

CHAT GPT - MEDIATED ENGLISH GRAMMAR LEARNING: EVIDENCE FROM STUDENTS' PERCEPTIONS

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Abstract: The use of artificial intelligence (AI) in language learning opened up new opportunities to support grammar learning both inside and outside the classroom. Although previous studies explored AI tools in English as a foreign language (EFL) learning, concrete evidence focusing on students' perceptions of ChatGPT specifically for grammar learning was still limited. To address this gap, this study aimed to investigate EFL students' perceptions of the use of ChatGPT as an AI tool for grammar learning. A quantitative descriptive research design was used. The population consisted of students majoring in English Education at a state university in Indonesia, with a sample of 100 students selected through purposive sampling. Data were collected using a questionnaire consisting of 23 items measured on a five point Likert scale, covering perceptions of usefulness, accessibility of feedback, learning motivation, affective responses, and perceptions of ChatGPT's limitations in grammar learning. The data were analyzed using descriptive statistics, including frequency, percentage, mean, and standard deviation. The findings showed that students generally had a positive perception of the use of ChatGPT in grammar learning. The highest mean score was found in instant feedback, indicating strong agreement that ChatGPT provided quick and useful grammar corrections. Students also agreed that ChatGPT supported independent learning, increased motivation, enhanced enjoyment, and offered flexibility.

Keywords: *ChatGPT, EFL, grammar learning, students' perceptions*



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Abstract: Penggunaan kecerdasan buatan (artificial intelligence/AI) dalam pembelajaran bahasa telah membuka peluang baru untuk mendukung pembelajaran tata bahasa, baik di dalam maupun di luar kelas. Meskipun penelitian sebelumnya telah mengkaji penggunaan alat berbasis AI dalam pembelajaran bahasa Inggris sebagai bahasa asing (EFL), bukti empiris yang secara khusus berfokus pada persepsi mahasiswa terhadap penggunaan ChatGPT dalam pembelajaran tata bahasa masih terbatas. Untuk mengisi celah penelitian tersebut, penelitian ini bertujuan untuk menginvestigasi persepsi mahasiswa EFL terhadap penggunaan ChatGPT sebagai alat berbasis AI dalam pembelajaran tata bahasa. Penelitian ini menggunakan desain penelitian deskriptif kuantitatif. Populasi penelitian terdiri atas mahasiswa Program Studi Pendidikan Bahasa Inggris di sebuah perguruan tinggi negeri di Indonesia, dengan sampel sebanyak 100 mahasiswa yang dipilih melalui teknik purposive sampling. Data dikumpulkan menggunakan kuesioner yang terdiri atas 23 pernyataan dengan skala Likert lima poin, yang mencakup persepsi terhadap kegunaan, aksesibilitas umpan balik, motivasi belajar, respons afektif, serta persepsi terhadap keterbatasan ChatGPT dalam pembelajaran tata bahasa. Data dianalisis menggunakan statistik deskriptif, meliputi frekuensi, persentase, nilai rata-rata, dan simpangan baku. Hasil penelitian menunjukkan bahwa mahasiswa secara umum memiliki persepsi positif terhadap penggunaan ChatGPT dalam pembelajaran tata bahasa. Nilai rata-rata tertinggi ditemukan pada aspek umpan balik instan, yang menunjukkan tingkat persetujuan yang tinggi bahwa ChatGPT memberikan koreksi tata bahasa yang cepat dan bermanfaat. Mahasiswa juga menyatakan bahwa ChatGPT mendukung pembelajaran mandiri, meningkatkan motivasi, menumbuhkan rasa senang dalam belajar, serta memberikan fleksibilitas dalam pembelajaran..

Keywords: ChatGPT, EFL, pembelajaran tata bahasa, persepsi mahasiswa

INTRODUCTION

In the 21st century, the integration of digital technology in education has become an essential component of teaching and learning practices, including in the field of English as a Foreign Language (EFL). Rapid technological development has reshaped how students access information, interact with learning materials, and receive feedback. One of the most recent advancements in educational technology is the use of Artificial Intelligence (AI)-based tools, particularly ChatGPT, which has gained significant attention in language learning contexts. ChatGPT enables learners to ask questions about grammatical structures, receive immediate corrections, generate example sentences, and obtain instant feedback, making it a potentially valuable tool for supporting EFL grammar learning.

Although previous studies have explored the use of AI-assisted tools in EFL learning, empirical research focusing specifically on students' perceptions of ChatGPT as a support tool for grammar learning remains limited. As digital tools increasingly influence students' learning experiences, examining students' perceptions of ChatGPT in grammar learning has therefore become highly relevant.

Grammar is widely recognized as one of the most challenging components of English learning for EFL students, particularly in contexts where English is learned as a foreign language and exposure to authentic language use is limited. The complexity of grammatical rules, structural differences between English and learners' first languages, and inconsistencies in usage often hinder students' understanding and application of grammar. Consequently, many EFL learners experience difficulties in identifying grammatical errors, applying rules accurately in context, and retaining grammatical knowledge over time. Traditional grammar instruction, which commonly relies on textbooks, repetitive exercises, and teacher-centered explanations, is often perceived by students as monotonous and insufficiently engaging. These instructional limitations may reduce students' motivation, confidence, and autonomy in grammar learning.

Another challenge in grammar instruction is the limited availability of timely and personalized feedback. In many EFL classrooms, teachers face constraints such as large class sizes and limited instructional time, which reduce opportunities to provide immediate and individualized responses to students' grammatical errors. Consequently, students may continue practicing incorrect language patterns without adequate correction. In this context, AI-based tools such as ChatGPT offer an alternative form of learning support by providing real-time feedback, personalized explanations, and flexible access to grammar assistance.

English grammar instruction has long been recognized as a fundamental yet challenging component of English as a Foreign Language (EFL) education. For non-native English learners, grammar learning involves more than memorizing linguistic rules; it requires the ability to apply grammatical knowledge accurately, flexibly, and meaningfully across different communicative contexts. Structural differences between learners' first language systems and English often lead to persistent grammatical difficulties, including errors in tense usage, subject–verb agreement, word order, and sentence complexity. These challenges are particularly evident in EFL contexts, where learners have limited exposure to authentic English input and restricted opportunities to use English beyond the classroom environment.

The pedagogical challenges of teaching English grammar to non-native learners are further compounded by contextual constraints in formal educational settings. Large class sizes, limited instructional time, and curriculum demands often restrict teachers' ability to provide individualized feedback and sustained grammar practice. As a result, grammar instruction frequently relies on rule explanation and textbook-based exercises, which may not sufficiently address learners' individual needs or support long-term grammatical development. From an investigative perspective, these conditions complicate efforts to identify effective instructional approaches

that balance accuracy, learner engagement, and communicative relevance. Consequently, exploring alternative and supplementary approaches to grammar learning has become an important area of inquiry in EFL research.

In response to these long-standing challenges, technological advancements have increasingly influenced English language teaching practices. Digital learning platforms and Artificial Intelligence (AI) tools have been introduced to support grammar instruction by offering immediate feedback, flexible access to learning materials, and opportunities for autonomous practice. Earlier studies on AI-based grammar tools suggest that such technologies can assist learners in identifying grammatical errors and receiving timely corrections, while simultaneously reducing teachers' instructional workload (Park, 2019). These tools have been particularly valued in EFL contexts, where learners often require repeated exposure to grammatical forms and ongoing corrective feedback that may be difficult to provide consistently through traditional classroom instruction alone.

With the rapid development of generative AI and Large Language Models (LLMs), the role of AI in grammar learning has expanded considerably. Unlike earlier rule-based grammar checkers, generative AI systems are capable of producing extended explanations, generating examples, and engaging learners in interactive dialogue. Among these systems, ChatGPT has attracted substantial attention due to its ability to generate human-like responses and adapt explanations to learners' prompts. This interactive capacity has positioned ChatGPT as a potentially powerful supplementary tool for grammar learning, particularly in EFL settings where learners seek accessible and personalized learning support outside classroom hours.

Recent empirical studies have demonstrated the potential effectiveness of ChatGPT in supporting grammar learning outcomes. Behforouz & Ghaithi (2024), for example, reported that EFL students who used ChatGPT as part of grammar instruction achieved improved grammatical performance compared to those in traditional and fully online instructional settings. Their findings suggest that ChatGPT can enhance learners' grammatical development when integrated into instructional practices rather than used in isolation. Similarly, Kucuk (2024) found that EFL students who experienced ChatGPT-integrated instruction demonstrated significantly greater improvements in grammar performance than those relying solely on teacher-centered, textbook-based approaches. These studies provide growing evidence that ChatGPT can contribute positively to grammar learning when aligned with pedagogical goals.

Beyond general grammar instruction, several studies have focused on ChatGPT's role in grammatical error correction and feedback provision. Phieanchang (2024) highlighted ChatGPT's effectiveness in identifying grammatical errors, offering real-time explanations, and supporting self-

paced learning through Natural Language Processing (NLP) features. Such capabilities allow learners to engage in repeated practice and reflection, which are essential for internalizing grammatical forms. Comparative research has further examined ChatGPT alongside other AI-based grammar tools. Schmidt-Fajlik (2023), in a study involving Japanese EFL learners, reported that ChatGPT provided more flexible and context-sensitive explanations than Grammarly and ProWritingAid, although accuracy varied depending on the grammatical structure. Similarly, Fang et al. (2024) evaluated ChatGPT as a grammatical error correction system and found that while the system produced fluent and coherent corrections, it occasionally demonstrated inconsistencies in linguistic precision.

Despite these technological advantages, scholars caution against uncritical reliance on generative AI in grammar instruction. Cope & Kalantzis (2024) argued that LLMs, including ChatGPT, function based on probabilistic pattern recognition rather than explicit grammatical theory, referring to such systems as “anti-grammars.” While ChatGPT is capable of generating grammatically plausible language, its responses may lack theoretical grounding or fail to account for deeper semantic and pragmatic considerations. These limitations highlight the importance of teacher mediation and instructional guidance, reinforcing the view that ChatGPT should serve as a supportive learning resource rather than a replacement for human educators.

Although existing research provides strong evidence regarding the effectiveness of ChatGPT in improving grammatical accuracy and learning outcomes, much of the literature has concentrated on measurable performance indicators such as test scores and error reduction. Comparatively less attention has been given to learners’ perceptions of using ChatGPT for grammar learning. From an educational perspective, students’ perceptions are a critical determinant of the success of technology integration, as factors such as perceived usefulness, ease of use, trust, and learning experience influence acceptance and sustained engagement. Recent studies suggest that while learners often recognize the benefits of AI tools, they also express concerns related to accuracy, overdependence, reduced critical thinking, and limited human interaction (Abd Rahim et al., 2023; Mahapatra, 2024; Ravšelj et al., 2025).

Survey-based research has begun to address these perceptual dimensions of AI-assisted language learning. (Mudhsh et al., 2025) found that university EFL students generally held positive attitudes toward AI tools for grammar and vocabulary learning, reporting increased confidence and learning efficiency. However, the study also emphasized that students’ positive perceptions were influenced by how AI tools were positioned within the learning process. Similarly, Mun (2024) reported that EFL learners valued ChatGPT’s immediate feedback and clarity of explanations in writing tasks,

while also expressing caution regarding the reliability of AI-generated corrections. These findings indicate that students' perceptions of ChatGPT are complex and shaped by both perceived benefits and perceived limitations.

In the Indonesian context, research on students' perceptions of ChatGPT for grammar learning remains limited. Azwar & Jayanti (2025) examined Indonesian EFL students' acceptance of ChatGPT as a supplementary grammar learning resource and reported generally favorable attitudes, particularly regarding accessibility and perceived usefulness. Nevertheless, the authors emphasized the importance of teacher supervision and pedagogical guidance to prevent over-reliance on AI tools. The limited number of studies conducted in Southeast Asian contexts highlights the need for further empirical investigation that accounts for local educational conditions, learner characteristics, and instructional practices. Taken together, the existing literature reveals several important gaps. First, while numerous studies have examined the effectiveness of ChatGPT in improving grammatical accuracy, fewer studies have focused specifically on learners' perceptions and experiences of using ChatGPT for grammar learning. Second, empirical evidence from Indonesian EFL contexts remains scarce, limiting the generalisability of findings from other regions. Third, pedagogical dimensions such as learner autonomy, motivation, trust in AI-generated feedback, and perceived limitations of ChatGPT have not been comprehensively examined within a single, grammar-focused study. Addressing these gaps is essential for developing a balanced understanding of how ChatGPT can be integrated responsibly into EFL grammar instruction.

Therefore, this study aims to investigate Indonesian EFL students' perceptions of using ChatGPT as an AI-assisted tool for grammar learning. Focusing on perceived usefulness, feedback quality, accessibility, learning support, and limitations, this quantitative descriptive study seeks to provide empirical insights into how learners evaluate ChatGPT as a supportive instructional resource rather than a replacement for teachers. By foregrounding students' perspectives, this study contributes to a more nuanced understanding of AI integration in EFL grammar instruction and offers practical implications for educators seeking to adopt AI-based tools in non-native English learning contexts.

METHOD

This study employed a quantitative descriptive research design to investigate students' perceptions of using ChatGPT as an AI-assisted tool for grammar learning. A quantitative approach was considered appropriate because the data were obtained from structured questionnaire responses

and analyzed using descriptive statistical techniques to summarize students' perceptions.

The participants of this study were undergraduate students from the English Education Study Program at a state university in Indonesia. The sampling technique used was purposive sampling, as the participants were selected based on specific criteria relevant to the research objectives. The criteria included students who had taken or were currently taking grammar courses and had experience using ChatGPT as a learning aid. From the population, a total of 100 students were selected as the research sample, following the sampling recommendation applied in a previous study by (Shareef, 2024).

Data were collected using a questionnaire consisting of 23 items designed to measure students' perceptions of ChatGPT in grammar learning. The questionnaire was divided into two sections: (1) students' perceptions of the usefulness of ChatGPT as an AI tool for improving English grammar, and (2) students' affective responses toward the use of ChatGPT in grammar learning. All items were measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The questionnaire was distributed to the participants after they had completed grammar learning activities assisted by ChatGPT.

The collected data were analyzed using descriptive statistical methods, including frequency, percentage, mean, and standard deviation, to describe the overall trends of students' perceptions. The interpretation of the mean scores followed these criteria: 1.00-1.80 (Strongly Disagree), 1.81-2.60 (Disagree), 2.61-3.40 (Neutral), 3.41-4.20 (Agree), and 4.21-5.00 (Strongly Agree). This analysis was conducted to provide a clear overview of students' perceptions toward the use of ChatGPT in grammar learning.

The data analysis procedure began with checking the completeness of the questionnaire responses to ensure that all items were properly answered. Incomplete or invalid responses were excluded from the analysis. Next, the responses were coded and entered into the Statistical Package for the Social Sciences (SPSS) version 30.0 for analysis. Each Likert scale response was assigned a numerical value ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

After data entry, descriptive statistical analysis was conducted to calculate frequencies, percentages, mean scores, and standard deviations for each questionnaire item. The mean scores were then interpreted based on the predetermined criteria to determine the level of students' agreement with each statement. Finally, the results were organized into tables to present an

overall description of students' perceptions of using ChatGPT in grammar learning.

RESULTS

The quantitative data were collected from survey questionnaires, and the analysis produced the results explained in the following sections.

EFL Students' Perceptions towards AI Tools (ChatGPT) Platforms for Improving English Grammar Learning

| Question | N | Mean | Std. Deviation |
|---|-----|------|----------------|
| I think ChatGPT can help me improve my English grammar. | 100 | 4.07 | 0.714 |
| ChatGPT gives clear information about English grammar. | 100 | 4.07 | 0.856 |
| ChatGPT shows simple examples that help me understand grammar better. | 100 | 4.02 | 0.887 |
| I can practice grammar by chatting with ChatGPT. | 100 | 3.88 | 0.856 |
| ChatGPT gives grammar exercises that match my level. | 100 | 3.94 | 0.827 |
| ChatGPT helps me remember grammar rules by repeating them sometimes. | 100 | 3.89 | 0.790 |
| ChatGPT gives exercises that fit my learning style and speed. | 100 | 3.73 | 0.863 |
| ChatGPT makes grammar learning easier for me. | 100 | 4.08 | 0.734 |
| ChatGPT gives fast feedback to help me fix my grammar mistakes. | 100 | 4.29 | 0.729 |
| ChatGPT's explanations about my grammar errors are useful. | 100 | 4.15 | 0.757 |

Table 1. EFL Students' Perceptions towards AI Tools (ChatGPT) Platforms for Improving English Grammar

Table 1 display the descriptive statistics of EFL students' perceptions of using ChatGPT for grammar learning. Overall, the results showed that students held positive perceptions toward the use of ChatGPT, as indicated by mean scores ranging from 3.73 to 4.29.

The highest mean score was found in the item "ChatGPT gives fast feedback to help me fix my grammar mistakes" (M = 4.29, SD = 0.729), indicating that students strongly agreed that ChatGPT provided immediate

and helpful feedback for grammar correction. Similarly, high mean scores were reported for items related to the usefulness of ChatGPT in grammar learning, such as “ChatGPT’s explanations about my grammar errors are useful” (M = 4.15, SD = 0.757) and “ChatGPT makes grammar learning easier for me” (M = 4.08, SD = 0.734).

Other items also received positive responses, including students’ agreement that ChatGPT helped improve their English grammar (M = 4.07, SD = 0.714) and provided clear grammatical explanations (M = 4.07, SD = 0.856). The lowest mean score was found in the item “ChatGPT gives exercises that fit my learning style and speed” (M = 3.73, SD = 0.863), although the score still fell within the “agree” category, indicating generally favorable perceptions.

EFL Students' Perceived Feelings about the AI Tools (ChatGPT) Platforms for Learning English Grammar

| Question | N | Mean | Std. Deviation |
|--|----------|-------------|-----------------------|
| ChatGPT makes grammar learning more fun with games or challenges. | 100 | 3.63 | 1.022 |
| I am happy because ChatGPT can answer my grammar questions. | 100 | 4.08 | 0.813 |
| Sometimes ChatGPT gives wrong answers about grammar. | 100 | 3.93 | 0.868 |
| Sometimes the sentences from ChatGPT sound unnatural. | 100 | 4.04 | 0.816 |
| I like ChatGPT because I can use it anytime to study grammar. | 100 | 4.02 | 0.791 |
| ChatGPT makes me more motivated to learn grammar. | 100 | 3.90 | 0.882 |
| I don't mind that ChatGPT is not like a real teacher. | 100 | 3.81 | 0.837 |
| It's okay that ChatGPT cannot understand my feelings. | 100 | 3.98 | 0.943 |
| I feel a little annoyed when ChatGPT doesn't understand what I mean. | 100 | 3.93 | 0.924 |
| I enjoy learning grammar with ChatGPT. | 100 | 3.95 | 0.770 |

| | | | |
|---|-----|------|-------|
| ChatGPT makes me more curious and interested in learning grammar. | 100 | 3.93 | 0.844 |
| I like learning grammar alone with ChatGPT without help from others. | 100 | 3.91 | 0.911 |
| I am happy with the group or teamwork activities that ChatGPT suggests. | 100 | 3.96 | 0.864 |

Table 2. EFL Students' Perceived Feelings about the AI Tools (ChatGPT) Platforms for Learning English Grammar

Table 2 displays the descriptive statistics of EFL students' perceived feelings toward the use of ChatGPT for learning English grammar. Overall, the results indicated that students showed generally positive affective responses, with mean scores ranging from 3.63 to 4.08. The highest mean score was obtained for the item "I am happy because ChatGPT can answer my grammar questions" ($M = 4.08$, $SD = 0.813$), indicating that students felt satisfied when ChatGPT provided answers to their grammar-related questions. Similarly, students reported positive feelings toward the flexibility of ChatGPT, as shown by the item "I like ChatGPT because I can use it anytime to study grammar" ($M = 4.02$, $SD = 0.791$).

Students also expressed enjoyment and interest in learning grammar with ChatGPT. This was reflected in the items "I enjoy learning grammar with ChatGPT" ($M = 3.95$, $SD = 0.770$) and "ChatGPT makes me more curious and interested in learning grammar" ($M = 3.93$, $SD = 0.844$). These results suggested that ChatGPT contributed positively to students' emotional engagement in grammar learning.

However, the findings also revealed some negative perceptions. Students agreed that ChatGPT sometimes gave incorrect grammar answers ($M = 3.93$, $SD = 0.868$) and produced sentences that sounded unnatural ($M = 4.04$, $SD = 0.816$). In addition, students acknowledged limitations related to emotional understanding, as indicated by the item "It's okay that ChatGPT cannot understand my feelings" ($M = 3.98$, $SD = 0.943$). The lowest mean score was found in the item "ChatGPT makes grammar learning more fun with games or challenges" ($M = 3.63$, $SD = 1.022$). Although this item received the lowest score, it still fell within the agree category, indicating a moderately positive perception.

DISCUSSION

This study investigated EFL students' perceptions of using ChatGPT as an AI-based tool for grammar learning through a quantitative descriptive approach. The discussion interprets the findings in relation to the research objectives, previous studies, and theoretical perspectives on technology assisted language learning. Overall, the findings demonstrate that students

hold predominantly positive perceptions of ChatGPT as a supportive tool for learning grammar, while also showing critical awareness of its limitations.

The most prominent finding of this study is the generally high level of agreement across almost all questionnaire items. Mean scores ranged from 3.63 to 4.29, indicating that students tended to agree that ChatGPT supports their grammar learning in various ways. This result directly addresses the research objective of exploring students' perceptions of ChatGPT in grammar learning and confirms that AI tools are increasingly accepted as part of EFL learning practices. These findings can also be interpreted through the Technology Acceptance Model, which emphasizes perceived usefulness and usability as key factors influencing learners' acceptance of educational technology. Students perceived ChatGPT as helpful in explaining grammar rules, providing examples, supporting practice, and facilitating independent learning. These findings suggest that ChatGPT functions as a form of cognitive and instructional support rather than merely a technological novelty.

From the perspective of feedback and noticing theories in second language acquisition, this finding highlights the pedagogical value of AI-mediated feedback. One of the strongest findings relates to ChatGPT's ability to provide immediate feedback, which received the highest mean score among all items. Students strongly acknowledge that fast feedback helped them identify and correct grammatical errors. This finding is consistent with established theories of language learning, which emphasize the importance of timely feedback in preventing error fossilization and supporting noticing in grammar acquisition (Field, 2018). The result also aligns with (Behforouz & Ghaithi, 2024), who found that ChatGPT effectively complements classroom grammar instruction by offering instant corrective feedback. In traditional EFL classrooms, teachers often face time constraints and large class sizes, limiting their ability to provide individualized feedback. ChatGPT appears to address this gap by offering immediate responses that support students' learning processes beyond classroom boundaries.

Accessibility and flexibility also emerged as key strengths of ChatGPT. Students agreed that they could use ChatGPT anytime and anywhere to study grammar, which supports autonomous and self-directed learning. This finding is in line with Saunders et al (2023), who argue that flexible access to learning resources enhances learner autonomy and responsibility. The ability to review grammar materials, ask questions, and receive explanations outside formal instructional settings allows students to take greater control of their learning. Similarly, Kucuk (2024) reported that students using ChatGPT as an integrated learning tool demonstrated higher engagement and improvement compared to those relying solely on traditional textbook-based instruction. Therefore, the present findings

reinforce the idea that ChatGPT supports out-of-class learning and extends grammar practice opportunities for EFL learners.

Another important aspect highlighted by the results is students' perception of ChatGPT as a tool that improves understanding and confidence in grammar learning. Students agreed that ChatGPT provides clear explanations and simple examples, which help them understand grammar concepts more easily. This supports the view that alternative explanations offered by AI tools may complement textbook and teacher explanations, particularly for students who struggle with traditional instructional approaches. Creswell & Creswell (2018) emphasize that clarity and repeated exposure to concepts are essential for effective learning, and ChatGPT appears to facilitate this process by allowing students to ask follow-up questions without fear of judgment. Increased confidence, as reflected in the findings, is an important affective factor that can positively influence learners' motivation and persistence in learning grammar.

From an opposing perspective, these findings challenge the assumption that AI tools can fully replace human-mediated grammar instruction, particularly in terms of accuracy, contextual interpretation, and affective support. Despite the overall positive perceptions, the findings also reveal students' awareness of ChatGPT's limitations. Several items related to accuracy, consistency, contextual understanding, and emotional or human like interaction received comparatively lower, yet still positive, agreement scores. Rather than indicating rejection, these results suggest cautious acceptance. Students acknowledge that ChatGPT may sometimes produce inaccurate or unnatural sentences and may struggle to fully understand complex contexts. This awareness is consistent with Cope & Kalantzis (2024), who argue that generative AI operates based on statistical patterns rather than deep semantic understanding. Similarly, Mudsh et al. (2025) found that while students held positive attitudes toward AI tools, they did not perceive them as flawless or fully reliable substitutes for human teachers.

Importantly, the presence of items explicitly addressing limitations, such as accuracy and lack of emotional understanding, explains why not all mean scores reached the "strongly agree" category. Lower agreement scores do not reflect negative perceptions but rather indicate critical evaluation by students. This finding is pedagogically significant because it demonstrates that students are not blindly dependent on AI tools. Instead, they recognize ChatGPT's role as a supportive resource while maintaining an understanding of its boundaries. This aligns with previous research emphasizing the importance of responsible and guided use of AI in education (Behforouz & Ghaithi, 2024; Kucuk, 2024).

Another notable finding is that students did not perceive ChatGPT as a replacement for teachers. Items related to complementing teacher

explanations received positive agreement, suggesting that students view ChatGPT as an additional learning aid rather than a substitute for human instruction. This finding reinforces concerns raised in the literature about overreliance on AI tools. While AI can provide efficiency and accessibility, human teachers remain essential for providing emotional support, pedagogical judgment, and contextualized feedback. The results support a blended approach in which ChatGPT is integrated into grammar learning alongside teacher guidance, maximizing benefits while minimizing risks.

From a theoretical perspective, the findings support technology acceptance and learner autonomy frameworks, which suggest that perceived usefulness, ease of use, and accessibility strongly influence students' acceptance of educational technologies (Sekaran & Bougie, 2016). Students' positive perceptions of ChatGPT's usability and practicality indicate high acceptance, while their awareness of limitations reflects critical engagement rather than passive consumption. This balance is essential for sustainable integration of AI tools in EFL classrooms.

Several limitations of this study should be acknowledged. First, the study relied on self-reported data from questionnaires, which reflect perceptions rather than direct measures of grammar improvement. Second, the sample was limited to students from one university, which may affect the generalizability of the findings to other contexts. Third, the study focused only on ChatGPT and did not compare it with other AI tools. However, these limitations do not undermine the value of the findings rather; they highlight opportunities for future research.

Future studies may explore longitudinal designs to examine how sustained use of ChatGPT influences grammar development over time. Comparative studies involving multiple AI tools could also provide deeper insights into relative strengths and weaknesses. Additionally, qualitative approaches such as interviews could further explore students' experiences and strategies when using ChatGPT for grammar learning.

In conclusion, this study demonstrates that EFL students generally perceive ChatGPT as a beneficial and supportive tool for grammar learning. Students value its immediate feedback, accessibility, and ability to support independent learning, while remaining aware of its limitations related to accuracy and human-like interaction. These findings contribute to the growing literature on AI in language education and suggest that ChatGPT is most effective when used as a complementary tool under appropriate pedagogical guidance.

CONCLUSION

This study aimed to explore EFL students' perceptions of using ChatGPT as an AI-assisted tool for learning English grammar. The main focus of this study was to understand how students perceive the usefulness, feedback, accessibility, and limitations of ChatGPT in supporting grammar learning.

The findings showed that students generally had positive perceptions of using ChatGPT for grammar learning. Most students agreed that ChatGPT helped them understand grammar rules, provided clear examples, and gave fast feedback on their grammatical errors. Students also perceived ChatGPT as helpful for practicing grammar independently outside the classroom. These results indicate that ChatGPT was viewed as a supportive learning tool that made grammar learning easier and more flexible. However, the findings also revealed that students were not fully confident in ChatGPT's accuracy, especially when dealing with more complex grammar or contextual use. Students tended to view ChatGPT as a learning aid rather than a replacement for teachers. This suggests that while ChatGPT is useful, students still believe that teacher guidance is important in grammar learning.

This study contributes theoretically by providing insight into how EFL students perceive the use of AI tools in grammar learning. Empirically, the findings add evidence that students respond positively to ChatGPT when it is used as a complementary tool. Practically, the results suggest that teachers can use ChatGPT to support grammar instruction, particularly for practice and feedback, while continuing to play an active role in guiding students' learning. Several limitations of this study should be noted. First, the data were collected using a questionnaire, which only measured students' perceptions and did not examine actual improvement in grammar ability. Second, the participants were limited to students from one university, so the findings may not represent all EFL learners. In addition, this study focused only on ChatGPT and did not compare it with other AI-based learning tools.

Future studies may involve different research methods, such as interviews or classroom observations, to gain deeper understanding of students' experiences. Further research could also examine the long-term effects of using ChatGPT on students' grammar learning or compare ChatGPT with other AI tools in EFL contexts.

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