized that AI-driven adaptive visuals can enhance cognitive engagement and diversify the learning experience. Classroom observations at SMAN 1 Kota Bangun reinforced these perspectives. Students frequently used AI tools like ChatGPT and Gemini to revisit material after class sessions. Importantly, they did not accept AI-generated responses uncritically. RS observed:

"Students recheck AI responses to make sure they match the material." (RS)

YH added:

"Students still think critically and evaluate the answers provided by AI." (YH)

These insights reflect the concept of AI literacy, as described by Suriano et al. (2024), which emphasizes students' ability to interpret and assess AI output consciously and critically in the learning process. Despite the benefits of AI, many students still preferred learning from their teachers. As NA noted:

"I prefer the teacher's explanation, especially since they often use images." (NA)

This highlights that AI has not replaced the instructional role of teachers. AI is most effective when used to complement, not replace, teacher-led instruction. Most students also reported a preference for independent problem-solving before turning to AI. TS stated:

"I have to be independent first, before using AI I try to find the answer myself." (TS)

YH confirmed this approach:

"AI is just a second option for me." (YH)

MF echoed a similar sentiment:

"If I really can't get it at all, only then I go to AI." (MF)

This pattern indicates a responsible and reflective use of AI. Hidayat and Haryati (2025) support this, suggesting that deep learning is more effective when students first attempt to solve problems independently before relying on AI support. However, some students also expressed concern over rising dependency on AI. NA remarked:

"I often see people depending on AI. That's not always good." (NA)

Classroom observations showed varied patterns in how students used AI. Some treated it as a last resort after trying to understand the material themselves, while others relied on it too early without attempting initial comprehension. Nevertheless, those who used AI for self-study often still turned to their teachers for clarification when confused. This indicates that AI has not replaced the teacher's role but rather serves as a preliminary source of information. Kong et al. (2020) warn that without proper guidance and reflection, relying on AI may actually hinder critical thinking and deeper learning engagement.

Factors Influencing Student Engagement and Motivation in AI-Based Learning

To investigate the influence of artificial intelligence (AI) on student engagement and motivation in English learning, an open-ended questionnaire was administered to 30 tenth-grade students from Class X-1 at SMAN 1 Kota Bangun. These students had prior exposure to AI-supported learning, allowing them to provide informed reflections. The study aimed to examine not only whether AI tools enhance enthusiasm and participation but also to uncover the underlying factors driving these effects. The responses revealed that student engagement is shaped by multiple factors, including the perceived usefulness of AI, ease of use, and emotional responses such as enjoyment and increased confidence. Many students felt that AI made learning more interactive and focused, offering a more personalized experience. Nonetheless, concerns were raised regarding issues like occasional inaccuracies in AI-generated responses and reliance on stable internet access. To summarize these findings, a thematic table was developed to present the key themes and initial codes, offering a clearer understanding of what supports or obstructs students' motivation when learning with AI.

Theme	Initial Code
General Experience with AI-Based Learning	Quite helpful because AI and ChatGPT help improve focus. Very helpful when feeling confused. Helps translate difficult vocabulary. Easily accessible via mobile phone. A fun experience, especially useful when Google doesn't help. AI simplifies making presentations and expands knowledge.
Engagement and Interaction	AI makes learning more interactive and enjoyable. Makes learning more fun and less boring. AI boosts confidence during discussions. Supports both independent learning and group work. Influences communication with teachers and peers.
Motivational Factors	Helps increase self-confidence.

	Makes the learning process more interesting. Feel more motivated when learning with AI. Provides suggestions that are immediately applicable. Can study anytime without waiting for the teacher.
Personalization and Learning Preferences	AI adjusts material based on the student's ability level. Offers various explanations suited to different learning styles. Students enjoy the image-generation feature of AI. Concept maps and discussion tools are helpful, though still imperfect.
Perceived Benefits and Limitations	Helps students stay focused and find answers. Speeds up assignments and supports practical learning. Weakness: requires mobile data. AI answers are sometimes inaccurate or off-topic. Vocabulary provided by AI is sometimes unhelpful and poorly structured.

Table 2. Initial Codes of Factors Influencing Student Engagement and Motivation in AI-Based Learning

Findings from this study indicate that students generally had positive experiences with AI tools such as ChatGPT in learning English. Many students found AI helpful for translating vocabulary, summarizing complex materials, and assisting with assignments. One student commented, *"AI really helps summarize things I don't understand, so it feels more comfortable."* Classroom observations supported this, as students were often seen using AI during vocabulary and writing tasks to reinforce material previously explained by the teacher. This aligns with Yaseen and Alnakeeb (2023), who highlight the role of AI in supporting individualized and on-demand learning. AI also contributed to increased engagement during lessons. Students noted that learning became more enjoyable and less monotonous when AI was incorporated into discussions or group tasks. One student shared, *"AI is more fun if used during discussions."* In Class X-1, for example, students were observed using AI tools to verify answers and expand peer discussions, which helped create a more dynamic and collaborative classroom environment. Auna and Hamzah (2024), emphasize that such AI-facilitated collaboration can enhance student motivation and participation.

In terms of motivation, many students appreciated how AI provided quick and accessible responses. They felt more independent and confident because they could ask questions and receive answers without waiting for the teacher. Some noted that this ease of access made learning more enjoyable. However, not all experiences were positive. One student expressed frustration, saying, *"I once searched for questions and answers but couldn't find them—it turned out I needed a premium feature, so I lost interest."* Another shared, *"Sometimes the AI's answers don't match what I'm looking for, so it just makes things more confusing."* These

concerns align with Nguyen et al. (2024), who caution that limitations in AI functionality and access can reduce student engagement and hinder learning when not properly managed.

Students also recognized the benefits of AI for personalized learning. They appreciated how AI could adjust its explanations based on individual skill levels and preferred learning styles. Features such as AI-generated images and concept maps were particularly appealing to visual learners. One student shared, *"I once tried learning using images made by AI, and I think it helped."* However, some students felt that AI interactions were impersonal and lacked human nuance. As one student described, *"When using AI, it feels really stiff—like a robot."* This underscores the point made by Perrotta, Selwyn, and Ewin (2022), who argue that while AI can personalize content delivery, it still requires human mediation to provide emotional and communicative depth, especially in language learning contexts. Despite these benefits, students identified several challenges. Reliable internet access was a recurring issue, and some students struggled when AI responses were inaccurate or awkwardly phrased. These problems were evident during classroom observations, where some learners became confused or disengaged after receiving unclear or irrelevant answers. Ng et al. (2024), suggest that without sufficient digital literacy, students may find it difficult to critically evaluate AI-generated content, which can negatively affect comprehension and engagement.

Finally, students expressed several expectations for the future development of AI in education. They hoped for offline accessibility and more accurate, context-specific answers. While AI was appreciated for its convenience, many students emphasized that it should not replace the teacher's role. One student commented, *"It's more practical, but I prefer listening to direct explanations from the teacher."* This reflects the continuing value of teacher-student interaction. Yaseen and Alnakeeb (2023) reinforce this idea, proposing that the most effective learning environments are those that integrate AI as a support tool alongside strong pedagogical guidance.

CONCLUSION

This study shows that Artificial Intelligence (AI) can support meaningful, mindful, and joyful learning in English classroom. AI tools help students understand lessons better by connecting new information with what they already know, allowing them to prepare before class and stay focused, and making learning more enjoyable through interactive and game-based activities. These benefits show that AI can support deep learning by helping students think more critically and stay motivated. However, the study also found some challenges, such as inaccurate answers from AI, difficulty in focusing when switching between apps, and the risk of students becoming too dependent on AI. These issues highlight that AI cannot replace teachers, who are still important for guiding students and making sure learning stays on track.

In summary, AI can be a useful learning support tool when used wisely and with clear guidance from teachers. It offers many opportunities to personalize learning and make the classroom more engaging. But to get the best results, schools and teachers must balance the use of technology with human interaction. This study gives useful insights for educators and policymakers to design AI-supported learning that not only builds language skills but also supports emotional well-being and student independence. AI should be seen as a complement to teaching, not a replacement, helping students learn more deeply and enjoyably in today's digital era.

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