



ADVANTAGES AND DISADVANTAGES OF INTEGRATING AI TOOLS TO ENGLISH LANGUAGE TEACHING: SYSTEMATIC LITERATURE REVIEW

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Abstract

The integration of AI tools to English Language Teaching (ELT) has presented new opportunities, emerging as a potential tool for interactive and individualized learning. This review will explore the advantages and disadvantages of integrating AI tools to English Language Teaching by analyzing 50 peer-reviewed articles published between 2021 and 2025 from ERIC, JSTOR, SAGE Journals, and ScienceDirect databases. Through inclusion-exclusion criteria, 50 articles (25-Quantitative; 10 Qualitative; 15-Mixed-Method) were included for synthesis. The findings revealed that the advantages of integrating AI Tools in ELT are enhancing students' learning experiences, improving writing abilities, increasing students' motivation and engagement, and offering instant and personalized feedback. Academic integrity (plagiarism), inaccurate/generic responses, and over-reliance on AI tools are the disadvantages of integrating AI tools in ELT. AI tools offer numerous benefits that cater to individual student needs, learning styles and paces, fostering greater engagement and motivation. Despite promising advantages, the integration of AI in English Language Teaching presents several challenges. Teacher training and professional development are also crucial to ensure effective and ethical integration of AI in the classroom. Hence, the integration of AI tools to ELT emphasizes the significance of adopting innovative pedagogies, a student-centered approach, and certain ethical considerations.

Keywords: English language teaching; integration of AI tools

Abstrak

Integrasi alat AI ke Pengajaran Bahasa Inggris (ELT) telah menghadirkan peluang baru, muncul sebagai alat potensial untuk pembelajaran interaktif dan individual. Tinjauan ini akan mengeksplorasi kelebihan dan kekurangan integrasi alat AI ke Pengajaran Bahasa Inggris dengan menganalisis 50 artikel peer-review yang diterbitkan antara tahun 2021 dan 2025 dari basis data ERIC, JSTOR, SAGE Journals, dan ScienceDirect. Melalui kriteria inklusi-eksklusi, 50 artikel (25-Kuantitatif; 10 Kualitatif; 15-Metode Campuran) disertakan untuk sintesis. Temuan tersebut mengungkapkan bahwa keuntungan mengintegrasikan Alat AI dalam ELT adalah meningkatkan pengalaman belajar siswa, meningkatkan kemampuan menulis, meningkatkan motivasi dan keterlibatan siswa, dan menawarkan umpan balik yang instan dan personal. Integritas akademis (plagiarisme), respons yang tidak akurat/generik, dan terlalu bergantung pada alat AI adalah kerugian dari integrasi alat AI dalam ELT. Alat AI menawarkan banyak manfaat yang memenuhi kebutuhan siswa individu, gaya belajar dan kecepatan, mendorong keterlibatan dan motivasi yang lebih besar. Meskipun memiliki keuntungan yang menjanjikan, integrasi AI dalam Pengajaran Bahasa Inggris menghadirkan beberapa tantangan. Pelatihan guru dan pengembangan profesional

juga penting untuk memastikan integrasi AI yang efektif dan etis di kelas. Oleh karena itu, integrasi alat AI ke ELT menekankan pentingnya mengadopsi metode pedagogi inovatif, pendekatan yang berpusat pada siswa, dan pertimbangan etika tertentu.

Kata Kunci: pengajaran bahasa Inggris; integrasi alat AI

1. Introduction

A new pedagogical approach and learning environment have been sparked by the integration of AI in education, with implications for English Language Teaching (ELT) and other fields (Crompton & Burke, 2023). The performance of ChatGPT (OpenAI), a conversational agent that can have human-like interactions and provide interactive and individualized learning experiences, distinguishes out among AI resources (Kohnke, Moorhouse, & Zou, 2023). As AI continually evolves further, its benefits for boosting language training are widely known, especially for increasing interaction and participation in ELT. According to studies, ChatGPT is essential for real-time communication and personalized learning pathways because of its ability to deliver prompt, individualized feedback, which creates a learning environment which promotes active engagement and specialized instruction (Al-khresheh, 2024; Kim, Shim, & Shim, 2023). (Adiguzel, Kaya, & Cansu, 2023) support Zhang & Aslan's (2021) claim that AI tools have demonstrated transformative potential in transforming educational practices by emphasizing ChatGPT's beneficial uses in real-time interaction and personalized learning pathways. This technology offers an advanced instrument that greatly improves on typical teaching techniques by offering adaptive teaching strategies and real-time feedback through dialogue that flows naturally.

However, despite all these advantages, traditional ways of teaching languages have endured numerous challenges, including the need for immediate feedback, individualized learning strategies, and difficulties maintaining students' interest. The need for immediate feedback, individualized learning paths, and maintaining students' motivation are only a few of the obstacles encountered by traditional language teaching approaches (Yildriz, 2023). According to Niyozov, Bijanov, Ganiyev, & Kurbonova, (2023), ChatGPT overcomes these concerns by actively offering immediate time corrections, adjusting to each student's pace, and establishing entertaining conversational experiences that closely replicate natural language use. These attributes promote an atmosphere that is suitable to language acquisition (Kim et al., 2023). However, several kinds of studies have drawn attention to challenges with integrating AI into language instruction, such as dependability concerns as well as potential excessive reliance on AI-generated outputs, which might impact students' ability to think critically and express themselves (Abdullah, Nor, & Razib, 2022). In the study of (Ahmad, Rahmat, Mubarik, Alam, & Hyder, 2021), AI in education has advantages, but if it is not properly incorporated with human input, it might compromise students' autonomy. Furthermore, Zhai et al. (2021) emphasized how AI tools might lead students to become overly reliant on technology, which might affect long-term language retention even if they provide benefits in terms of motivation and engagement. However, it is still challenging to integrate ChatGPT into language instruction (Abdullah et al., 2022; Halaweh, 2023).

Several frameworks serve as the theoretical foundation for incorporating AI into ELT. According to constructivist learning theory, students actively create their knowledge through participation. This process is made easier by AI tools such as ChatGPT, which enable real-time interaction where students can enhance their language skills and get immediate feedback. This engagement helps students internalize the language in meaningful ways by promoting the acquisition of knowledge in real-life situations (Grubaugh, Levitt, & Deever, 2023; Kritt & Budwig, 2022). Furthermore, since it highlights how essential it is to regulate the mental effort required for learning, cognitive load theory is significant. ChatGPT can lessen unnecessary cognitive load by providing adaptive feedback and pacing, allowing students to concentrate on certain activities and advance

without being overloaded with complex structures or excessive information (Cantos, Giler, & Magayanes, 2023).

In addition, to comprehend how ChatGPT facilitates language learning, Vygotsky's scaffolding theory—specifically, the Zone of Proximal Development—is necessary (Margolis, 2020). ChatGPT simulates the scaffolding process by providing appropriate levels of assistance and gradually reducing them as students gain proficiency, allowing students to advance through guided practice to higher levels of competency (Puntambekar, 2022). This is in line with AI's function as a facilitator, helping students finish assignments that they would not be able to do on their own at first. Xue (2021) investigated how scaffolding aids in closing the gap between what students can do on their own and with help, particularly when utilized with AI tools like ChatGPT. Further, the self-regulated learning framework is essential in AI-driven language training since tools like ChatGPT enable students to take charge of their education by setting objectives, monitoring their progress, and altering their strategy in response to immediate feedback. Self-regulation enables students to independently monitor their progress, evaluate their performance, and vary their learning style as necessary (Rukiati, Wicaksono, Taufan, Suharsono, & Jember, 2021).

AI-generated outputs' dependability and possible detrimental effects on human interaction during learning have drawn attention (Chinonso, Theresa, & Aduke, 2023). Teachers must also take preventative measures to minimize the potential drawbacks of using these tools, particularly their detrimental effects on teacher-student interactions and the possible over-reliance on content produced by AI rather than original content (Haleem, Javaid, & Singh, 2022). As an instance, a number of studies emphasize the need for teachers to figure out a balance between AI tools and traditional methods of instruction and warn about the potential loss of teacher-student interaction, which is essential for promoting language acquisition (Halaweh, 2023). According to Hamal, Faddouli, Harouni, & Lu, (2022), even if AI tools have many educational benefits, there is a risk of becoming overly reliant on AI. These factors make it necessary to use AI language models carefully, which means using tools like ChatGPT to supplement traditional teaching techniques (Tulasi & Rao, 2023).

Based on a review of recent studies, there is an increasing interest among scholars in the integration of AI into language learning, with a particular emphasis on the advantages of programs like ChatGPT, which increase learner engagement, offer individualized instruction, and offer real-time feedback (Gyawali & Mehandroo, 2022; Strasser, 2023; Thadphoothon, 2022). However, few studies have thoroughly investigated the challenges, such as the risks of relying too much on AI-generated outputs or any potential adverse effects on student autonomy. Therefore, the purpose of this specific literature review is to explore both the advantages and disadvantages of integrating AI tools to English Language Teaching (ELT). This study intends to provide suggestions for enhancing ELT teachers' classroom setup, curricula, and instructional techniques for ELT teachers based on this analysis. This review was guided by the following research questions: (1) What are the advantages of integrating AI tools to English Language Teaching? and (2) What are the disadvantages of integrating AI tools to English Language Teaching?

2. Method

The researcher conducted a systematic literature review to explore the advantages and disadvantages of integration of Artificial Intelligence (AI) in English Language Teaching (ELT). According to (Veginadu, Calache, Gussy, Pandian, & Masood, 2022), SLR defines a method of science that presents in detail how the research process unfolds. The primary purpose of SLR is to determine the research process of a study focusing on the advantages and disadvantages of integrating AI tools to English Language Teaching. In this context, SLR aims to specify specific criteria such as defining the research question, creating a search protocol, planning the research process, selecting studies, extracting data, and synthesizing data (Kraus, Breier, & Dasí-Rodríguez, 2020). One

prominent feature of SLR is its approach which collects findings from numerous studies related to the subject of the research, conducts a critical evaluation, synthesizes the findings, and presents them systematically (Dehkordi, Mazaheri, Ibrahim, Dalvand, & Gheshlagh, 2021). This approach is crucial to ensure the scientific and methodological accuracy of research. Following Okoli's (2015) guidelines, the review systematically identified, assessed, and synthesized relevant studies using specific criteria.

The researcher used the keyword "Integration of Artificial Intelligence (AI) in English Language Teaching" to locate relevant journal articles in the Educational Research Information Center (ERIC), JSTOR, Sage Journals, and ScienceDirect databases. These databases were prioritized for their credibility and comprehensive resources relevant to the topic, ensuring that all included journals are rigorously peer-reviewed. However, the initial search in ERIC with the keyword "Integration of Artificial Intelligence (AI) in English Language Education" returned a limited number of directly relevant articles. To address this, a secondary search with the keyword "Integration of Artificial Intelligence (AI)" was conducted yielding additional articles. Despite these efforts, the pool articles remained insufficient for a systematic review.

In the screening process, the researcher considered three (3) criteria for selecting journal articles: (a) journal publication type, (b) publication date/time frame, and (c) descriptors (Table 1). Specifically, only peer-reviewed journal articles with full text, published within the last five (5) years (2021-2025), were included. The search focused on studies related to Artificial Intelligence.

The researcher employed thematic analysis to examine the 50 journal articles. A thematic analysis, guided by Braun & Clarke (1990), was used to explore the advantages and disadvantages of artificial intelligence in English language teaching. The analysis followed the steps outlined by Braun & Clarke (1990): (a) familiarization with the data, (b) generating initial codes, (c) searching for themes, (d) reviewing themes, (e) defining and naming themes, and (f) producing the report. In this study, Microsoft Excel was used to plot information about Integration of Artificial Intelligence (AI) in English Language Education, particularly the key findings, conclusions, and recommendations. Based on the research questions, the data were coded and thematized by combining similar codes. These themes were then written up and discussed in the paper.

3. Results and Discussion

3.1 Advantages of Integrating AI Tools to English Language Teaching

Enhancing Students' Learning Experiences. Enhancing students' learning experiences through its capacity to produce and generate highly original output in response to human cues is one of the advantages of integrating AI tools to ELT (Chan & Hu, 2023; Dempere, Modugu, Hesham, & Ramasamy, 2023; Al-khreshah, 2024). While text-to-image AI generators like DALL-E and Stable Diffusion can be useful tools for teaching technical and artistic concepts in arts and design (Dehouche & Dehouche, 2020), text-to-text AI generators can help students, especially non-native English speakers (Chan & Lee, 2023), with their writing by allowing them to brainstorm ideas and receive feedback on their work through applications like ChatGPT (Atlas, 2022). Additionally, AI tools have been helpful research tools for idea generation, information synthesis, and summarization of large amounts of text data to assist researchers in data analysis and writing (Berg, 2024; Chan & Zhou, 2021), as well as helping to improve publication efficiency (Kitamura, 2023; Van Dis, Bollen, Van Rooij, Zuidema, & Bockting, 2023).

Improving Writing Abilities. Studies confirm that AI tools can be used to improve students' writing abilities. When working with students on their grammar and sentence structure, AI tools offer feedback sentences that can be used in context (Haggag, 2022; Kohnke et al., 2023; Xiao & Zhi, 2023). The tool's problem-solving assistance also helps students in resolving language learning problems more effectively, which reduces the need for teachers' instruction and frees up one-on-one

time for overly specialized online instruction (Han et al., 2023). Furthermore, students experienced improvements in grammar and vocabulary through AI tools (Karataş, Abedi, Ozek Gunyel, Karadeniz, & Kuzgun, 2024). Through the use of interviewing and class observation techniques, Yan (2023) discovered that AI tools improved students' writing abilities by providing interactive feedback on their works. It gave the students' suggestions on their writing structure, stylistic improvement ideas, and grammatical corrections. According to (Athanasopoulos, Manoli, Gouvi, Lavidas, & Komis, 2023), students were able to write an effective email with more diverse vocabulary, complex grammar and wider variety of language after interacting with AI tools.

Increasing Students' Motivation and Engagement. Studies revealed that AI tools increase students' engagement and motivation by facilitating interactive and engaging learning environments (Cai, Lin, & Yu, 2023). Through realistic conversations, the tool promotes engagement with the lesson material while improving real-world language usage and situational abilities. For example, tasks involving challenging procedures are best suited for much-needed repetition (Qu & Wu, 2024; Solak, 2024). By increasing students' involvement and an awareness of responsibility for their education, AI tools foster stronger relationships between teachers and students while offering benefits for individual learning. As students gain the ability to independently examine language, this promotes learner autonomy (Arhin, 2024). Additionally, as students engage in thoughtful discussions with AI, technology fosters the growth of critical thinking and analytical abilities. According to certain research, students have demonstrated a subtle ethical awareness and responsible use of AI, acknowledging the significance of technology (Vaccino-Salvadore, 2023).

Offering Instant and Personalized Feedback. AI tools' primary advantage is that it provides instantaneous and specific feedback, which is essential for language acquisition. Instant feedback allows students to correct errors immediately, encourages learning behaviors, and increases self-variables, such as grammar. In order to improve motivation and learning results, adaptive learning theories emphasize the necessity of customizing education to each student's specific needs (Meniado, 2023).

3.2 Disadvantages of Integrating AI Tools to English Language Teaching

Academic Integrity (Plagiarism). Although AI-generated response was primarily original and relevant to the topics, Kumar, (2023) study of AI-generated response to academic writing prompts reveals that it lacked the personal perspectives and inappropriate references that AI is typically unable to produce. Creating relevant prompts can be challenging for second language students since it requires a certain level of language proficiency, and relying too much on AI tools could undermine students' genuine efforts to become competent writers (Warschauer et al., 2023). Additionally, if such elements are included in the dataset used to train a model, the material generated by AI tools may be harmful, biased, or erroneous (Harrer, 2023). For instance, photos produced by AI may be used maliciously, such as for deepfakes, and may contain nudity or profanity (Maerten & Soydaner, 2024) because AI tools cannot evaluate the accuracy of content or identify whether the output, they produce contains errors or misleading, human monitoring is necessary when using them (Lubowitz, 2023). Furthermore, it is challenging to identify whether a particular piece of writing is the author's original work because most plagiarism checkers are unable to identify AI-generated output (Peres, Schreier, Schweidel, & Sorescu, 2023). In the context of AI-generated content, "it raises the question of what constitutes unethical behavior in academic writing including plagiarism, attribution, copyrights, and authorship"—an AI-plagiarism, according to (Ka & Chan, 2022). As Zhai (2022) warns, the reliability of assessment procedures, especially those involving written assignments, may be compromised by the utilization of text-to-text generators like ChatGPT.

Inaccurate/Generic Responses. One of the significant disadvantages is that it prompts language students to give inaccurate or generic answers, which may compromise the tool's ability to provide precise, contextually accurate feedback. Unfortunately, these concerns may not be

insurmountable. According to several studies, teachers may systematically address these concerns and successfully incorporate AI tools into language instruction with the right techniques and support. According to some investigations, these inaccuracies might reduce a tool's dependability, particularly when language students are not very proficient (Meniado, 2023; Nugroho, Pancoro, Putro, & Syamsi, 2023).

Over-reliance on AI Tools. Researchers frequently raise concern about the possible dangers of relying too much on AI tools. They emphasized that these are supplements, but not replacements, for active language acquisition. This over-reliance on AI carries the risk of passive learning, in which students accept the results of AI tools without question or further analysis and fail to critically interact with language activities (Alm & Watanabe, 2023). This is a concern since a lack of supervision can promote less in-depth learning methods, particularly in self-directed learning contexts. In these circumstances, students might merely engage with the content on a casual level without actively acquiring the language skills required for meaningful development (Li, Wang, Bonk, & Kou, 2024; Qu & Wu, 2024).

This systematic literature review, while comprehensive in its analysis of 50 peer-reviewed articles on the integration of AI tools in English Language Teaching (ELT), has certain limitations. The review focused solely on peer-reviewed journal articles with full text published within the last five (5) years (2021-2025). While this ensures recency and academic rigor, it might exclude valuable insights from other publication types (e.g., conference papers, books, dissertations) or studies published outside this timeframe that could offer a broader historical or contextual understanding of AI in ELT. Finally, while thematic analysis was employed, the interpretation of themes is inherently influenced by the researcher's perspective, which could introduce a degree of subjectivity.

Based on the findings and limitations of this study, several directions for future research are recommended. Firstly, future systematic literature reviews could expand their search parameters to include a wider range of publication types and databases beyond ERIC, JSTOR, SAGE Journals, and ScienceDirect, to capture a more exhaustive body of literature on AI in ELT. Secondly, research should delve deeper into specific pedagogical approaches and their interaction with AI tools, moving beyond a general overview to explore how AI can be most effectively integrated into various ELT methodologies. For instance, further studies could investigate the long-term impact of AI tool reliance on students' critical thinking and creative expression in language learning. Thirdly, there is a need for more empirical studies that directly compare the learning outcomes of students using AI-integrated ELT with those in traditional ELT settings, particularly focusing on quantitative measures of language proficiency and student engagement. Lastly, future research should explore the ethical implications of AI in ELT in greater detail, including strategies for promoting digital literacy and preventing issues such as AI-plagiarism and bias in AI-generated content. This includes developing rich frameworks for evaluating the accuracy and appropriateness of AI outputs in educational contexts.

4. Conclusion

The study focuses on the advantages and disadvantages of integration of Artificial Intelligence (AI) in English Language Education (ELT). The findings revealed that the advantages of integrating AI Tools in ELT are enhancing students' learning experiences, improving writing abilities, increasing students' motivation and engagement, and offering instant and personalized feedback. The disadvantages of integrating AI tools in ELT are academic integrity (plagiarism), inaccurate/generic responses, and over-reliance on AI tools.

The study emphasizes the significance of introducing AI to educational settings in a systematic and deliberate manner. AI tools are not meant to be used in place of teachers, who are essential for effective pedagogy, even though it can automate more/other tasks to support traditional language teaching and learning and help students with independent/self-regulated study. Rather, the

focus of the educational process should remain on the teachers. AI should support human instruction rather than replacing it, with a particular focus on cognitive pedagogy. Furthermore, encouraging students' digital literacy and ethical awareness is crucial for the responsible and successful use of AI tools. This can assist and reduce risks, such as failure to maintain academic integrity and/or unintentional misuse violation.

For future research, it would be beneficial to explore the long-term impact of AI integration on critical thinking and problem-solving skills in ELT beyond immediate language proficiency improvements. Additionally, investigating effective pedagogical strategies for mitigating the risks of AI over-reliance across diverse learning environments and technological access levels remains an area for further exploration and development.

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