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Thematic Collection[1]

The Future of Artificial Intelligence in English Language Teaching: Pros and Cons of ChatGPT Implementation through a Systematic Review

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Abstract

The integration of artificial intelligence (AI) into language instruction has presented new opportunities, with ChatGPT emerging as a promising tool for interactive and personalized learning. This systematic review examines the effectiveness, advantages, and drawbacks of the ChatGPT in English language teaching (ELT). To achieve this objective, peer-reviewed studies published between 2023 and 2024 were sourced from the Web of Science database and focused on those that explored ChatGPT for language instruction. Using standardized criteria, data extraction covered the study design, participants, interventions, outcomes, and quality assessments. The findings indicate that the ChatGPT significantly improves language teaching by providing personalized feedback, fostering learner autonomy, enhancing student motivation and engagement, and facilitating specific language skills. Moreover, its ability to simulate real-life conversations makes it an effective tool to improve language fluency and comprehension. Nevertheless, challenges have been highlighted, such as overreliance on AI, academic dishonesty, skill deterioration, biases in AI-generated content, and the digital divide affecting access to AI technology. Integrating AI into existing educational frameworks and addressing the need for teacher training have also emerged as significant concerns. The implications are provided based on these findings.

Keywords: *AI Language Models, Artificial Intelligence in Education, ChatGPT, Educational Technology*

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Introduction

The integration of AI in education has catalyzed a novel pedagogical approach and learning environment, with implications spanning various domains such as ELT (Crompton & Burke, 2023). Among AI resources, ChatGPT (OpenAI), a conversational agent capable of engaging in human-like interactions and offering interactive and personalized learning experiences, is particularly noteworthy for its performance (Kohnke et al., 2023). As AI continues to evolve, its role in enhancing language instruction has been well-documented, particularly in improving interaction and engagement in ELT. Studies have demonstrated that ChatGPT plays a crucial role in providing personalized learning pathways and real-time interaction, with its capacity to provide immediate, tailored feedback, creating a learning environment conducive to individualized instruction and active participation (Al-khresheh, 2024; Kim et al., 2023). Zhang and Aslan (2021) posit that AI technologies have exhibited transformative potential in revolutionizing educational practices, a perspective corroborated by Adiguzel et al. (2023), who emphasize ChatGPT's practical applications in providing personalized learning pathways and real-time interaction. This technology presents an innovative tool that significantly enhances traditional methods of instruction, providing real-time feedback and adaptive teaching practices through natural conversation-style dialogue (Kim et al., 2023).

However, despite these benefits, traditional language instruction approaches have long faced challenges, such as the need for timely feedback, personalized learning paths, and difficulty in sustaining learner motivation. Traditional language instruction approaches encounter various obstacles, including the requirement for prompt feedback, individualized learning paths, and the maintenance of learners' motivation (Yildiz, 2023). As Niyozov et al. (2023) argued, ChatGPT addresses these issues by actively providing immediate corrections, adapting to the pace of each learner, and offering immersive conversational experiences that approximate natural language use. These characteristics create an environment conducive to language learning (Kim et al., 2023). Nevertheless, several studies have highlighted challenges related to AI integration in language instruction, including issues of reliability and potential over-reliance on AI-generated outputs, which may impact the development of critical thinking and self-expression among learners (Abdullah et al., 2022). Ahmad et al. (2021) emphasize that AI in education, while beneficial, poses risks to learner autonomy if it is not carefully balanced with human input. Zhai et al. (2021) further highlighted how AI tools, while offering benefits in engagement and motivation, may make learners dependent on technology, affecting long-term language retention. Nevertheless, integrating ChatGPT into language instruction remains challenging (Abdullah et al., 2022; Halaweh, 2023).

The theoretical foundation for integrating AI into ELT is based on multiple frameworks. Constructivist learning theory posits that learners actively construct their knowledge through interaction. AI tools, such as ChatGPT, facilitate this process by enabling real-time dialogue in which learners can apply their language skills and receive immediate feedback. This interaction promotes the construction of knowledge in a practical context, thereby assisting learners in internalizing the language in meaningful ways (Grubaugh et al., 2023; Kritt & Budwig, 2022). Moreover, cognitive load theory is pertinent as it emphasizes the significance of managing the mental effort required for learning. ChatGPT, by providing adaptive feedback and pacing, can reduce extraneous cognitive load, enabling learners to focus on specific tasks and progress without being overwhelmed by excessive information or complex structures (Hockly, 2023).

Moreover, Vygotsky's scaffolding theory, particularly within the Zone of Proximal Development, is crucial for understanding how the ChatGPT facilitates language learning (Margolis, 2020). By providing appropriate levels of support and gradually reducing them as learners become more proficient, ChatGPT emulates the scaffolding process, enabling learners to achieve higher levels of competence through guided practice (Puntambekar, 2021). This aligns with the role of AI as a facilitator, supporting learners in completing tasks that they may not be able to accomplish independently initially. Xue (2023) examined how scaffolding, especially when implemented through AI tools such as ChatGPT, assists in bridging the gap between what learners can accomplish independently and with assistance. In addition, the self-regulated learning framework plays a significant role in AI-driven language instruction, as tools such as ChatGPT encourage learners to assume control of their learning by establishing goals, monitoring progress, and adjusting strategies based on real-time feedback. Through self-regulation, learners can autonomously monitor their development, reflect on their performance, and adapt their learning behaviour accordingly (Rukiati et al., 2023).

Concerns regarding the reliability of AI-generated outputs and their potentially deleterious effects on human interaction during learning have become salient (Chinonso et al., 2023). Teachers must also consider safeguards to mitigate the possible negative consequences of incorporating such tools, specifically their adverse effects on the interaction between teachers and students and the potential overreliance on AI-generated output rather than self-authored materials (Haleem et al., 2022). For instance, several studies caution about the potential diminishment of teacher-student interaction, which is crucial in facilitating language acquisition (Halaweh, 2023), and emphasize the necessity for teachers to balance AI tools and traditional instructional methodologies. Hamal et al. (2022) posited that while AI tools offer significant pedagogical advantages, the risk of excessive dependence on AI should not be disregarded. These factors necessitate a judicious approach to employing AI language models, which entails utilizing tools, such as ChatGPT, to complement established teaching techniques (Tulasi & Rao, 2023).

A review of recent literature indicates increasing scholarly interest in the role of artificial intelligence in language learning, with a predominant focus on the advantages of tools such as ChatGPT in enhancing learner engagement, providing personalized instruction, and offering real-time feedback (Gyawali & Mehandroo, 2022; Stasser, 2023; Thadphoothon, 2022). However, few studies have conducted in-depth examinations of the challenges, including the potential adverse effects on learner autonomy or the risks associated with excessive reliance on AI-generated outputs. This review presents a comprehensive assessment of the contemporary state of the ChatGPT in the field of ELT, emphasizing the benefits and challenges encountered during its implementation. While previous research has explored isolated aspects of ChatGPT's advantages and challenges, this review aims to address the existing gap by systematically evaluating both dimensions.

To guide this review, the following research questions were posed:

RQ_1: What are the reported benefits of using ChatGPT in ELT, particularly in improving language-learning outcomes?

RQ_2: What challenges and barriers have been identified in integrating ChatGPT into ELT, and how have these challenges been addressed in the existing literature?

Methods

Eligibility Criteria

Specific inclusion and exclusion criteria were established to select studies and ensure a comprehensive and focused systematic review (Meline, 2006). The inclusion criteria were set to include peer-reviewed journal articles, conference papers, and dissertations published in English between 2023 and 2024, which aligned with the launch and subsequent adoption of ChatGPT. Studies were included if they specifically investigated the use of ChatGPT or similar AI language models in ELT; reported on the effectiveness, benefits, and challenges of using ChatGPT in language instruction; and involved learners at any educational level, including primary, secondary, tertiary, and adult education. Exclusion criteria, on the other hand, ruled out editorials, opinion pieces, book reviews, and non-peer-reviewed articles, studies published in languages other than English, studies not focusing on ChatGPT or similar AI language models in the context of language teaching, and those with insufficient data or missing essential information relevant to the review's objectives.

Search Strategy

A high-quality, thoroughly compiled search strategy was used to find the data necessary for this study using only the Web of Science database. Such an approach provides only the highest-quality research materials for the present study (Harris et al., 2014; Unk & Lorusso, 2018). The strategy is based on a broad list of key terms related to the research questions, and aims to identify recent research on the subject between 2023 and 2024. This process required searching terms like "ChatGPT," "language teaching," "ELT," and "AI language models" related to retrieving documents on a data corpus, including relevant articles in the domain of education dissemination. The terms were searched for within the titles, abstracts, and keywords.

Study Selection

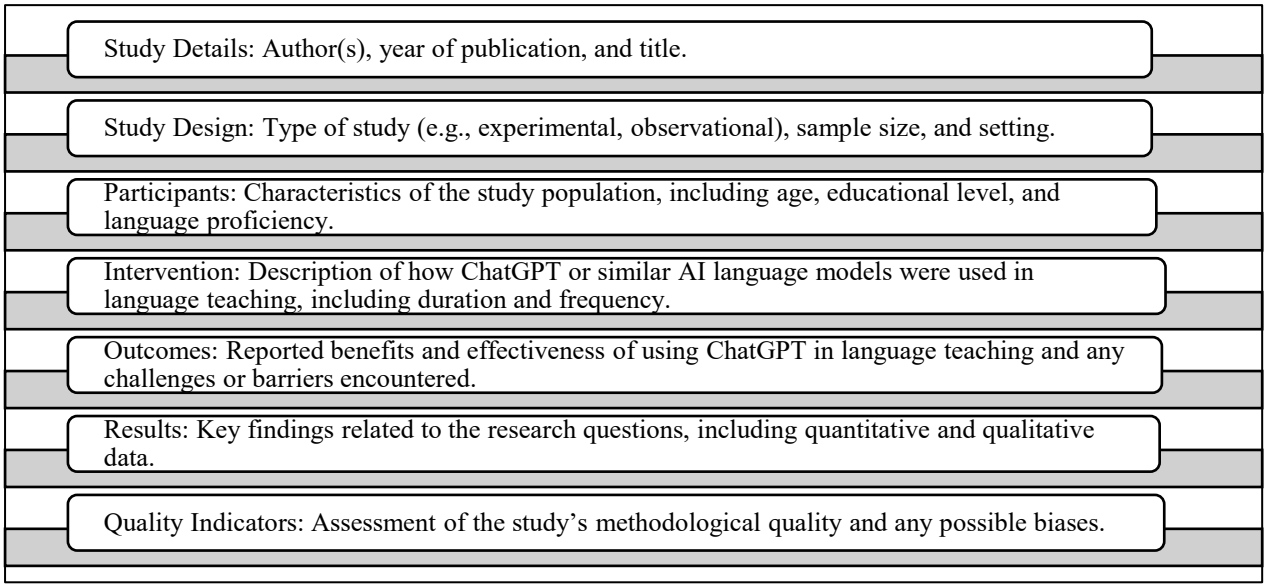
The study selection process was carefully structured to capture relevant, high-quality studies. First, references selected from the Web of Science database based on titles and abstracts were examined for their relevance to predefined inclusion/exclusion criteria. Studies that did not meet the eligibility criteria were excluded. All studies that passed the initial screening were full-text articles retrieved, read, and reviewed for eligibility. The primary purpose of this comprehensive review was to confirm the investigation of language teaching-related articles and their effectiveness, benefits, and challenges found among studies on ChatGPT use — AI language model-based technologies. The reference lists of all the included studies were manually searched to ensure literature saturation and completeness. This iterative process of backward citation tracking was very fruitful for including all relevant studies in the systematic review.

Data Extraction

The data extraction process was designed to gather relevant information from each included study systematically. A standardized data extraction form was used to ensure consistency and comprehensiveness. This form captures the following key elements, as shown in Figure 1.

Figure 1

Elements of Data Extraction Process



Quality Assessment

Standardized criteria were used to assess the quality of included studies. A quality assessment was conducted to detect likely biases and general comprehensiveness of the methodologies used in the studies. Such an assessment is fundamental to systematically reviewing studies (Carroll & Booth, 2015). Table 1 lists the tools and quality criteria used for this study.

Table 1

Quality Assessment Criteria

Evaluation Criteria	Description
Study Design Evaluation	Measured the suitability of the study design for addressing the research questions. Included evaluating study types (e.g., randomized controlled trials, quasi-experimental studies, observational studies) and design strength.
Sample Size and Representativeness	Examined the suitability and representativeness of the sample size. Included checking for appropriate sampling methods and generalizability of findings.
Intervention Description	Assessed the clarity and detail of the description of how ChatGPT was used in language teaching to ensure reliable replication of the interventions.
Outcome Measures	Evaluated the clarity, validity, and reliability of outcome measures. Evaluated the appropriateness of the measures used to assess ChatGPT's benefits and challenges.
Data Analysis	Evaluated the thoroughness of data analysis methods, with the appropriateness of statistical techniques and the depth of the analysis.
Bias and Confounding Factors	Examined potential sources of bias (e.g., selection, performance, detection, and reporting biases) and how they were addressed in the studies.
Ethical Considerations	Assessed the maintenance of ethical standards, including ensuring informed consent and protecting participant confidentiality.

Data Synthesis

In the data synthesis process, the extracted records were systematically combined and analyzed to synthesize comprehensive judgements on utilizing the ChatGPT in ELT. Qualitative and quantitative data were analyzed to comprehensively understand the research results. Qualitative studies were analyzed using thematic analysis to discover and describe the patterns occurring within them. Coding was a process of condensing the data into codes, and then clusters of similar codes were analyzed for overarching themes that responded to the research questions. When possible, we performed a meta-analysis of quantitative data. This entailed aggregating data from various studies to generate the overall effect sizes. We used statistical methods to evaluate the homogeneity of the results across studies and identify potential sources of heterogeneity. When a meta-analysis was not feasible due to the heterogeneity of the studies, a narrative synthesis was conducted to summarize and interpret the findings. The synthesis process also critically evaluates the strength and quality of the evidence-based quality assessments conducted in the previous step. The results were presented in a structured format, highlighting both the benefits and challenges of using ChatGPT in language teaching and identifying gaps and inconsistencies in the current literature.

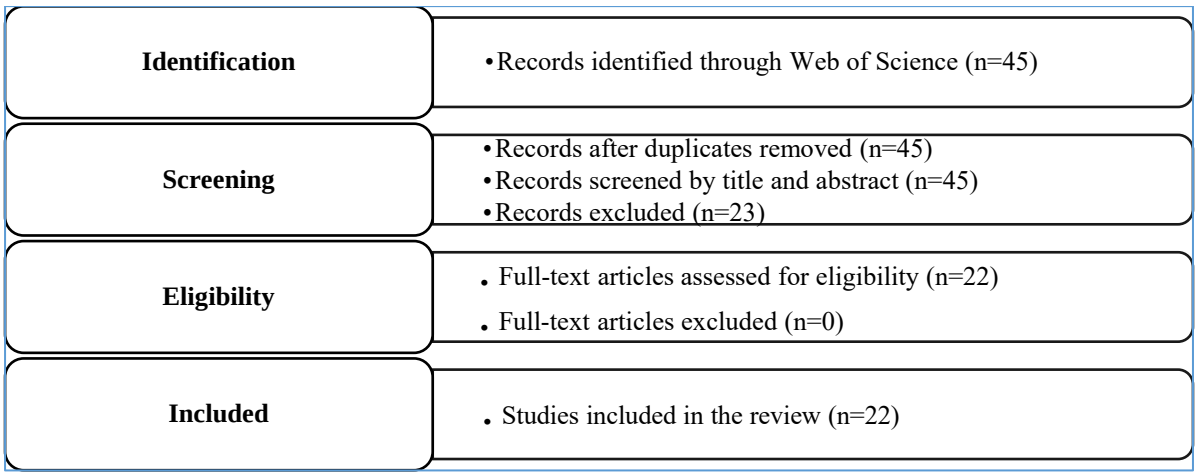
Results

Study Selection

Forty-five studies were initially identified using the WoS database. After screening the titles and abstracts for relevance, 23 studies were excluded, leaving 22 for full-text review. All 22 studies met the inclusion criteria and were included in this systematic review. The study selection process is illustrated in Figure 2.

Figure 2

Study Selection Process for Systematic Review



After conducting a comprehensive analysis of pertinent studies, as illustrated in Figure 2, Table 2 presents a thematic summary of the primary research investigating the integration of ChatGPT into ELT. This table categorizes the studies according to their methodological approaches, significant findings, and areas of emphasis, providing a well-organized perspective on the advantages and challenges of utilizing ChatGPT as a pedagogical tool in language education. Examining these themes, the table supports a more profound comprehension of the

implications and applications of the ChatGPT, extending beyond individual study titles to identify broader patterns and critical results in the research domain.

Table 2

Thematic Overview of Studies on ChatGPT in ELT

Study Design	Number of Studies	Geographic Focus	Intervention Focus	Key Outcomes
Quantitative Studies (Surveys)	7	Iran, China, Philippines, Oman	Teacher acceptance, learner attitudes	Teacher/learner acceptance, behavioral intentions, improved engagement
Qualitative Studies (Interviews, Case Studies)	6	Oman, Indonesia, Global	Student experiences, teacher perspectives	Enhanced writing skills, autonomy, engagement
Mixed-Methods	4	North America, China, Turkey	Language skills development, technology integration	Improved fluency, vocabulary acquisition, personalized feedback
Theoretical/Conceptual Reviews	3	Global	Benefits and challenges of AI in language learning	Ethical considerations, reduced teacher workload
Experimental Studies	2	Turkey, Iran	Writing tasks, EFL teaching effectiveness	Enhanced grammar and writing skills, lesson planning

Study Characteristics

The included studies varied in design, sample size, and intervention details. Table 3 summarizes their characteristics.

Table 3

Study Characteristics of ChatGPT in ELT

Study Title	Study Design	Sample Size	Participant Demographics	Intervention Description	Outcome Measures
The Impact of ChatGPT on English Language Teaching, Learning, and Assessment: A Rapid Review of Literature	Rapid Review	N/A	N/A	Examines the role of ChatGPT in enhancing English language teaching, learning, and assessment	Various educational outcomes (learning, assessment)
Understanding Teachers' Perspective toward ChatGPT Acceptance in English	Quantitative (cross-sectional)	114	English language teachers	Examines teachers' perspectives on ChatGPT adoption using the TAM model, with an	Teacher acceptance, behavioral intention, system use

Language Teaching				online questionnaire	
ChatGPT for Language Teaching and Learning	Technology Review	N/A	N/A	Reviews the use of ChatGPT in language teaching and learning, highlighting its benefits and drawbacks, and necessary digital competencies for its use	Ethical use and effectiveness in language teaching
ChatGPT and ELT: Exploring Teachers' Voices	Mixed Methods	115	English language teachers in Metro Manila, Philippines	Explores teacher perceptions of ChatGPT in ELT for tasks like vocabulary expansion, writing practice, and language fluency	Teacher perspectives on ChatGPT in improving language skills and concerns about AI content
Opportunities and Challenges of Using ChatGPT in the ELT Scenario of UTAS, Nizwa, Oman	Qualitative (Interviews, Literature Review)	30	University students in Oman	Explores the opportunities and challenges of using ChatGPT in ELT	Opportunities and challenges identified
Exploring Iranian EFL Teachers' Acceptance of ChatGPT in English Language Teaching	Quantitative (Survey)	234	Iranian English teachers	Investigates the factors influencing ChatGPT acceptance in ELT using the TAM model	Teacher acceptance and technology adoption
ChatGPT as a CALL Tool in Language Education: A Study of Hedonic Motivation Adoption Models in English Learning Environments	Quantitative (Survey with SEM)	189	Chinese international students in British universities	Investigates the role of hedonic motivation in ChatGPT adoption for English learning	Perceived usefulness, ease of use, motivation
The Potentials of ChatGPT for Language Learning: Unpacking its	Exploratory Case Study	18	Language students from Indonesia	Examines students' perspectives on the benefits and limitations of	Writing skills improvement, vocabulary acquisition

Benefits and Limitations				ChatGPT for personalized learning and writing support	
Assessing the Usability of ChatGPT for Formal English Language Learning	Quantitative (Survey)	Diverse group of students (size not specified)	Students with varying English proficiency and nationalities	Assesses the usability of ChatGPT for performing English language learning tasks such as writing, grammar, and conversation	Usability, learner satisfaction
Factors Influencing Learner Attitudes Towards ChatGPT-Assisted Language Learning in Higher Education	Mixed Methods (Survey and Interviews)	Size not specified	Higher education students	Investigates factors influencing learner attitudes towards ChatGPT-assisted learning, using SEM and interviews	Learner attitudes, performance expectancy, satisfaction
ChatGPT as a Language Learning Tool: An Emerging Technology Report	Technology Report	N/A	N/A	Reports on the role of ChatGPT in language learning, focusing on accessibility, personalization, and challenges	Role of ChatGPT in complementing traditional instruction
Cheating With ChatGPT: The Relationship Between Learner Autonomy, Engagement With AI, and Russian (L2) Learners' Attitudes	Mixed Methods	Russian language learners in North America	Russian (L2) college students	Examines the relationship between learner autonomy and the use of ChatGPT in language learning	Learner autonomy, cheating concerns
Exploring the Dimensions of ChatGPT in English Language Learning: A Global Perspective	Grounded Theory	20 ResearchGater users	Global users of ChatGPT	Explores the dimensions in which ChatGPT aids English language learning	Model for AI-assisted language learning (AIALL)

An Exploratory Study of EFL Learners' Use of ChatGPT for Language Learning Tasks: Experience and Perceptions	Qualitative (Interviews)	5 students	EFL learners from China	Explores students' experiences and perceptions of using ChatGPT for completing language tasks	Personalized learning, critical judgment
Revolutionizing Language Learning: How ChatGPT and AI are Changing the Way We Learn Languages	Qualitative (Phenomenological Design)	8 learners and 3 teachers	English language learners and teachers	Investigates experiences of language learners and teachers with ChatGPT in the language learning process	Benefits of AI in language learning, teacher and learner experiences
Exploring the Ethical Dimensions of Using ChatGPT in Language Learning and Beyond	Ethical Analysis	N/A	N/A	Discusses the ethical considerations of using ChatGPT in language learning, including privacy, bias, and academic integrity	Ethical implications for AI in education
Incorporating AI in Foreign Language Education: An Investigation into ChatGPT's Effect on Foreign Language Learners	Qualitative Case Study	13 students	Preparatory class students in Turkey	Investigates ChatGPT's effect on foreign language learning, focusing on writing and vocabulary acquisition	Writing skills, grammar, vocabulary acquisition
The Empowerment and Impact of ChatGPT Technology on Foreign Language Education in Colleges and Universities	Experience Report	N/A	N/A	Explores how ChatGPT empowers students and teachers in foreign language education	Empowerment, student-teacher dynamics
Integrating ChatGPT in Language Education: A Freirean Perspective	Conceptual Analysis	N/A	N/A	Analyzes ChatGPT through the lens of Paulo Freire's critical pedagogy, focusing on equity and social justice	Equity, learner agency, AI literacy

				in language learning	
Exploring Inventions in Self-Directed Language Learning with Generative AI: Perspectives of YouTube Content Creators	Qualitative (Interviews)	14 content creators	YouTube content creators	Investigates content creators' perspectives on using ChatGPT for self-directed language learning	Self-directed learning, AI literacy, ethical considerations
Using ChatGPT for Second Language Writing: Pitfalls and Potentials	Technology Review	N/A	N/A	Reviews the benefits and challenges of using ChatGPT for L2 writing	Writing support, plagiarism concerns
RECIPE: How to Integrate ChatGPT into EFL Writing Education	Case Study	213 students, 7 instructors	EFL students and instructors	Explores the use of ChatGPT in EFL writing education through a custom platform called RECIPE	Usage patterns, student perceptions

The studies outlined in Table 3 reveal several research designs, including quantitative approaches (e.g., cross-sectional surveys), qualitative methods (e.g., interviews and case studies), and mixed-methods research. Many studies have employed surveys to assess teachers' and students' acceptance, usability, and attitudes towards integrating the ChatGPT in language learning contexts. Qualitative investigations, often through interviews and focus groups, provide in-depth insights into user experiences. Simultaneously, mixed-method studies combine quantitative and qualitative data to offer a comprehensive analysis of the impact of ChatGPT. The sample sizes varied considerably across studies. Smaller exploratory studies (e.g., with 5-30 participants) are common, often focusing on specific user experiences or perceptions. Larger-scale studies (e.g., with over 200 participants) typically examine broader trends in adoption and efficacy, particularly within higher education contexts and among EFL learners and teachers. Concerning intervention types, studies have unswervingly explored ChatGPT's applications in language learning, such as enhancing writing skills, providing grammar and vocabulary support, and facilitating conversational practice.

Quality Assessment Results

The quality of the studies was assessed based on certified criteria, such as sample size and risk for bias factors (e.g., randomization, blinding) or the definition and replicability of interventions. Consistently, high-quality studies include well-constructed designs, clearly described interventions, more prominent (or more representative) sample sizes, and the use of validated outcome measures. These studies also controlled for biases by including validated instruments and applying systematic data analysis, which would have also increased the quality of the results.

However, medium-quality studies are plagued by certain confounding factors, most often due to smaller sample sizes, context-specific challenges, and possible biases, for instance, from self-reported data. Although informative, the generalizability and methodological limitations of these studies may provide definitive conclusions. In particular, context-specific case studies or preliminary research with small samples play a significant role within their contexts in shedding light on the function of ChatGPT in ELT.

The final quality assessment of the studies highlighted variations in their methods. A few studies used well-constructed mixed methods or quantitative measures, whereas others used more exploratory study designs. Our appraisal of the potential influence of each study within a broader research investigation of ChatGPT in language teaching was complemented by methodological consistency. Table 4 provides an aggregate summary of the quality assessment findings, listing the possible strengths and criticisms of each study and the respective overall ratings on a scale.

Table 4

Summary of Quality Assessment for Each Study

Study Details	Quality Indicators	Potential Biases	Overall Quality Rating
The Impact of ChatGPT on ELT	Clear intervention, valid measures	None identified	High
Teachers' Perspective on ChatGPT	Robust methodology, representative sample	Potential self-report bias	Medium
ChatGPT for Language Teaching and Learning	Mixed methods, diverse data sources	Small sample size	High
ChatGPT and ELT: Teachers' Voices	Qualitative rigor, rich data	Limited generalizability	High
Opportunities and Challenges of Using ChatGPT in UTAS, Oman	Case-specific insights, qualitative data	Limited to a specific context	Medium
Iranian EFL Teachers' Acceptance of ChatGPT	Large sample, valid measures	Potential selection bias	High
ChatGPT as a CALL Tool	Mixed methods, thorough analysis	Small sample size	High
Potentials of ChatGPT	Comprehensive review, detailed analysis	None identified	High
Assessing the Usability of ChatGPT	Detailed usability metrics	Small sample size	Medium
Learner Attitudes Towards ChatGPT	Large sample, valid measures	Possible self-report bias	High
ChatGPT as a Learning Tool	Emerging trends, comprehensive analysis	None identified	High

Cheating With ChatGPT	Mixed methods, diverse perspectives	Potential self-report bias	Medium
Exploring the Dimensions of ChatGPT in English Learning	Large sample, global perspectives	Possible selection bias	High
EFL Learners' Use of ChatGPT	Rich qualitative data	Small sample size	Medium
Revolutionizing Language Learning	Theoretical insights	Theoretical basis, no empirical data	High
Exploring the Ethical Dimensions of ChatGPT	Thorough ethical analysis	None identified	High
Incorporating AI in Foreign Language Education	Experimental design, valid measures	Small sample size	Medium
Empowerment and Impact of ChatGPT	Qualitative rigor, rich data	Limited generalizability	High
Integrating ChatGPT in Language Education (Freirean Perspective)	Freirean analysis, thorough discussion	None identified	High
Exploring Self-Directed Learning with AI	Case study insights	Small sample size	Medium
ChatGPT for Second Language Writing	Mixed methods, diverse data sources	Small sample size	High
Integrating ChatGPT into EFL Writing	Practical guide, clear strategies	None identified	High

The quality of the studies included in this analysis was generally high, particularly those utilizing mixed-methods approaches and more prominent, representative sample sizes. Studies focusing on teachers' perspectives regarding ChatGPT acceptance and its capability in structured learning environments are particularly noteworthy for their comprehensive methodologies. These studies employed valid and reliable measures and addressed a wide range of educational contexts, thus enhancing the credibility and applicability of their findings. However, several studies, especially those using qualitative or case study methodologies, have limitations such as smaller sample sizes and reduced generalizability. In addition, the use of self-reported data from surveys and interviews sometimes posed possible biases.

Synthesis of Findings

Benefits of Using ChatGPT in ELT

This review identified several benefits of using ChatGPT in ELT, such as improved language skills (vocabulary, grammar, and writing), enhanced learner autonomy, and personalized learning experiences. These benefits have been observed across various contexts, from formal education to self-directed learning. Table 5 presents the key benefits identified in these studies.

Table 5

Key Benefits of ChatGPT Integration in ELT

Study Details	Reported Benefits	Key Findings
The Impact of ChatGPT on ELT	Enhanced fluency, individualized feedback	ChatGPT facilitates fluency practice and provides personalized language feedback.
Understanding Teachers' Perspective on ChatGPT	Ease of use, positive attitude toward adoption	Teachers highlighted the ease of integrating ChatGPT in classrooms and positive behavioral intentions for its use.
ChatGPT for Language Teaching and Learning	Personalized learning, digital competencies	ChatGPT supports individualized learning and fosters essential digital competencies.
ChatGPT and ELT: Teachers' Voices	Vocabulary expansion, writing skills	Teachers reported improved vocabulary and writing skills among students using ChatGPT.
Opportunities and Challenges of ChatGPT in UTAS, Oman	Problem-solving support, reduced teacher workload	ChatGPT aids in problem-solving and reduces teacher workload, allowing for more efficient lesson planning.
Exploring Iranian EFL Teachers' Acceptance	Higher acceptance of technology	Teachers showed an increased willingness to integrate ChatGPT into language learning tasks.
ChatGPT as a CALL Tool	Increased motivation, immersive learning	Students experienced greater motivation and immersion in language learning tasks.
The Potentials of ChatGPT for Language Learning	Writing support, vocabulary acquisition	Students improved their writing skills and vocabulary acquisition through ChatGPT's support.
Assessing the Usability of ChatGPT	High usability and accessibility	ChatGPT was considered highly usable for formal tasks like writing, grammar, and vocabulary exercises.
Factors Influencing Learner Attitudes Towards ChatGPT	Positive learner attitudes, improved learning outcomes	Behavioral intention positively influenced learning outcomes in ChatGPT-assisted learning.
ChatGPT as a Language Learning Tool	Personalized feedback, immersive learning	ChatGPT provided personalized feedback and facilitated immersive learning experiences.
Cheating With ChatGPT	Enhanced learner autonomy, responsible use	Autonomous learners used ChatGPT responsibly to improve their language skills.
Exploring the Dimensions of ChatGPT in English Learning	Improved language skills, increased autonomy	ChatGPT helped students practice language skills and fostered learner autonomy.
An Exploratory Study of EFL Learners' Use of ChatGPT	Personalized feedback, improved critical judgment	EFL learners valued the immediate feedback and demonstrated critical judgment in evaluating ChatGPT outputs.
Revolutionizing Language Learning	Enhanced learning experiences, curriculum integration	ChatGPT was viewed as a valuable tool for language learning, with potential for curriculum integration.

Exploring the Ethical Dimensions of ChatGPT	Ethical awareness, responsible AI usage	ChatGPT helped promote ethical awareness in educational contexts.
Incorporating AI in Foreign Language Education	Improved grammar and vocabulary skills	Learners experienced improvements in grammar and vocabulary through ChatGPT.
Empowerment and Impact of ChatGPT	Student empowerment, enhanced teacher-student dynamics	ChatGPT empowered students and fostered improved teacher-student relationships.
Integrating ChatGPT in Language Education	Critical thinking, learner agency	ChatGPT encouraged critical thinking and supported learner autonomy.
Exploring Inventions in Self-Directed Learning	Enhanced self-directed learning, versatile AI use	ChatGPT played a crucial role in supporting self-directed learning among students.
Using ChatGPT for Second Language Writing	Writing improvement, grammar correction	Students improved their writing structure and grammar with ChatGPT's support.
Integrating ChatGPT into EFL Writing	Practical writing support, improved engagement	The RECIPE platform demonstrated ChatGPT's ability to engage students in writing and improve their output.

Table 5 shows the significant advantages of incorporating ChatGPT into ELT as reported in 22 studies. One prominent benefit of ChatGPT is its capacity to offer customized, immediate feedback on writing and grammar tasks, leading to improved vocabulary acquisition, grammatical accuracy, and writing abilities. Numerous studies have also underscored the role of ChatGPT in enhancing student engagement and nurturing learner autonomy, allowing learners to practice independently and gain confidence. For teachers, ChatGPT aids in lesson planning and reduces workload by automating feedback, enabling greater focus on instructional strategies. Furthermore, it facilitates self-directed learning, helping students manage their language practice, particularly in writing and conversational tasks. Although these studies emphasize the positive impacts, the comprehensive integration of ChatGPT is contingent upon the context and digital competencies of both learners and teachers.

Challenges and Barriers to Integrating ChatGPT in ELT

Although studies have indicated numerous advantages of incorporating ChatGPT into language instruction, several obstacles and impediments have been revealed. These obstacles encompass technical constraints and pedagogical apprehensions, which can hinder the efficient integration of the ChatGPT into language teaching. Table 6 provides a concise summary of the challenges reported in these studies.

Table 6 presents the challenges reported using ChatGPT in ELT across the 22 studies. Most notably, the tool produces many false positives that can mislead learners and reduce their overall practicality of providing precise and subtle language support. Moreover, the verbosity of some AI-generated outputs exacerbates this issue, limiting the feedback necessary for learners to understand the more complex linguistic features. Academic misconduct, principally plagiarism, is referenced regularly. The tool's capacity to produce text effortlessly raises concerns that learners may exploit it to evade meaningful learning attempts. This issue is compounded by the risk of skill atrophy, with students relying excessively on AI for tasks that

require active engagement and critical thinking, thus reducing their interaction with traditional instructional strategies.

Table 6

Key Challenges and Barriers to Integrating ChatGPT in ELT

Study Details	Reported Challenges	Key Findings
The Impact of ChatGPT on ELT	Inaccurate responses, academic dishonesty, plagiarism, skills deterioration, generic responses	ChatGPT's inaccuracies, potential for plagiarism, and generic responses raised concerns about academic dishonesty and skills deterioration.
Understanding Teachers' Perspective on ChatGPT	Academic dishonesty, skills deterioration, over-reliance	Teachers worried about over-reliance on ChatGPT leading to skill degradation and increased plagiarism risks.
ChatGPT for Language Teaching and Learning	Ethical concerns, over-reliance, digital competency gaps	Ethical concerns, the need for digital literacy, and over-reliance on AI were highlighted as challenges in its integration.
ChatGPT and ELT: Teachers' Voices	Lack of contextual understanding, plagiarism, cheating	ChatGPT's inability to offer nuanced responses, the risk of plagiarism, and student cheating were raised as major challenges.
Opportunities and Challenges of ChatGPT in UTAS, Oman	Over-reliance, lack of teacher training, accuracy concerns	Insufficient training, Over-reliance on ChatGPT, and accuracy concerns limited its effective use.
Exploring Iranian EFL Teachers' Acceptance	Fear of AI replacing teachers, technological dependence, trust issues	Concerns about AI replacing traditional teachers and over-dependence on technology emerged, along with trust in AI.
ChatGPT as a CALL Tool	Boredom, dependency on AI, motivation variability	Some students experienced boredom and became overly dependent on AI, while others showed fluctuating motivation.
The Potentials of ChatGPT for Language Learning	Cheating, ambiguous information, plagiarism	Risks of cheating and receiving ambiguous or inaccurate information from ChatGPT were key concerns.
Assessing the Usability of ChatGPT	Technological access, varied proficiency levels, unequal engagement	Technological barriers, varied learner proficiency, and unequal student engagement affected ChatGPT's usability.
Factors Influencing Learner Attitudes Towards ChatGPT	Over-reliance, ethical concerns, reduced autonomy	Ethical concerns about academic honesty and over-reliance on AI were associated with reduced learner autonomy.
ChatGPT as a Language Learning Tool	Misuse for academic dishonesty, reduced learning depth	Misuse of ChatGPT for cheating and superficial engagement with learning tasks were reported challenges.
Cheating With ChatGPT	Encourages cheating, over-reliance, unethical usage	ChatGPT was found to encourage academic dishonesty and over-reliance, which impacted genuine learning efforts.
Exploring the Dimensions of ChatGPT in English Learning	Ethical concerns, lack of accountability, AI misinterpretations	Ethical concerns, lack of student accountability, and instances of AI misinterpreting user input were key barriers.
An Exploratory Study of EFL Learners' Use of ChatGPT	Inaccurate responses, dependency on AI, reduced critical thinking	Inaccurate responses, dependency on ChatGPT, and reduced critical thinking skills were identified as challenges.

Revolutionizing Language Learning	None reported	No specific challenges were reported in this study, focusing more on potential positive future applications.
Exploring the Ethical Dimensions of ChatGPT	Privacy issues, AI bias, misuse of data	Privacy risks, bias in AI outputs, and concerns about data misuse were crucial challenges.
Incorporating AI in Foreign Language Education	Over-reliance on AI, skill erosion, passive learning	Concerns about over-reliance on AI, erosion of core language skills, and the risk of fostering passive learning were noted.
Empowerment and Impact of ChatGPT	Teacher job security, technology disruption, role reduction	Fears over AI disrupting traditional teaching roles and reducing teacher job security were prominent concerns.
Integrating ChatGPT in Language Education	Fostering passive learning, plagiarism, diminished critical thinking	ChatGPT could foster passive learning habits, increase plagiarism, and limit critical thinking.
Exploring Inventions in Self-Directed Learning	Lack of supervision, ethical concerns, shallow learning	Ethical concerns over unmonitored AI usage and the risk of students engaging in shallow learning were highlighted.
Using ChatGPT for Second Language Writing	Over-dependence on AI, reduced skill development, plagiarism	Over-reliance on AI for writing tasks reduces skill development and increases plagiarism.
Integrating ChatGPT into EFL Writing	Superficial engagement, lack of depth, plagiarism risks	Some students only superficially engaged with ChatGPT, leading to risks of plagiarism and limited learning depth.

One of the most common complaints was that there is a risk of becoming too dependent on AI, with several articles warning not to stay away from this kind of learning but rather to use it as support for teachers. This has the potential consequence of passive learning (because students generate answers from AI) without putting them through critical cognitive processes. This is primarily a concern with self-directed learning, where investigating AI could result in surface engagement and poor-quality learning outcomes. Some studies have raised ethical questions regarding privacy, data security, and bias in algorithmically generated content. The extent to which data can be misused and AI responses are inherently biased are significant hurdles to the responsible and ethical use of ChatGPTs for educational purposes.

Discussion

Research Question 1

A review of 22 studies revealed numerous substantial benefits of integrating ChatGPT into language instruction for better learning outcomes. One of the significant strengths of the tool is its ability to provide customized, immediate feedback in target areas, such as writing and speaking, as well as other essentials, such as working with grammar or new strategies for vocabulary acquisition. This pursued learning approach fosters self-direction in outputs, as they can work autonomously with personalized real-time support (Barrot, 2023a). Immediate correction encourages repetitive practice and is indispensable for language improvement and vocabulary broadening (Meniado, 2023).

Numerous studies have examined the flexibility and pervasiveness of ChatGPT, which has resulted in a favourable perspective from educators and students regarding its possible implementation (Shaikh et al., 2023). The tool's ease of use, which automated several ordinary

tasks, such as creating instructional slides and assessments, helped teachers lessen their work overhead, diverting more time for direct instruction (Mutammimah et al., 2024). Due to this seamless integration, there has been an increase in teachers' acceptance of technology and their use of AI in their teaching practices (Dehghani & Mashhadi).

ChatGPT has been reported to improve writing skills and vocabulary in some studies. ChatGPT provides feedback sentences to be used in context when writing and working with students on their grammar and structure (Barrot et al., 2023a; Kohnke et al., 2023). The problem-solving guidance of the tool also helps students solve problems in learning a language more effectively, which reduces some instruction from teachers and leaves personal one-to-one for excessive specific e-instruction (Han et al., 2023). Studies have also revealed that ChatGPT improves student motivation and engagement, enabling interactive and engaging learning scenarios (Cai et al., 2023). The tool encourages engagement with lesson content through realistic talks, enhancing live language usage and practical situation skills. For instance, much-needed repetition is best suited for a task with painstakingly tedious practices (Qu & Wu, 2024; Solak, 2024). ChatGPT provides individual learning advantages and brings teachers and students closer together by making them more involved and responsible for their education. This supports learner autonomy, as students learn to analyze language independently (Asemani, 2024). In addition, the tool promotes the development of critical thinking and analytical skills as students are involved in reflective dialogue with AI. In certain studies, learners have unveiled subtle ethical awareness and responsible AI usage, recognizing the importance of using technology (Vaccino-Salvadore, 2023).

The most important strength of ChatGPT is that it offers instant and personalized feedback, which is fundamental for learning a language. Quick feedback allows students to correct errors quickly, encourages learning behavior, and increases self-variables, such as grammar (Barrot, 2023a). Adaptive learning theories highlight the need to tailor instruction based on the unique needs of learners to increase motivation and learning outcomes (Meniado, 2023).

The ability of ChatGPT to emulate conversational interaction aligns with the philosophy of communicative language teaching methodology, which stresses the use of language in authentic contexts. ChatGPT plays a pivotal role in enhancing language fluency and developing the ability to understand, which is another vital characteristic of learning a new language (Mabuan, 2024). Furthermore, ChatGPT promotes learner autonomy, a foundational principle of self-regulated learning, in which students set their own goals and track progress autonomously (Asemani, 2024).

The tool efficiently reduces teachers' workload by providing automated feedback and material creation, which fits the current trends in technology-enhanced learning using digital resources to support teaching practices (Dehghani & Mashhadi, 2024). ChatGPT's automation of menial tasks allows teachers to focus on creative teaching approaches and face-to-face student interactions, thus elevating the quality of general instruction (Govindarajan & Chungrajngeon, 2022).

The benefits described above align with those of previous research on technology-enhanced language learning. Research on computer-assisted language learning has repeatedly demonstrated that technology can produce individualized and interactive language learning contexts enhanced by technological support (Barrot, 2023b). ChatGPT takes this idea forward with real-time interaction, one of the crucial elements in language skills enhancement at

fluency and grammar levels (Kohnke et al., 2023). Cai et al. (2023) and Li and Wang (2023) claimed that digital tools help to ensure student motivation by providing interactive learning experiences to engage students in the lesson process. The prompt feedback and ability to tailor learning through the ChatGPT further reinforce these findings, suggesting that it may be instrumental in improving engagement levels and academic performance (Bin-Hady et al., 2023).

To conclude, the existing corpus of research provides strong evidence of how ChatGPT democratizes custom feedback provision in language teaching contexts while simultaneously boosting student-centered learning and self-directed study. ChatGPT has excellent potential to help with self-directed learning, meaning that learners can customize their language journeys themselves. Such results support the utilization of AI-powered learning modules, such as ChatGPT, to supplement conventional methodology and provide individualized and interactive literacy practices that improve language skills significantly (Nugroho et al., 2021; Xiao & Zhi, 2022).

Research Question 2

After reviewing 22 studies, several significant barriers were identified by incorporating the ChatGPT into language instruction. A major problem is that it produces inaccurate or oblivious responses from language learners, and this tool's effectiveness in delivering precise, contextually accurate feedback might not be achieved. However, these issues are not always insurmountable. As cited by several studies, with proper strategies and assistance, teachers can systematically deal with these challenges to effectively integrate ChatGPT into language teaching. Some studies stress that these inaccuracies can lower the reliability of a tool, especially in situations where language learners have low proficiency levels (Meniado, 2023; Nugroho et al., 2023).

Academic dishonesty and various forms of plagiarism have become major challenges. The capacity of ChatGPT to generate coherent text promptly raises concerns about its probable misuse, with students possibly bypassing the learning process using the tool to complete assignments. This risk is even more apparent in activities such as writing essays and solving language exercises, where students eventually rely excessively on AI-generated content, which causes the quality of their linguistic abilities to be nosedive. There may be reduced student engagement in critical thinking and language production, thus reducing opportunities for authentic learning, with the inherent risk that this poses to their development of overall language proficiency (Asemani, 2024; Barrot, 2023a).

Researchers often sound alarmed about the potential risks of over-reliance on AI tools, such as ChatGPT. They stressed that these are supplements, but not replacements, for active language learning. This heavy reliance on AI risks passive learning, where learners do not critically engage with language tasks and accept the outputs produced by AIs without further thought or understanding (Alm & Watanabe, 2023). This is a concern, especially in learning environments characterized by self-direction, because a lack of supervision can encourage less than deep approaches to learning. In such situations, learners may only be involved with the material at the surface level without openly mastering the language skills necessary for significant progress (Li et al., 2014; Qu & Wu, 2024).

A recurring and focused topic throughout the studies was ethical considerations, specifically the privacy and bias of AI. Given that ChatGPT works on top of large language models that need to be trained on massive datasets, it poses concerns regarding how personal information is processed and secured. It also raised the alarm that AI-generated responses could carry bias based on what was fed as the training data. This concerns their propriety and cultural partisanship, especially in diverse educational realms (Cai et al., 2023; Vaccino-Salvadore, 2023).

Tech access disparity is an important subject that needs to be addressed, as some students may not have the requisite digital skill set or resources to take advantage of the ChatGPT. This gap will contribute only to existing educational disparities, particularly in areas that do not have broadband connectivity. Research has also shown a need for teacher training in AI integration, as many teachers feel ill-prepared to place ChatGPT within their pedagogical repertoire meaningfully. If not accompanied by clear guidance, the benefits of the tools are less than those of outdated teachers who implement AI in the classroom (Govindarajan & Christuraj, 2024; Mutammimah et al., 2024).

Most of the highlighted challenges in this review result from the limitations associated with AI technology and/or its deployment in educational settings. For instance, a language model such as ChatGPT generates text using probabilistic algorithms, which can be one of its limitations, as they tend to output generic, untruthful responses (Bin-Hady et al., 2023). Nevertheless, such systems might not always have the prerequisite capability to deal with complex language tasks that demand thorough context understanding and, hence, the possibility of errors. This lack of sophistication in accuracy and context can be detrimental to language learning, especially since students learn how to speak a certain way more slowly (Kohnke et al., 2023; Li & Wang, 2023).

Academic misconduct and plagiarism are real threats, especially as the broader adoption of AI tools, such as ChatGPT, makes it easier to produce content without effort. In addition, the possibility of skill erosion is heightened when students rely on AI to perform tasks rather than actively engaging with the material, which weakens the development of critical thinking and language production skills that are crucial for language learning (Barrot, 2023a; Asemani, 2024).

At a general level, excessive dependence on AI and encouragement for passive learning raises concerns over the inclusion of technology in education. Research on the effectiveness of technology has consistently shown that digital tools can play a supportive role in learning. However, they should not be misconstrued as replacements for traditional learner-driven instruction. Dependence on AI for answers may deprive students of cognitive processes, mitigating the building of a richer understanding or skill (Dehghani & Mashhad, 2024; Li et al., 2024).

The literature review highlighted ethical concerns regarding privacy and bias in the use of AI in education. The use of massive datasets by ChatGPT brings into the equation questions how the learner's information is processed and secured, which is even more relevant in learning environments where data protection is principal. Further, these biases inherent in the AI-generated content re-create stereotypes and inaccuracies that are unlikely to be helpful in culturally diverse classrooms. To address these problems, it is imperative to incorporate ethical

frameworks and enhance the openness of AI application in learning practices (Vaccino-Salvadore, 2023; Bin-Hady et al., 2023).

The results of these studies are consistent in this regard and all come to the same conclusion, as emphasized in this review. One core problem of AI models, particularly in more sophisticated areas such as language learning, is their tendency to provide false and overly generic outputs. For example, these studies also show that current AI systems often provide incorrect or oversimplified answers to the points raised by learners. Therefore, advanced features are essential for improving language capabilities in order to better understand language and context (Qu & Wu, 2024).

As mentioned earlier, academic dishonesty mirrors the concerns identified in AI and education literature, with tools such as ChatGPT creating new obstacles to maintaining academic integrity. The capability of AI to quickly generate text facilitates plagiarism and allows students to bypass learning tasks. This aligns with the review's observation of the weakening of skills, supported by research signifying that excessive reliance on digital tools may transform students into passive recipients of knowledge (Barrot, 2023a).

The findings of this study largely reflect ongoing debates about how education functions, specifically AI, creeping into every aspect of our lives. Theoretically, AI tools can potentially enhance learning, and they must be integrated subtly so as not to unintentionally erode student autonomy and learner engagement. Even in a technology-enhanced learning environment, teacher guidance remains essential as it promotes active participation and critical thinking skills, which are likely to be compromised when learners rely too heavily on AI (Govindarajan & Christuraj, 2024).

Scholarly literature has thoroughly probed ethical issues surrounding privacy and bias in AI. Fairness and cultural sensitivity should be of utmost concern for educational entities, especially those attempting to transition into more digitally focused learning environments than ever before. These findings emphasize the need to implement ethical guidelines for using AI in education to ensure that these technologies are employed responsibly and equitably (Vaccino-Salvadore, 2023; Dehghani & Mashhadi, 2024).

Implications for Teachers

The results of this review suggest that the ChatGPT has the potential to improve language instruction through individualized feedback, learner engagement, and self-regulation. Despite possessing numerous advantageous attributes, ChatGPT exhibits certain limitations; the potential for AI misuse, academic dishonesty, and knowledge deterioration are areas that require further development. The ChatGPT should be regarded as a supplementary tool to facilitate instruction; it should not be relied upon for comprehensive teaching in a traditional manner. AI tools such as ChatGPT can be powerful in supporting particular learning elements such as improving writing or providing conversational practice. However, students should still be taught to engage a little with critical material, using it as an assistive tool rather than a solution. More importantly, teachers must train students in digital literacy and ethics to prevent misuse. This includes supporting learners to think critically about AI-generated content that may lead to plagiarism, and emphasizing the ethical considerations of using AI tools in their learning. In addition to potential growth, it is essential to ensure that students are not misplaced

in the digital practice of language learning and that some supporting producers avoid boycotts stemming from concerns about AI systems that exploit human-dependent processes.

Implications for Policymakers

AI in language teaching raises important policy issues including ethical issues concerning data privacy, bias, and access. Policymakers should develop clear ethical frameworks for using AI tools in education. The standard should cover student data collection, storage, and usage procedures that students are informed of for transparency and privacy protection. Moreover, there are ways in which AI-generated content can be scrutinized for bias, continuously preventing insensitivity or inaccuracies from being perpetuated. This includes ensuring that all students have access to technology regardless of socioeconomic background. Addressing the digital divide requires immediate attention from policymakers. This means funding digital infrastructure, especially in underserved regions, and equipping students with the tools they need to benefit from AI-driven learning platforms. Teachers should undergo complete professional development. Policymakers need back training programs that teach teachers the technical skills for using AI tools such as ChatGPT and how to integrate these technologies into their teaching practices.

Implications for Researchers

The upshot of the issues and prospects highlighted in this review emphasizes the potentially fruitful research pathways. One of the most substantial areas that need to be explored is the enduring effects of AI tools, such as ChatGPT, on language proficiency. While the direct benefits of writing, speaking, and vocabulary improvements can be observed easily, it is vital to understand if these gains are long-lasting and how they impact other language skills and critical thinking. Longitudinal research could provide more information on how AI affects colleges and universities in the long run. In addition, research is needed to tackle ethical questions such as privacy and data protection, and the problem of bias within AI. AI systems are open, culturally inclusive, and cater to the needs of diverse learners. Finally, researchers should discover the value of integrating AI into educational practice.

Limitations and Recommendations for Further Research

This study had some limitations that need to be acknowledged. First, this review was based on a few studies available on ChatGPT conducted between 2023 and 2024, which were only recently introduced in educational settings. Many of these studies were conducted over a short period, and the longstanding consequences of ChatGPT on language learning outcomes are typically unknown. Accordingly, the advantages and disadvantages of ChatGPT may not provide a complete picture of its lasting impact on the ELT process.

This is followed by the issue that study designs, methodologies, and participant demographics varied widely across the reviewed literature. This variety of qualitative, quantitative, and mixed-methods studies probably reduced the coherence and comparability of the results. The variability in educational settings, student levels, and cultural contexts represented across the included studies further limits the generalizability of the findings. Cultural, institutional, and technological factors likely influenced participants' experiences;

however, these variables were not consistently considered, which may have introduced possible bias into the results.

Likewise, some studies have relied on self-reported data, which has raised doubts about its source of benefits and obstacles. Self-reported measurements are often biased, principally regarding participants' interpretations of their learning advancement and interaction with the ChatGPT. These studies depend on inferences because there are no unbiased, standardized assessments that can indicate gained language skills or developed critical thinking and tests suitable for specific academic performance outcomes.

Considering these limitations, some important suggestions for further research are proposed. Firstly, it is overbearing to carry out longitudinal studies to examine the long-term implications of ChatGPT on the language teaching-learning process. Such studies should evaluate whether the instant gains observed, such as enhanced vocabulary acquisition, improved writing skills, and heightened engagement, are upheld over a prolonged period, and how the utilization of ChatGPT influences learners' general language proficiency and independence in the long run. Additionally, it is crucial to thoroughly explore the long-term drawbacks of excessive reliance on AI tools, including reduced critical thinking and problem-solving abilities.

Future research should address ethics in AI specifically applied to educational settings. In addition to the technical and systemic aspects mentioned, exploring what this means in practice is vital to reducing biased content emerging from AI tools such as ChatGPT, which allows for safe outputs that use culturally aware questions. The same can be said about privacy and data security. Although these concerns have often been described in the literature, they have rarely been equally addressed. Future studies could focus on identifying practices to protect student data when using AI tools in classroom settings.

The next step is to explore how ChatGPT can be integrated into the different aspects of education. It is important to research how AI can be integrated smoothly with traditional teaching methods to enhance learner engagement and encourage critical thinking and language proficiency development. Moreover, research that investigates the role of teachers in regulating AI tools and what kind of teacher professional development will be needed to ensure that it is deployed most effectively could help inform how best to take advantage of AI in education. For AI-driven instruction, teacher training programs enable teachers to integrate them into pedagogies, fostering active learning and student autonomy.

Conclusion

This review demonstrates that ChatGPT has considerable potential as an educational aid, especially for feedback personalization, learner engagement, and self-directed learning. Its user-friendliness, accessibility, and capacity to deliver instant and adaptive feedback have been persistently acknowledged as noteworthy benefits that can enhance language learning results. Nevertheless, these benefits are balanced by several significant challenges, including academic misconduct, overreliance on AI, and skill erosion. Moreover, ethical concerns regarding data safety, privacy, and AI bias highlight the need for careful and up-to-date implementation.

This study shows the importance of deliberate and systematic introduction of AI to educational contexts. While ChatGPT can automate other tasks to supplement traditional language teaching and assist learners in self-study, it is not intended as a substitute in the

absence of teachers who are necessary for proper pedagogy. Instead, teachers must be kept at the center of the learning experience. AI should aim not to take away from human instruction, but rather to facilitate it, with a particular focus on cognitive pedagogy. In addition, an essential need for deploying AI tools responsibly and effectively is the promotion of digital literacy together with ethical sensibilities among learners, which can help reduce risks, including, but not limited to, academic integrity violation or unintended misuse.

The barriers identified in this study require a concerted approach among teachers, policymakers, and researchers. Teachers could do this through a methodology that must be implemented to minimize the risks of over-relying on AI to reinforce learning and interrupt it, enhancing critical thinking (proactive) and proactive learning. First, policymakers must establish ethics guidelines for using AI in education to address privacy concerns and ensure data integrity and bias validation for all outcomes derived from AI. Second, AI researchers are asked to undertake more profound work on the sustainability of such language learning tools based on ChatGPTs, or to tackle pedagogical and ethical issues emerging from deploying these technologies.

Although potentially transformative in language teaching, ChatGPT is a tool that comes with it up and down. If other associated obstacles are addressed, and the tool is streamlined, it can be an effective adjunct to language teaching for students and teachers. We hope to harness the power of teachers, policymakers, and researchers coming together — for these communities will come from different contexts in terms of their experience levels with advanced AI technologies, such as ChatGPT – so that AI augments and does not replace this novel backdrop, strengthening instead of weakening what it means to learn today.

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References

Abdullah, M., Madain, A., & Jararweh, Y. (2022). *ChatGPT: Fundamentals, applications and social impacts*. In *2022 Ninth International Conference on Social Networks Analysis, Management and Security (SNAMS)* (pp. 1-8). IEEE. https://doi.org/10.1109/snams58071.2022.10062688

Adiguzel, T., Kaya, M., & Cansu, F. (2023). Revolutionizing education with AI: Exploring the transformative potential of ChatGPT. *Contemporary Educational Technology, 15*(3), ep429. https://doi.org/10.30935/cedtech/13152

Ahmad, S., Rahmat, M., Mubarik, M., Alam, M., & Hyder, S. (2021). Artificial intelligence and its role in education. *Sustainability, 13*(22), 12902. https://doi.org/10.3390/su132212902

Al-khresheh, M. H. (2024). Bridging technology and pedagogy from a global lens: Teachers' perspectives on integrating ChatGPT in English language teaching. *Computers and Education: Artificial Intelligence*, *6*, 100218. https://doi.org/10.1016/j.caeai.2024.100218

Alm, A., & Watanabe, Y. (2023). Integrating ChatGPT in language education: A Freirean perspective. *Iranian Journal of Language Teaching Research*, *11*(3), 19-30. https://doi.org/10.30466/ijltr.2023.121404

Asemani, C. A. (2024). Cheating with ChatGPT: The relationship between learner autonomy, engagement with AI for learning, and Russian (L2) learners' attitudes towards ChatGPT as a learning tool. (Master's thesis, The University of Arizona).

Barrot, J. S. (2023a). Using ChatGPT for second language writing: Pitfalls and potentials. *Assessing Writing*, *57*, 100745. https://doi.org/10.1016/j.asw.2023.100745

Barrot, J. S. (2023b). ChatGPT as a language learning tool: An emerging technology report. *Technology Knowledge and Learning*, *29*(2), 1151–1156. https://doi.org/10.1007/s10758-023-09711-4

Bin-Hady, W. R. A., Al-Kadi, A., Hazaea, A., & Ali, J. K. M. (2023). Exploring the dimensions of ChatGPT in English language learning: a global perspective. *Library Hi Tech*. Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/lht-05-2023-0200

Cai, Q., Lin, Y., & Yu, Z. (2023). Factors influencing learner attitudes towards ChatGPT-assisted language learning in higher education. *International Journal of Human-Computer Interaction, 39*, 1–15. https://doi.org/10.1080/10447318.2023.2261725

Carroll, C., & Booth, A. (2015). Quality assessment of qualitative evidence for systematic review and synthesis: Is it meaningful, and if so, how should it be performed? *Research Synthesis Methods*, *6*(2), 149-154.

Chinonso, O. E., Theresa, A. M. E., & Aduke, T. C. (2023). ChatGPT for teaching, learning and research: prospects and challenges. *Global Academic Journal of Humanities and Social Sciences*, *5*(02), 33–40. https://doi.org/10.36348/gajhss.2023.v05i02.001

Crompton, H., & Burke, D. (2023). Artificial intelligence in higher education: the state of the field. *International Journal of Educational Technology in Higher Education*, *20*(1), 1-22. https://doi.org/10.1186/s41239-023-00392-8

Dehghani, H., & Mashhadi, A. (2024). Exploring Iranian English as a foreign language teachers' acceptance of ChatGPT in English language teaching: Extending the technology acceptance model. *Education and Information Technologies, 0*(0), 1-22. https://doi.org/10.1007/s10639-024-12660-9

Govindarajan, R., & Christuraj, G. (2024). Opportunities and challenges of using ChatGPT in the ELT scenario of Utas, Nizwa, Oman. *Journal of Teaching English for Specific and Academic Purposes*, 11(3), 593-605. https://doi.org/10.22190/jtesap230529046g

Grubaugh, S., Levitt, G., & Deever, D. (2023). Harnessing AI to power constructivist learning: An evolution in educational methodologies. *Journal of Effective Teaching Methods, 1*(3), 81-83. https://doi.org/10.59652/jetm.v1i3.43

Gyawali, Y., & Mehandroo, M. (2022). Artificial intelligence in English language teaching: Navigating the future with emerging perspectives. *Journal of Language and Linguistics in Society, 2*(6), 21–27. https://doi.org/10.55529/jlls.26.21.27

Halaweh, M. (2023). ChatGPT in education: Strategies for responsible implementation. *Contemporary Educational Technology*, *15*(2), ep421. https://doi.org/10.30935/cedtech/13036

Haleem, A., Javaid, M., & Singh, R. P. (2022). An era of ChatGPT as a significant futuristic support tool: A study on features, abilities, and challenges. *BenchCouncil Transactions on Benchmarks Standards and Evaluations*, *2*(4), 100089. https://doi.org/10.1016/j.tbench.2023.100089

Hamal, O., Faddouli, N., Harouni, M., & Lu, J. (2022). Artificial intelligence in education. *Sustainability, 14(*5), 2862. https://doi.org/10.3390/su14052862

Han, J., Yoo, H., Kim, Y., Myung, J., Kim, M., Lim, H., Kim, J., Lee, T. Y., Hong, H., Ahn, S. Y., & Oh, A. (2023). *RECIPE: How to integrate ChatGPT into EFL writing education.*In *Proceedings of the Tenth ACM Conference on Learning@ Scale* (pp. 416-420). https://doi.org/10.1145/3573051.3596200

Harris, J. D., Quatman, C. E., Manring, M. M., Siston, R. A., & Flanigan, D. C. (2014). How to write a systematic review. *The American Journal of Sports Medicine*, *42*(11), 2761-2768

Hockly, N. (2023). Artificial intelligence in English language teaching: The good, the bad and the ugly. *RELC Journal, 54*(2), 445-451. https://doi.org/10.1177/00336882231168504

Karataş, F., Abedi, F. Y., Gunyel, F. O., Karadeniz, D., & Kuzgun, Y. (2024). Incorporating AI in foreign language education: An investigation into ChatGPT's effect on foreign language learners. *Education and Information Technologies,* 1-24. https://doi.org/10.1007/s10639-024-12574-6

Kim, S., Shim, J., & Shim, J. (2023). A Study on the utilization of openAI ChatGPT as a second language learning tool. *Journal of Multimedia Information System*, *10*(1), 79–88. https://doi.org/10.33851/jmis.2023.10.1.79

Kohnke, L., Moorhouse, B. L., & Zou, D. (2023). ChatGPT for language teaching and learning. *RELC Journal*, *54*(2), 537–550. https://doi.org/10.1177/00336882231162868

Kritt, D., & Budwig, N. (2022). The future of constructivist education. *Human Development*, 66, 295 - 309. https://doi.org/10.1159/000526275

Li, B., Wang, C., Bonk, C. J., & Kou, X. (2024). Exploring inventions in self-directed language learning with generative AI: Implementations and perspectives of YouTube content creators. *TechTrends*, *68*(4), 803–819. https://doi.org/10.1007/s11528-024-00960-3

Li, H., & Wang, Y. (2023). *The Empowerment and Impact of ChatGPT Technology on Foreign Language Education in Colleges and Universities*. In *Proceedings of the 2023 6th International Conference on Educational Technology Management* (pp. 29-34). https://doi.org/10.1145/3637907.3637950

Mabuan, R. A. (2024). ChatGPT and ELT: Exploring teachers' voices. *International Journal of Technology in Education*, *7*(1), 128–153. https://doi.org/10.46328/ijte.523

Margolis, A. (2020). Zone of proximal development, scaffolding and teaching practice. *Cultural-Historical Psychology, 16*(3), 15-26. https://doi.org/10.17759/chp.2020160303

Meline, T. (2006). Selecting studies for systemic review: Inclusion and exclusion criteria. *Contemporary Issues in Communication Science and Disorders*, *33*(Spring), 21–27. https://doi.org/10.1044/cicsd_33_s_21

Meniado, J.C. (2023). The Impact of ChatGPT on English language teaching, learning, and assessment: A rapid review of literature. *Arab World English Journal, 14* (4). 3-18. https://dx.doi.org/10.24093/awej/vol14no4.1

Mutammimah, H., Rejeki, S., Kustini, S., & Amelia, R. (2024). Understanding teachers' perspective towards ChatGPT acceptance in English language teaching. *International Journal of Technology in Education*, *7*(2), 290–307. https://doi.org/10.46328/ijte.656

Niyozov, N., Bijanov, A., Ganiyev, S., & Kurbonova, R. (2023). The pedagogical principles and effectiveness of utilizing ChatGPT for language learning. *E3S Web of Conferences*, *461*, 01093. https://doi.org/10.1051/e3sconf/202346101093

Nugroho, A., Putro, N. H. P. S., & Syamsi, K. (2023). The potentials of ChatGPT for language learning: Unpacking its benefits and limitations. *Register Journal*, *16*(2), 224–247. https://doi.org/10.18326/register.v16i2.224-247

Pati, D., & Lorusso, L. N. (2018). How to write a systematic review of the literature. *HERD: Health Environments Research & Design Journal*, *11*(1), 15-30.

Puntambekar, S. (2021). Distributed Scaffolding: Scaffolding students in classroom environments. *Educational Psychology Review, 34*(1), 451-472. https://doi.org/10.1007/s10648-021-09636-3.

Qu, K., & Wu, X. (2024). ChatGPT as a CALL tool in language education: A study of hedonic motivation adoption models in English learning environments. *Education and Information Technologies,* 1-33. https://doi.org/10.1007/s10639-024-12598-y

Rukiati, E., Wicaksono, J., Taufan, G., & Suharsono, D. (2023). AI on learning English: Application, benefit, and threat. *Journal of Language, Communication, and Tourism, 1*(2), 32-40. https://doi.org/10.25047/jlct.v1i2.3967.

Shaikh, S., Yayilgan, S. Y., Klimova, B., & Pikhart, M. (2023). Assessing the usability of ChatGPT for formal English language learning. *European Journal of Investigation in Health Psychology and Education*, *13*(9), 1937–1960. https://doi.org/10.3390/ejihpe13090140

Solak, E. (2024). Revolutionizing language learning: How ChatGPT and AI are changing the way we learn languages. *International Journal of Technology in Education*, *7*(2), 353–372. https://doi.org/10.46328/ijte.732

Stasser, T. (2023). ELT in the digital age: We have come a long way. *Arbeiten aus Anglistik und Amerikanistik, 48*(1). https://doi.org/10.24053/aaa-2023-0006

Thadphoothon, J. (2022). ELT in the age of artificial intelligence (AI): Working with machines. *Journal of NELTA, 27*(1-2), 202. https://doi.org/10.3126/nelta.v27i1-2.53203

Tulasi, L., & Rao, C. (2023). Integration of AI-Technologies into ELT: A brief study. *Journal for Research Scholars and Professionals of English Language Teaching, 7*(38). https://doi.org/10.54850/jrspelt.7.38.003

Vaccino-Salvadore, S. (2023). Exploring the ethical dimensions of using ChatGPT in language learning and beyond. *Languages*, *8*(3), 191. https://doi.org/10.3390/languages8030191

Xiao, Y., & Zhi, Y. (2023). An exploratory study of EFL learners' use of ChatGPT for language learning tasks: Experience and perceptions. *Languages*, *8*(3), 212. https://doi.org/10.3390/languages8030212

Xue, Z. (2023). Exploring Vygotsky's Zone of Proximal Development in pedagogy: A critique of a learning event in the business/economics classroom. *International Journal of Education and Humanities*, *9*(3), 166-168. https://doi.org/10.54097/ijeh.v9i3.10506

Yildiz, T. A. (2023). The impact of ChatGPT on language learners' motivation. *Journal of Teacher Education and Lifelong Learning*, *5*(2), 582–597. https://doi.org/10.51535/tell.1314355

Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators? *International Journal of Educational Technology in Higher Education*, *16*(1), 1-27. https://doi.org/10.1186/s41239-019-0171-0

Zhai, X., Chu, X., Chai, C., Jong, M., Istenič, A., Spector, M., Liu, J., Yuan, J., & Li, Y. (2021). A review of artificial intelligence (AI) in education from 2010 to 2020. *Complexity, 2021*(1), 8812542. https://doi.org/10.1155/2021/8812542

Zhang, K., & Aslan, A. (2021). AI technologies for education: Recent research & future directions. *Computers and Education: Artificial Intelligence*, *2*, 100025. https://doi.org/10.1016/J.CAEAI.2021.100025