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ChatGPT in English Learning for Non-English Majors: A Systematic Literature Review

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*Amanda Nurul Hidayah, Yohanes Gatot Sutapa Yuliana, Endang Susilawati, Ikhsanudin[abcd]

[1234]Universitas Tanjungpura, Indonesia.
Corresponding Author: f2201241008@student.untan.ac.id

A B S T R A C T

This systematic literature review investigates the usage of ChatGPT for the learning of English language among non-English majors. Drawing on ten recent studies from the last two years, this study looks at students' perspectives, the impact on language skills, and the challenges of incorporating ChatGPT into learning contexts. The findings show that ChatGPT improves vocabulary acquisition, academic writing, and conversational skills by giving tailored feedback and a low-pressure practice environment. However, issues regarding dependence, ethical use, and the need for teacher direction persist. This paper emphasizes the likelihood of ChatGPT as a complementary learning tool, emphasizing the significance of mixing AI technology with traditional instruction and cultivating AI literacy in order to maximize benefits while maintaining academic integrity.
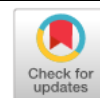
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INTRODUCTION

English has become an important global language for communication, education, and professional development, allowing people from non-English-speaking nations to participate more actively in academic exchange and international collaboration (Rao, 2019). Its importance as a lingua franca grows in tandem with the rising need for English proficiency in higher education and the workplace. Simultaneously, significant technology breakthroughs have created new options for language learning, particularly through the adoption of Artificial Intelligence (AI) in educational environments. AI-powered tools can create dynamic, tailored, and accessible learning experiences that promote skill development in novel ways (Zhai, 2023). These results lay the groundwork for further research into how AI-powered tools like ChatGPT can improve English language learning for a wide range of students, including non-English majors.

Students from non-language disciplines, such as engineering, business, or science, are required to take English in many higher education contexts, but their motivation is sometimes hampered by the perceived irrelevance of course content to their fields of study (Qian & Hu, 2022). Hu and Wang (2025) conducted a quantitative study that indicated the elements within the student dimension (e.g., low intrinsic interest) and class environment (e.g., teaching materials that feel irrelevant) greatly contributed to their demotivation, whereas teacher-related issues had a lower influence. Similarly, in Vietnam, non-English major undergraduates claimed that unappealing learning resources and the scarcity of meaningful communicative practice greatly lowered their enthusiasm to study English (Trinh, 2024). Such issues frequently cause students to see English as a graduation obligation rather than a valued skills

for the future. These findings highlight the significance of altering English learning to the specific contexts and learning motivations of students from non-English disciplines.

The inception of ChatGPT, a sophisticated artificial intelligence language system built by OpenAI, has sparked substantial interest in language education due to its competence in simulating human communication and sustaining interactive discussions. ChatGPT has been shown in EFL contexts to deliver individualized feedback, particularly in writing assignments, hence increasing learner autonomy and engagement (Salainti et al., 2025). A comparative study of higher education students in Lebanon and Palestine found that many learners valued ChatGPT's utility, such as its function in vocabulary development, idea generation, and project preparation (Rafidi & El Khatib, 2025). Some students reported feeling more comfortable experimenting with language since ChatGPT provides a low-pressure setting for practice. These findings suggest that, while ChatGPT has notable prospects in facilitating language learning, its use must be properly integrated into instruction to truly reap its benefits.

ChatGPT provides personalized, on-demand practice due to its timeliness, convenience of use, and level-appropriate interaction, features clearly noted by Huang et al. (2022). This flexibility promotes learner autonomy and deliberate practice, allowing students to interact with language at any time, even outside of scheduled class time. It can also help teachers by creating discipline-specific and ESP-relevant exercises, authentic communication assignments, and immediate feedback in task-based formats. Such abilities contribute to bridging the disparity between academic instruction and real-life language use. Together, these features demonstrate ChatGPT's ability to promote English proficiency in students from non-English disciplines.

Despite its potential, ChatGPT poses risks that must be carefully managed in educational settings. According to Kasneci et al. (2023), over-reliance on the tool can limit learners' critical thinking and creativity, particularly when students accept AI-generated responses without assessment. The same study cautions about threaths concerning academic integrity violations, such as plagiarism and reliance on ChatGPT to complete tasks with little effort. These threaths underline the necessity of developing AI literacy and teaching students how to critically engage with AI outcomes. Without such direction, including ChatGPT into non-English majors' English learning may hinder rather than help the development of important language skills.

Recent study has looked into the use of ChatGPT for language learning; however, the majority of these studies have focused on English majors or advanced learners who already have strong linguistic backgrounds. Non-English majors, on the other hand, frequently confront unique challenges: they have less opportunities to practice English, lower intrinsic motivation, and limited access to specialized language assistance, yet being expected to utilize English for academic and professional purposes. Despite this, there has been little research into how non-English majors use ChatGPT to improve their English learning. Specifically, there has been little emphasis paid to how this tool influences learner autonomy, motivation, and classroom involvement in non-language-focused programs. This literature review aims to fill these gaps by integrating current studies on ChatGPT use among students from non-English fields, providing insights into the tool's potential, limitations, and educational implications in this understudied setting. By doing so, the review contributes to a better understanding of how AI might enhance English learning beyond traditional language majors, broadening the scope of current research.

METHOD

Qualitative research and applied library research were the methods used in this research. Creswell and Creswell (2018) state that the purpose of qualitative research is to comprehend how individuals or groups view their social and human issues. In the meantime, according to George (2019), library research is the process of compiling data from a range of sources, such as books, journals, databases, and other items found in libraries. It entails utilizing a variety of

search methods and approaches to find trustworthy and pertinent information on a specific subject.

Data Source

The data for this study were drawn entirely from published scholarly literature on ChatGPT and English learning for non-English majors. Studies published in peer-reviewed journal articles were examined. To ensure breadth and relevance, searches were carried out on major academic databases such as Mendeley and Google Scholar. The search terms included keywords like "ChatGPT," "English learning," "non-English majors," and "language education." Only works published in English between the last two years were considered, ensuring that the review reflected current technological developments and pedagogical trends.

Instruments

The main instrument in this study was a data extraction table designed to systematically capture and organize key information from each selected study. The table has five columns: number, title, authors, research participants, main purposes, and main findings. This tool ensured that data from various sources were captured in a consistent manner, making it easy to compare research and discover patterns. The usage of a structured table also reduced the likelihood of missing critical details throughout the review process.

Procedures

The systematic literature review procedure followed the PRISMA guidelines and included four major stages: identification, screening, eligibility, and inclusion. During the identification stage, the defined search terms were applied to chosen databases, and all results were imported into reference management software to remove duplicates. During the screening stage, the remaining records were compared to the inclusion criteria, with titles and abstracts checked for potential relevance. During the eligibility step, the complete texts of possibly relevant studies were thoroughly reviewed to ensure they met all requirements. Finally, during the inclusion stage, all eligible papers were read in their entirety, and relevant data were retrieved, classified, and compared to identify recurring patterns, unique insights, and thematic correlations.

Data analysis

The analysis adopted a thematic synthesis strategy to arrange and interpret the results of the literature review. The extracted information was coded based on themes including "advantages and opportunities," "challenges and concerns," and "pedagogical implications." This thematic coding enabled the identification of converging and diverging perspectives across multiple research. The analysis aimed not only to review existing studies but also to identify gaps in the literature, influencing future research into the adoption of ChatGPT as a tool for English learning among learners outside English-related fields.

FINDINGS AND DISCUSSION

Table 1. The identification of ChatGPT in English Learning for Non-English Majors

No.	Title	Authors	Participants	Main Purposes	Main Findings
1.	University Students' Perceptions of Using ChatGPT	Prima and Hartono (2024)	16 hospitality students	To investigate how Indonesian students in higher education view ChatGPT	All participants stated that they usually utilize ChatGPT to help them with their university tasks. Nine students indicated that it was useful for language study, particularly for learning new vocabulary, and that it provided a more straightforward explanation than the teacher.
2.	Using ChatGPT in English Language Learning: A	Ho (2024)	120 I.T. students	To examine learners' behaviors, attitudes, and perceptions toward ChatGPT use in	Despite the fact that ChatGPT is effective for ESP vocabulary acquisition, grammar

No.	Title	Author	Sample	Objective	Findings
	Study on I.T. Students' Attitudes, Habits, and Perceptions			English language learning.	checking, translation, and paraphrase, the findings emphasize the importance of teacher's instruction and a real classroom for students. Students primarily leveraged ChatGPT for quick resolutions to English language difficulties. The study emphasizes the necessity of instructing students on how to use ChatGPT correctly, as well as the importance of conducting additional research into plagiarism detection tools to minimize potential abuse of technology.
3.	The Impact of ChatGPT on English for Academic Purposes (EAP) Students' Language Learning Experience: A Self-Determination Theory Perspective	Du and Alm (2024)	24 postgraduate EAP students	To study the perceptions of English language students toward the integration of ChatGPT as a learning aid for EAP students in a New Zealand university.	ChatGPT can foster self-directed learning and promote skill development by offering flexible learning opportunities, personalized responses in a risk-free practice space. Yet, its influence on interpersonal connection varies, with certain learners feeling a degree of camaraderie, while other learners miss human interaction. Students appreciate ChatGPT's benefits, but emphasize the need of teacher empathy and involvement. These insights can help schools integrate AI tools into language learning.
4.	Exploring the potential of artificial intelligence to enhance the writing of english academic papers by non-native english-speaking medical students - the educational application of ChatGPT	Li et al. (2024)	A group of 25 third-year medical students	To evaluate the impact of large language models, specifically ChatGPT, on enhancing English academic writing skills among students.	Large language models, such as ChatGPT, can improve English academic writing skills for non-native speakers in medical education. These models have the potential to improve educational evaluation, especially in non-English-speaking settings.
5.	Student's Perception on the Use of Artificial Intelligence (AI) ChatGPT in English Language	Laili et al. (2025)	45 health science students	To assess students' opinions about utilizing ChatGPT as an English learning aid, including potential benefits and drawbacks.	The AI tool is valued for its ability to explain complex topics, enhance vocabulary, and aid in writing. The following concerns were identified: information overload, dependency on AI, and need for individualized responses.

No.	Title	Author	Participants	Objective	Findings
	Learning: Benefits and Challenges in Higher Education				
6.	GenAI as a Toolkit for English Academic Writing among International Business Students	Panmei (2025)	43 international business students	To examine the ways in which international business students in Thailand use generative AI in English academic writing and the obstacles they face.	While generative AI provides significant benefits, effective usage necessitates ways to reduce dependency and assure ethical and contextually sensitive application, emphasizing the importance of AI literacy and institutional guidelines.
7.	Use of Chat GPT in English for Engineering Classes: Are Students' and Teachers' Views on Its Opportunities and Challenges Similar?	Synekop et al. (2023)	22 lectures and 60 technical university students	To analyze and compare the attitudes of technical university students and lecturers on using ChatGPT in English classes, as well as their viewpoints on academic integrity issues and the strategies they apply when using ChatGPT.	Students had favorable attitudes, whilst lecturers remained neutral. Both groups agree that ChatGPT is beneficial in improving both hard and soft skills, as well as English language communication abilities. However, they stressed its importance in the enhancement of research competencies. The study highlights important concerns regarding academic integrity, particularly the differing perceptions of potential misconduct held by students and educators.
8.	A Study on the Efficacy of ChatGPT-4 in Enhancing Students' English Communication Skills	Wang (2025)	68 undergraduate students from the Wuhan University of Engineering Science	To examine the possible impact of ChatGPT-4 on improving students' English communication abilities.	ChatGPT-4 helped students improve their English communication skills. Furthermore, students' English communication skills improved greatly after utilizing ChatGPT-4. In general, students' acceptance of ChatGPT showed a substantial increase with the implementation of ChatGPT-4; the contribution of ChatGPT-4 to their English communicative competence was exceptional, creating a relaxed and comfortable environment for students, which is highly advantageous for language development.
9.	Impact of ChatGPT on ESL students' academic writing skills: a mixed methods intervention study	Mahapatra (2024)	134 science and engineering students	To investigate the effect of ChatGPT as a formative evaluation resource for the writing development of undergraduate ESL learners.	ChatGPT contributes significantly on students' academic writing capabilities, while students' perceptions of this influence are also predominantly positive.
10.	Investigating the	Pham (2024)	60 students majoring in	To determine the efficacy of using	The ChatGPT-trained groups made considerable

Effectiveness of Practicing English Conversation with ChatGPT in Improving Non-English Majored Students' English Speaking Skills at Nguyen Tat Thanh University	engineering and business	ChatGPT for practicing English conversation in improving the speaking skills of non-English major students.	increases in conversational fluency, vocabulary, and grammar, while pronunciation improved just little.

This systematic literature review investigates ChatGPT's growing importance as a support tool for English learning among students in non-language disciplines. Overall, the research analyzed suggest that students see ChatGPT as useful and beneficial for improving key language skills such as vocabulary, writing, and communication. At the same time, studies emphasize significant issues such as ethical use, reliance, and the ongoing significance of teacher participation. To make these conclusions more evident, the discussion is divided into four main themes: (1) vocabulary development, (2) writing skills, (3) conversational practice and communication, and (4) challenges and limitations.

Vocabulary Development

ChatGPT significantly improves vocabulary acquisition among non-English majors, according to multiple studies. According to Prima and Hartono (2024), Indonesian hospitality students frequently used ChatGPT to help them with their university assignments, with nearly half citing its value in learning new vocabulary and delivering more straightforward explanations than those provided by instructors. Similarly, Laili et al. (2025) stated that students in the health sciences praised ChatGPT's ability to clarify complex issues and broaden their vocabulary. Ho (2024) also found that I.T. students used ChatGPT to quickly overcome discipline-specific language challenges while learning ESP vocabulary. Together, the results indicate that ChatGPT serves as an accessible and quick vocabulary resource, particularly for non-English majors who may not receive adequate language assistance for their programs. However, these studies also show that vocabulary improvements can be superficial if students depend too heavily on ChatGPT without applying words in meaningful contexts.

Writing Skills

Another prominent theme is ChatGPT's ability to improve writing proficiency. Li et al. (2024) discovered that large language models helped medical students improve their academic writing skills, notably the ability to produce more cohesive and accurate papers. Similarly, Mahapatra (2024) found that ChatGPT was effective in improving the writing skills of science and engineering students, serving as both a formative evaluation tool and a scaffold for revising drafts. Panmei (2025) noticed that international business students in Thailand used ChatGPT to help with English academic writing, but emphasized the importance of developing AI literacy to ensure ethical use and avoid over-reliance. Laili et al. (2025) demonstrated that students enjoyed ChatGPT's role in providing writing assistance, particularly in structuring and polishing their ideas. Collectively, these findings demonstrate ChatGPT's potential as a writing aid for non-English majors, but they also emphasize the need of instructor guidance and institutional regulations in balancing help with the development of independent writing skills.

Conversational Practice and Communication

Several studies have demonstrated ChatGPT's usefulness in promoting communication and conversational practice. Pham (2024) discovered that engineering and business students who practiced speaking with ChatGPT improved significantly in fluency, grammar, and vocabulary, however increases in pronunciation were less noticeable. Wang (2025) discovered that Chinese engineering undergraduates improved their communication skills after using ChatGPT-4, citing higher confidence and describing the tool as establishing a relaxed and

encouraging environment for language practice. Du and Alm (2024) provided additional insights by demonstrating that postgraduate EAP students saw ChatGPT as a beneficial resource for self-directed practice, providing flexible, tailored solutions in a low-pressure environment. These findings collectively show that ChatGPT can operate as a conversational companion, reducing language anxiety and facilitating oral practice, which is especially advantageous for non-English majors with minimal classroom speaking experiences. Nonetheless, while students praised its accessibility, several indicated a need for authentic human engagement.

Challenges and Limitations

Despite its benefits, the reviewed studies revealed a number of challenges. Ho (2024) cautioned against over-reliance, pointing out that I.T. students frequently utilized ChatGPT as a shortcut for tackling language challenges rather than a tool for deeper learning, raising worries about plagiarism and academic integrity. This is consistent with Synekop et al. (2023), who discovered that, while technical university students viewed ChatGPT positively, lecturers remained neutral. It emphasizes issues of academic dishonesty and the necessity for clear boundaries in its application. Laili et al. (2025) also raised concerns about information overload, over-reliance on AI, and a lack of personalized solutions that cater to various learner needs. Panmei (2025) underlined that effective application necessitates AI literacy and institutional guidelines to enable ethical, context-sensitive usage. Finally, Du and Alm (2024) observed that, while some students felt connected to ChatGPT, others lacked the empathy and personal interaction that only teachers could provide. These problems underscore the importance of balancing ChatGPT integration with instructor involvement, ethical safeguards, and measures that promote student autonomy.

CONCLUSIONS

This review reveals that ChatGPT can help non-English majors enhance numerous aspects of their English learning, including vocabulary, writing, and speaking skills. Students generally have a positive attitude regarding its use, praising the tool's accessibility and helpful features. Nonetheless, effective implementation of ChatGPT necessitates careful consideration of issues such as dependency risks, ethical considerations, and the requirement for instructor direction. Educational institutions must consequently develop clear norms and foster AI literacy to ensure that students utilize ChatGPT ethically and effectively. Looking ahead, further study should use longitudinal designs to investigate the long-term influence of ChatGPT on learners' language development and autonomy. To better understand how these factors influence ChatGPT use and outcomes, studies should include more diverse groups, including as students from various disciplines, proficiency levels, and cultural contexts. Furthermore, more research is needed to determine how ChatGPT can promote higher-order skills such as critical thinking, teamwork, and disciplinary-specific English learning, as well as how teachers can be best prepared to incorporate AI effectively into instruction. Such directions will widen the field of research and provide a more complete picture of ChatGPT's role in future language instruction.

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