

REVIEW



Generative AI as a Personal Tutor for English Language Learning: A Review of Benefits and Concerns

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Abstract: This review article aims to discuss the role of generative artificial intelligence (AI) as a personal tutor, particularly for learning English. Drawing on secondary sources, the article examines the potential of AI tools like Chat Generative Pre-Trained Transformer (ChatGPT) to function as personal tutors in English language learning. To achieve its aim, the article explores various functions of generative AI as a personal tutor. It then outlines key benefits of AI as a personal tutor in the context of English language teaching before briefly discussing three case studies of AI tools, such as ChatGPT, Gemini, and Khanmigo, which can be used as a personal tutor for language learning. The article then turns the discussion into several concerns associated with the use of generative AI as a personal tutor. Key concerns were related to academic dishonesty; false information; biased assessment; a lack of quality feedback and interaction; accessibility issues; psychological and social concerns; challenges concerning identity, diversity, and culture; teachers' and students' lack of preparedness; and AI overuse and overreliance. The article concludes with recommendations for policy, practice, and research. Specifically, it is suggested that teachers and students should experiment with AI tools and make use of AI technology to their advantage.

Keywords: Generative AI, ChatGPT, AI as a personal tutor, EFL, benefits, concerns

1. Introduction

Artificial intelligence (AI) refers to “the ability of machines, such as computers, to stimulate human intelligence” [1]. Generative AI utilizes AI technologies to create new content, such as texts, images, and videos, by learning from existing human-created data [2]. Originating with simple models like ELIZA in the mid-20th century, generative AI has evolved tremendously because of increased processing capacities and more diverse datasets [3]. Key advancements include enhancements in speech recognition technologies in the late 20th and early 21st centuries. The introduction of deep learning or machine learning [1] and neural networks in the 2010s marked an AI revolutionary phase that has led to many notable sophisticated developments in natural language processing, machine translation, robotics, speech recognition, and computer vision [4, 5].

Before the rise of large language models (LLMs), including Chat Generative Pre-Trained Transformer (ChatGPT), Llama 3, Claude, and Gemini. English language learning and teaching were already benefiting from technological advancements in areas such as intelligent tutoring systems (ITS), computer-assisted language learning (CALL), mobile-assisted language learning, multimedia language learning, e-learning, and technology-enhanced language learning (TELL). In the web-based era, there are hundreds of web-

based software and mobile apps developed for English language learning. Among these, some of the most notable are Mango Languages (released in 2007), Babbel (2008), Busuu (2008), Memrise (2010), Duolingo (2012), and HelloTalk (2012). Moreover, with the increased popularity of the internet, some of the most popular massive open online courses platforms, including Udacity (2012), Coursera (2012), edX (2012), Khan Academy (2012), FutureLearn (2013), and NovoEd (2013), were also developed to offer comprehensive courses on a variety of subjects, including English language learning.

Recent developments in AI, particularly with models like ChatGPT and ChatGPT-4o, have remarkably influenced English language teaching (ELT) by offering tools for personalization, real-time feedback, human-like conversations, and visual experiences [6]. The advent of other LLMs, such as Google's Gemini, Google AI Studio, Google NotebookLM, DeepSeek, Microsoft Copilot, Meta's LLaMA 3, Anthropic's Claude, and Apple Intelligence, has further expanded AI's capabilities and impact. So far, these AI models have pushed the boundaries of creativity and analysis and set the stage for advanced applications in education, including English language education [7–9].

Among the various LLMs, ChatGPT, developed by OpenAI, is credited as one of the leading AI tools. The latest iteration of chatting, the GPT o1 model series, was initially released as “o1 preview” and “o1-mini” on September 12, 2024, followed by the full version on December 5, 2024. The key functionalities of the

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ol model include enhanced reasoning abilities, multimodal input processing, and improved coding and debugging [10]. Tested at its preview stage, it is found that challenges such as slower response times, limited access, and ethical considerations persist. However, the widely available ChatGPT-4o, introduced in May 2024, has brought massive enhancements that can greatly benefit English language teaching and learning [6]. ChatGPT-4o's key features include enhanced multimodal capabilities that can be used for richer interactions through text, voice, and visual inputs [11]. These new capabilities make ChatGPT-4o ideal for translating visual texts and facilitating voice-driven conversations with improved performance and faster response times. Moreover, the advanced reasoning abilities and multilingual support that come with this new iteration extend its utility across different language contexts. For example, the integration of audio and visual recognition is particularly useful in recognizing and responding to non-verbal cues in language learning. These new features may make ChatGPT-4o the center of attention as a personal AI tutor [6]. With their advanced capabilities, these AI tools can be used as personal tutors [12–14].

Personal tutoring is defined variably across academic contexts, but it commonly refers to academic staff members dedicated to supporting students in achieving their educational, professional, and personal goals. Personal tutoring is grounded in the principle of individualized learning, designed to help individual learners improve their skills, abilities, and potential while staying motivated and focused on their objectives [15]. What this means is that generative AI can be useful in providing personalized, adaptive learning experiences through its complex algorithms and machine learning systems. These systems analyze student responses to optimize learning outcomes and employ natural language processing for engaging, conversational interactions that mimic human tutoring [16, 17]. For example, cognitive tutoring demonstrates this by adjusting to learners' cognitive levels and tailoring feedback and task difficulty to enhance educational efficacy [18].

In the ELT field, the application of AI for personalized learning is poised to change how English language teaching and learning are conducted [5, 6]. In other words, AI can leverage machine learning and natural language processing to create a motivating experience for personalized, engaging, and efficient learning [8, 19]. For example, ChatGPT can address the ever-changing proficiency levels of English language learners by providing instant feedback and aiding continuous improvement, which is essential in English as a Foreign Language (EFL) contexts [5, 20, 21]. Furthermore, AI-driven tutoring systems can help manage the imbalance between the demand for language learning and the availability of resources, enhancing the efficiency of both teaching and learning processes [22].

Within this context, this review article explores the role of AI as a personal tutor in ELT contexts. It aims to examine how generative AI can function as a personal tutor for English language learning. The article begins by discussing the functions of generative AI for personalized learning before examining the benefits of AI as a personal tutor. It then highlights case studies of three AI-driven tools that can potentially be used as personal tutors. It also discusses key concerns regarding the use of AI as a personalized learning tool. The article concludes with recommendations for optimizing the use of generative AI in ELT and suggestions for future research on AI-enhanced education to revolutionize personalized learning driven by AI-powered tools.

It is important to note that this article employed a qualitative research design based on secondary data analysis to explore the roles, benefits, and challenges of AI-powered tools as personal tutors in

Table 1
Functions of generative AI as a personal tutor in education

No.	Functions of generative AI as a personal tutor	Sources
1	Dialogue-based tutor	[16]
2	Cognitive tutor	[18]
3	Example-based tutor	[23]
4	Speech recognition-based tutor	[24]
5	Grammar and writing tutor	[25]
6	Reading comprehension tutor	[26]
7	Vocabulary tutor	[27]
8	Collaborative learning tutor	[28]

ELT contexts. Secondary data were gathered from academic journals, case studies, and reports on AI applications in education. The analysis aims to synthesize existing knowledge and identify gaps in the use of generative AI in ELT contexts.

2. Functions of Generative AI as a Personal Tutor in Education

Table 1 shows eight well-acknowledged functions for which AI can serve as personal tutors. In so many ways, AI technologies, such as ChatGPT and Gemini, can function as personal tutors in a variety of forms and can customize learning experiences that meet the specific needs of individual learners. One of the functions of generative AI is a dialogue-based tutor. This function uses automated systems to foster interactive, conversational learning environments that closely mirror human responsiveness, effectively simulating one-on-one tutoring sessions [16, 17]. Another function of AI is as a cognitive tutor [18], which can further improve the inquiry-based learning experience by adjusting to the unique cognitive abilities of every student, offering feedback, and adjusting content difficulty in real time. This function can significantly boost learning outcomes in thinking skills [29]. In addition, generative AI can function as an example-based tutor that can generate contextually relevant examples [23]. In other words, this function helps students grasp complex concepts by connecting lessons to real-world examples, making them more accessible and understandable.

Speech recognition-based tutoring is another function of AI technologies that specialize in language acquisition in areas such as assisting in pronunciation and fluency through real-time feedback and leveraging advanced speech recognition technologies to correct verbal inputs [24]. Generative AI can also serve as a grammar and writing tutor by analyzing and providing feedback on grammar, style, and structure, guiding students toward more polished and effective writing practices [25]. AI can also be used as a reading comprehension tutor by adapting content and questions based on learners' reading levels, which could improve comprehension and retention [26]. It can also be used as a vocabulary tutor [27]. For example, ChatGPT offers a range of features to enhance English vocabulary learning, including introducing new words in contexts, teaching games and quizzes, providing synonyms and antonyms, personalizing responses based on learners' current knowledge, and boosting retention capacity. Lastly, generative AI can function as a collaborative learning tutor. With this role, AI can assist in managing and optimizing group learning with the goal of increasing collaboration and providing support [28].

3. Benefits of Generative AI as a Personal Tutor in ELT

The benefits of using generative AI as a personal tutor in English learning contexts have been well-documented, indicating significant benefits of generative AI as a personal tutor for English language learning. These benefits are summarized in Table 2. No doubt, over the last two decades, generative AI has stimulated a remarkable change in how teachers and students can reinforce personalized learning experiences in ELT contexts [5, 30].

According to Chen et al. [31], for example, AI chatbots could greatly enhance the learning experience through immediate feedback and interactive engagement anytime and anywhere. Moybeka et al. [19] found in their mixed-methods study, which examined the influence of AI on motivation among EFL students, that AI could significantly boost intrinsic motivation, enhance self-efficacy, and facilitate personal learning plans. Mohamed [8] examined the effectiveness of ChatGPT as a personal tutor, emphasizing its ability to deliver immediate feedback, which is a great tool for learning English. Similarly, Nkambou et al. [17] described how the AI chatbot “Ellie” could boost students’ engagement and facilitate interactive conversation practice in English as a Second Language settings. Moreover, Harry [20] demonstrated how ITS could enhance engagement and aid in language acquisition as they could provide adaptive learning experiences to meet individual student styles. Thus, based on these studies, generative AI can offer a lot of benefits for English language learners who use it as a personal tutor.

With the rise of AI use in EFL contexts, there is an increasing number of studies showing that ChatGPT, one of the leading AI tools, has had a considerable impact on students’ language skill improvement and learning motivation [32–34]. ChatGPT was also found to reduce learning anxiety in language learning environments [35] and improve writing efficacy [36, 37]. It could also help improve speaking skills by immersing users in simulated conversations with different situations [38], changing responses based on learners’ skill levels [39], and giving real-time feedback for improvement [40].

Generative AI, such as ChatGPT, can also offer immediate feedback on syntax and vocabulary [41], help learners refine their texts

by suggesting alternative word choices and correcting grammatical errors [42], and improve written communication skills [43]. Gayed et al. [44] assessed how an AI-driven writing aid, called AI KAKU, influenced EFL students’ lexical diversity and fluency in writing. They found that the tool could improve the syntactic complexity and overall fluency of students’ writing, indicating potential benefits of the AI tool for language learners who need structured writing support. Likewise, Sol et al. [45] discussed how AI-powered chatbots like ChatGPT could be used to enhance academic writing for non-native English speakers. They argued that AI-powered chatbots could provide real-time assistance in brainstorming, structuring, polishing texts, and offering grammatical feedback.

Moreover, research has shown that generative AI like ChatGPT could adapt difficult texts based on learners’ skill levels [39], which could offer notes and questions within the text that can help learners become more interested and understand the text better [46]. AI tools, especially ChatGPT, can also expose learners to a wide range of accents and dialogues through audio simulations, which could improve their listening skills [47]. They can also be used to enhance listening comprehension by mimicking real-world interactions and diverse linguistic environments [48]. In addition, generative AI could aid grammar learning by providing explanations and corrections [49], which could help learners understand complex grammatical rules through interactive exercises and contextual examples.

AI tools like ChatGPT have also been found to help students learn new words by using them in real-life situations [50]. For example, by adding new words to sentences that sound like everyday conversations or situations that are important to students, ChatGPT could help them remember and use new words in real life. AI could also analyze learners’ speech patterns in real time [11] and offer targeted feedback to improve clarity and reduce accents [51]. It can also utilize advanced speech recognition technologies to improve students’ pronunciation skills [52]. Moreover, AI could also assist in cultural understanding. When AI integrates cultural contexts into language exercises, it helps learners understand idiomatic expressions and cultural knowledge [53]. This, in turn, improves their ability to use English in ways that are appropriate and meaningful within different cultural settings [54].

Shoukat et al. [55] described AI not just as a tool, but as a kind of responsive and adaptive tutor. Pérez-Ortiz et al. [56] also showed how generative AI can personalize and scale lifelong learning solutions using adaptive learning technologies and ITS to increase efficiency and engagement. Similarly, Mhlanga [57] suggested using ChatGPT to personalize learning by adapting information to individual requirements and encouraging continuous education by engaging learners in ongoing, interactive discussions. Poquet and De Laat [58] stated that AI embedded in common devices can influence personal learning and decision-making. These common strategies may move lifetime learning toward human growth and skill development. These advances suggest that generative AI used as personal tutors can improve English language acquisition by providing personalized, interesting, and efficient learning experiences. However, generative AI as a personal tutor needs an empirical and longitudinal study to understand its effectiveness and long-term effects in ELT contexts.

4. Case Studies of Generative AI as a Personal Tutor

The integration of computer software into English language learning as a learning tool has gained traction since the 1980s and 1990s, marked by the early stages of CALL and multimedia

Table 2
Benefits of generative AI as a personal tutor in ELT

No.	Benefits of generative AI as a personal tutor in ELT
1	Boost motivation and confidence as well as reduce learning anxiety
2	Summarize complex texts and gather relevant information efficiently
3	Offer immediate feedback on syntax and vocabulary
4	Improve speaking fluency, confidence, and pronunciation
5	Analyze speech and offer feedback to improve clarity and accent
6	Provide corrections and explanations for complex grammatical rules
7	Adapt text complexity to enhance engagement and comprehension
8	Improve vocabulary learning in context to enhance retention
9	Incorporate cultural contexts into learning materials
10	Enhance lifelong learning in ELT contexts

programs like Learn to Speak English, English Plus, Rosetta Stone, Transparent Language, and Tell Me More [59]. By the 2000s, web-based platforms such as Duolingo and other ITS emerged, which have further improved personalized and adaptive learning experiences [60, 61]. Today, the evolution in this field continues, with AI technologies, such as ChatGPT and Google's Gemini, making a considerable impact on English language teaching and learning.

4.1. ChatGPT

As an advanced AI tool, ChatGPT offers a number of advantages for language learning, such as providing a responsive, interactive conversational platform that allows learners to practice and enhance their English skills at any time and place, making it an important resource for continuous learning outside the classroom [62, 63]. Beyond its ability to respond to queries, ChatGPT can facilitate natural conversations in English, significantly improving learners' language proficiency by engaging them in meaningful dialogue to practice fluency, expand vocabulary, and refine grammatical skills. This active engagement can promote critical thinking and real-time responses, essential for effective language learning [64]. The latest enhancements in ChatGPT-4o further advance this AI tool's capability by improving its understanding of language nuances and its ability to handle diverse dialects and accents, making it an excellent tool for practicing conversational English [6]. These features provide immediate, contextually relevant feedback that significantly benefits EFL students' learning curves [6]. ChatGPT's regular updates and evolving algorithms greatly enhance the English learning experience with its multimodal inputs, such as texts, audio, and videos. These enhancements help support learners at every stage of their language development and in every area of language domains, including reading, listening, speaking, and writing [6].

4.2. Gemini

Gemini, developed by Google, is a multimodal generative AI tool that has the potential to transform English language teaching and learning [65]. Google's Gemini has many characteristics that set it apart from other AI tools. These include impressive picture, audio, video, and text recognition capabilities [66]. In addition to having advanced comprehension and reasoning abilities in every domain, it also possesses strong general capacities across modalities [66]. Gemini has many features that are advantageous for education; for example, it can be used as a study partner for individualized instruction [65], as it is a tool that can assist in locating clear, educational answers to queries about any subjects that are customized to meet the needs and comprehension of users. Additionally, it can provide targeted support by tailoring its explanations to learners' subjects, learning styles, and levels [66, 67]. Anh studied the potential use of Gemini for English learning in addressing English learning challenges among Food Technology students at Thu Dau Mot University [68]. The study used surveys to collect the data and found that Gemini can be used to improve vocabulary, grammar, and pronunciation with real-time feedback and personalized learning. Its Vietnamese-friendly interface helps learners overcome shyness while improving reading comprehension, listening, and speaking skills in a flexible, non-judgmental environment.

4.3. Khanmigo

Though still in its beta stage using ChatGPT, Khanmigo AI, developed by the educational nonprofit Khan Academy, marks a

notable advancement in AI-powered personal tutoring for education. Unlike other AI tools like ChatGPT, which often provide direct answers, Khanmigo can encourage learners to discover solutions independently [69]. This method is commonly used to deepen understanding and promote active learning, discovery, and critical thinking in ELT contexts [70, 71]. When integrated with Khan Academy's extensive content library, Khanmigo can provide customized support across subjects such as language arts, math, science, the humanities, and coding. So far, it has earned high ratings from Common Sense Media for its ethical design for safety and responsible AI use in education [72]. However, there is a notable lack of scholarly research on Khanmigo's effectiveness as a tutoring system. For ELT contexts, further studies are needed to assess their educational impact in a range of age groups, language skills, and contexts. Such studies would support the advantages of Khanmigo and direct its advancement as a revolutionary personal tutoring system.

5. Concerns Related to the Use of Generative AI as a Personal Tutor

Despite their potential and usefulness for English language teaching and learning, particularly in terms of serving as a personal tutor, AI-powered tools such as ChatGPT and others also present several challenges and concerns to users. These concerns are summarized in Table 3 and discussed below.

5.1. Academic dishonesty

While AI-powered tools like ChatGPT offer a number of educational benefits, they also pose several challenges in the education context [63]. First, there is a potential ethical issue regarding academic dishonesty, as students might use AI to bypass learning processes, potentially violating integrity standards [6, 73]. There is also a risk of plagiarism and the misuse of intellectual property, as these systems may replicate content without proper attribution, risking copyright infringement and the loss of original academic contributions [74]. Moreover, AI systems can introduce privacy and security risks, alongside ethical issues such as discrimination and the spread of misinformation, which can harm users and mislead public discourse [38, 75]. The rapid adoption of AI in education necessitates a balanced approach that considers these ethical challenges against the backdrop of AI's benefits to make sure that student welfare and educational integrity remain a priority [76–78].

Table 3
A summary of concerns about generative AI as a personal tutor

No.	Concerns about generative AI as a personal tutor
1	Academic dishonesty
2	False information
3	Biased assessment
4	A lack of quality feedback and authentic interaction
5	Accessibility issues
6	Psychological and social concerns
7	Identity, diversity, and culture challenges
8	Teachers and students' lack of preparedness
9	AI overuse and overreliance

5.2. False information

Recently, there has been a considerable amount of concern over the possibility that AI technologies could provide false or untrue information, which could have detrimental effects [79]. As a result, students and teachers could run the danger of using false information generated by this cutting-edge application due to ChatGPT's basic limitations [63]. When it comes to this issue of integrating AI into education, one phenomenon that requires immediate attention is AI hallucination [6]. This concept refers to situations in which AI systems provide information that is false, misleading, illogical, or incorrect but appears to be legitimate; oddly, the term is used as an antonym to facts and faithfulness [80]. Further studies are needed to better understand how these phenomena are manifested and addressed in language education contexts.

5.3. Biased assessment

Assessment of students' work may become problematic with the introduction of AI-generated tools such as ChatGPT, as their use may lead to biased evaluation. It may be difficult to discern between ChatGPT's and humans' textual outputs because differentiating between a student's original writing and the responses produced by a chatbot application might be challenging [76, 80, 81]. For instance, when a student uses a chatbot application to get answers to their questions, it could be challenging for academic staff to evaluate the student's comprehension of the topic, as this is due to the possibility that the chatbot application's responses do not fairly represent the students' actual comprehension levels [76]. Hence, this should be taken into consideration to prevent biased assessment because it is conceivable that it could have a detrimental emotional impact on students and the reputation of educational institutions [63].

5.4. A lack of quality feedback and authentic interaction

Using AI as a personal tutor for English language teaching and learning introduces some notable concerns regarding the provision of quality feedback and authentic interactions. One important concern is the tendency of AI systems to offer generic corrections that overlook contextual and cultural diversity, which could limit their effectiveness in helping learners grasp idiomatic expressions and slang used in real-life conversations [82]. Moreover, AI often struggles with the complexities of fluency, pronunciation, sentence stress patterns, and intonations [14]. This limitation can impede learners' progress in enhancing their pronunciation skills effectively. When teaching grammar and writing, AI may fall short in delivering the detailed and personalized explanations necessary for learners to comprehend intricate language rules and apply them across different contexts, which often results in a superficial understanding of the language [83, 84].

5.5. Accessibility issues

The issue of accessibility also presents a challenge in the adoption of AI tools as personal tutors across different educational settings and could lead to a divide between developed and developing nations [85, 86]. Economic constraints and infrastructural deficits often limit access to online learning platforms such as Coursera, Duolingo, Preply, and Khanmigo. These issues further create a disparity in educational opportunities among students from various settings. For example, while ChatGPT may offer limited

free services, comprehensive access typically requires a premium subscription, which may be unaffordable for users in economically disadvantaged regions. In the same vein, Khanmigo's \$4 subscription requirement, although modest, can be prohibitive for users in lower-income countries, and it is only available in the United States at the moment. On another point, different national policies on internet accessibility and educational funding might further exacerbate these challenges [45].

5.6. Psychological and social concerns

The overuse of AI tools as personal tutors also raises some psychological and social concerns. Rayhan and Rayhan [87] highlighted the possible psychological effects of AI on individuals, including changes in social behavior and increased reliance on machines for decision-making, which could foster trust issues or fear. Ryff's framework [88] on psychological well-being outlines key dimensions such as self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. First, since self-acceptance is one of the core dimensions of well-being, overreliance on AI could be detrimental in a way that makes learners feel inadequate because it is difficult for them to accept themselves as a fully functioning person. Similarly, this could also affect their purpose in life; one reason being that it might cause people to wonder why they need to keep doing their job or seek to learn how to do their job, whatever it is, when at the end of the day, AI can perform the same thing too or even do it better with precision. Moreover, regarding autonomy, while AI makes students' lives a lot easier nowadays, it definitely comes with a price. Those generative machines could make students less autonomous, as they may rely too much on AI. This could be a serious concern, considering students lose one of the main goals of personal education (i.e., learning to be autonomous). We should encourage more research in this area, as exercising caution while using AI and studying its psychological impacts could be beneficial.

5.7. Identity, diversity, and cultural challenges

Using AI as a personal tutor, especially in EFL settings, raises some concerns about identity, diversity, and cultural challenges. In general, AI systems often fail to adequately accommodate the cultural and linguistic diversity of learners, as they typically rely on datasets predominantly derived from dominant language and cultural groups [89]. This can lead to a lack of personalized learning experiences and misunderstandings due to unrecognized cultural idioms and slang, which could lead to the potential perpetuation of cultural stereotypes [54]. Such issues can alienate students and negatively impact their self-esteem and cultural identity. Moreover, studies like Shoukat et al. [55] found that while AI chatbots could enhance English proficiency and learner motivation, they also revealed limitations in their response capabilities and adaptability to learners' linguistic repertoire. Therefore, it is important to develop AI tools that are not only technologically proficient but also culturally sensitive and inclusive for all students.

5.8. Teachers' and students' lack of preparedness

There is another key concern related to the lack of preparedness of both teachers and students, particularly when it comes to utilizing AI as personal tutors. Even more now, English teachers need to stay updated with continuous developments in educational technology and maintain a proactive attitude toward systematic instruction. However, research has indicated a notable deficiency in

technological literacy among educators, which could hinder effective AI integration [56, 57]. Students can also face their own set of challenges as they must adjust to the highly personalized learning environments and instantaneous feedback mechanisms that AI provides, often struggling with complex language concepts if English is a second language [58]. In other words, the shift to digital learning platforms requires students to develop new interactive skills to thrive in AI-enhanced educational settings [59]. Therefore, successfully leveraging AI tools like ChatGPT in education requires thorough training and practical experience to address these multifaceted challenges and ensure that both educators and learners are effectively equipped [30].

5.9. AI overuse and overreliance

AI overuse and overreliance are other concerns when it comes to using AI tools as personal tutors. Since ChatGPT is so convenient to produce as much content as students want, they might utilize it to create their work totally without applying critical thinking or decision-making abilities [60]. This is especially true for students working on last-minute tasks. As a result, an increased use of AI carries some disadvantages since people run the risk of becoming overly dependent on technology, which could impair their ability to think critically or cause their memory to deteriorate [64].

6. Conclusion and Recommendations

This article has examined the role of AI-powered tools as a personal tutor for English language education. It discussed the different functions of technology-enhanced personalized tutoring systems and highlighted the various benefits of generative AI as a personal tutor. The article also mentioned case studies of popular AI-powered tools that could be used as personal tutors and discussed concerns related to the use of AI tools for personal tutoring. The common functions of generative AI as personal tutors included its functions in terms of dialogue-based, cognitive, example-based, speech recognition-based, grammar and writing, reading comprehension, vocabulary, and collaborative learning tutoring.

Key benefits of generative AI were related to the fact that AI can boost motivation and confidence, reduce learning anxiety, summarize complex texts efficiently, provide immediate feedback, improve speaking fluency, analyze speech for clarity, offer grammar corrections, adapt text complexity, enhance vocabulary retention, incorporate cultural contexts, and support lifelong learning in ELT contexts. The article also discussed case studies of ChatGPT, Gemini, and Khanmigo that can be used as personal tutors to support English language learning. Key concerns discussed were related to academic dishonesty; false information; biased assessment; a lack of quality feedback and authentic interaction; accessibility issues; psychological and social concerns; identity, diversity, and culture challenges; teachers' and students' lack of preparedness; and AI overuse and overreliance.

To maximize the benefits of AI-powered tools used as personal tutors in ELT contexts, students should use these tools with caution to avoid overdependence on them. Thus, when utilizing or incorporating AI into their work, they should become critical and reflexive of their own personal experience and knowledge. By doing so, their decision-making and critical skills will not go in vain, as these are important skills when it comes to personalized learning. If they only use AI to generate essays or speech scripts to present when their teachers ask them to do it themselves, it could be detrimental to them because, by not doing it themselves, they are at risk of not developing the necessary knowledge, skills, and attitudes when it comes to

real-life tasks such as presentations or public speaking in English. In addition, they could use AI to practice the four macro skills, for example, speaking, with real-world scenarios generated by AI. For instance, an AI-powered language learning app could simulate a conversation with a virtual shopkeeper, helping students practice ordering food in a restaurant or asking for directions in a foreign city. Through real-time feedback and adaptive responses, AI could encourage learners to refine their pronunciation, improve fluency, and build confidence in their speaking abilities. This not only makes learning more engaging but also provides a safe space for students to practice without the fear of making mistakes in front of others.

To get the most out of generative AI as a personal tutor, EFL teachers and students should be encouraged to experiment with its application to ensure that the technology is used in an inclusive, egalitarian, transparent, and ethical manner. They should also create learning modules that integrate AI without entirely replacing human interaction. For example, an AI-powered tutor could provide personalized grammar exercises and instant feedback, but students would still participate in group discussions, peer reviews, or teacher-led activities to develop critical thinking and social communication skills. In a language class, AI might help students practice pronunciation by analyzing their speech, but real-life conversations with classmates and instructors would remain essential for building confidence and cultural understanding. By striking a balance between AI-driven learning and human connection, educators can create a rich, engaging environment that enhances student learning without diminishing the value of personal interaction. The goal is to balance the use of AI and the importance of human connection and interaction in language learning. Moreover, teachers, educational leaders, and other concerned stakeholders should work together to find mechanisms or tools that can effectively evaluate students' work to ensure assessment standards and avoid unfair learning evaluations. It is also recommended that the use of AI-powered tools, such as ChatGPT, be critically and empirically examined to provide a deep understanding of its benefits and drawbacks for teaching and learning purposes, as well as for academic purposes. It is also important to raise awareness of the consequences of deliberate or inadvertent academic misconduct. This can be done by introducing and implementing institutional policies that address potential academic misconduct resulting from AI use.

Furthermore, in academic writing, AI tools should only be used for brainstorming and outlining, not for writing complete research papers. In this respect, researchers should examine the effectiveness of AI-powered tools employed in earlier studies and test their applicability and usefulness. To fully realize the promise of AI-powered technologies, a clear understanding of their functions, benefits, limitations, and concerns is needed in order to build confidence in users and help them decide which tools to use and for which purposes.

At present, many educational institutions have plagiarism detection software, such as Turnitin, embedded in their learning management systems to detect if any students commit plagiarism in their work. This practice can be expanded to detect AI use to ensure students' works are not based entirely on AI-generated content. It is also important to provide training on AI use as a personal tutor to ensure students are equipped with the necessary knowledge and skills to utilize AI effectively and ethically. Additionally, training on AI and guidelines or materials on how to use AI should be made available to EFL teachers to help them navigate the complexity of integrating AI tools into English language instruction. To achieve this aim, the role and involvement of AI specialists or mentors may be essential to assist EFL professionals in creating AI-based activities. Encouraging EFL students to use AI for practice and feedback, rather than as a primary solution, is also a vital method for the

responsible use of AI. It can also help maintain their active involvement in the learning process, which can foster both the acquisition of language skills and the development of independent learning habits needed for long-term success in English language learning.

Equally important is the need to provide infrastructure that supports equitable access to AI, particularly in resource-deficient contexts, to ensure that teachers and students are able to access AI whenever they need it for their teaching and learning endeavors. In resource-limited schools, this might mean providing affordable internet access, shared devices, or offline AI applications that work without constant connectivity. For instance, a rural school with limited internet might use AI-driven educational software that allows students to download lessons and practice exercises while online and then continue learning offline. Teachers could receive training on how to integrate AI into their lessons, ensuring they can effectively use these tools to enhance student engagement. Without such infrastructure, AI's potential benefits could remain out of reach for many, deepening educational disparities rather than reducing them.

Given that the analysis in this article is based on secondary data, recommendations for future research are essential. First, research in AI-enhanced personal learning should prioritize investigating the role of AI in learning motivation, retention, and language skill development. Other areas of research focus should be on the ethical implications of AI integration by focusing on strategies to prevent academic dishonesty, reduce biased assessment, and promote independent learning skills. Longitudinal studies are particularly essential to assess the long-term impact of AI-powered tools used as personal tutors on learners and learning, particularly in terms of language proficiency, motivation, and engagement. Moreover, research should explore ways to enhance teachers' and students' preparedness for AI integration, bridge the digital divide to ensure equitable access to AI tools, and promote collaborative learning environments that balance personalized AI tutoring with social interaction. Finally, it is important to examine the motivation and impact of academic integrity policies to understand how academic leaders and concerned stakeholders perceive the role of such policies in promoting the ethical and responsible use of AI in English language education.

Ethical Statement

This study does not contain any studies with human or animal subjects performed by any of the authors.

Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

Author Contribution Statement

Samarnh Pang: Conceptualization, Investigation, Formal analysis, Writing – original draft, Writing – review & editing. **Engheang Nol:** Conceptualization, Investigation, Formal analysis, Writing – original draft, Writing – review & editing. **Kimkong Heng:** Conceptualization, Formal analysis, Writing – original draft, Writing – review & editing.

References

- [1] Du-Harpur, X., Watt, F. M., Luscombe, N. M., & Lynch, M. D. (2020). What is AI? Applications of artificial intelligence to dermatology. *British Journal of Dermatology*, 183(3), 423–430.
- [2] Brown, T., Mann, B., Ryder, N., Subbiah, M., Kaplan, J. D., Dhariwal, P., ... & Amodei, D. (2020). Language models are few-shot learners. *Advances in Neural Information Processing Systems*, 33, 1877–1901. <https://proceedings.neurips.cc/paper/2020/file/1457c0d6bfc4967418bfb8ac142f64a-Paper.pdf>
- [3] García-Peñalvo, F., & Vázquez-Ingelmo, A. (2023). What do we mean by GenAI? A systematic mapping of the evolution, trends, and techniques involved in generative AI. *International Journal of Interactive Multimedia and Artificial Intelligence*, 8(4), 7–16. <https://doi.org/10.9781/ijimai.2023.07.006>
- [4] Soori, M., Arezoo, B., & Dastres, R. (2023). Artificial intelligence, machine learning and deep learning in advanced robotics, a review. *Cognitive Robotics*, 3, 54–70. <https://doi.org/10.1016/j.cogr.2023.04.001>
- [5] Sol, K., & Heng, K. (2024). AI-powered chatbots as personalized academic writing assistants for non-native English speakers. In M. A. Peters, & R. Heraud (Eds.), *Encyclopedia of educational innovation* (pp. 1–5), Springer. https://doi.org/10.1007/978-981-13-2262-4_313-1
- [6] Pang, S., Nol, E., & Heng, K. (2024). ChatGPT-4o for English language teaching and learning: Features, applications, and future prospects. *Cambodian Journal of Educational Research*, 4(1), 35–56. <https://doi.org/10.62037/cjer.2024.04.01.03>
- [7] Lin, C. C., Huang, A. Y., & Lu, O. H. (2023). Artificial intelligence in intelligent tutoring systems toward sustainable education: A systematic review. *Smart Learning Environments*, 10(1), 41. <https://doi.org/10.1186/s40561-023-00260-y>
- [8] Mohamed, A. M. (2024). Exploring the potential of an AI-based Chatbot (ChatGPT) in enhancing English as a Foreign Language (EFL) teaching: Perceptions of EFL Faculty Members. *Education and Information Technologies*, 29(3), 3195–3217. <https://doi.org/10.1007/s10639-023-11917-z>
- [9] Tang, J., & Foley, J. (2022). A case study on the effectiveness of applying content and language integrated learning in an artificial intelligence English reading course. *Arab World English Journal*, 13(3), 236–253. <https://doi.org/10.24093/awej/vol13no3.15>
- [10] Tamsah, M. H., Jamal, A., Khalid, A., Tamsah, A. A., & Malki, K. H. (2024). OpenAI o1-preview vs. ChatGPT in healthcare: A new frontier in medical AI reasoning. *Cureus*, 16(10): e70640. <https://doi.org/10.7759/cureus.70640>
- [11] 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>
- [12] Chen, M., Liu, F., & Lee, Y. H. (2022). My tutor is an AI: The effects of involvement and tutor type on perceived quality, perceived credibility, and use intention. In H. Degen, & S. Ntoa (Eds.), *Artificial intelligence in HCI*. Springer. https://doi.org/10.1007/978-3-031-05643-7_15
- [13] Graefen, B., & Fazal, N. (2024). From chat bots to virtual tutors: An overview of Chat GPT's role in the future of education. *Archives of Pharmacy Practice*, 15(2), 43–52. <https://doi.org/10.51847/TOupjEDSX>
- [14] Kang, B. O., Jeon, H. B., & Lee, Y. K. (2024). AI-based language tutoring systems with end-to-end automatic speech

- recognition and proficiency evaluation. *ETRI Journal*, 46(1), 48–58. <https://doi.org/10.4218/etrij.2023-0322>
- [15] Mynott, G. (2016). Personal tutoring: positioning practice in relation to policy. *Innovations in Practice*, 10(2), 103–112. <https://doi.org/10.24377/LJMU.iip.vol10iss2article95>
- [16] Graesser, A. C., Wiemer-Hastings, K., Wiemer-Hastings, P., Kreuz, R., & Group, Tutoring Research. (1999). AutoTutor: A simulation of a human tutor. *Cognitive Systems Research*, 1(1), 35–51. [https://doi.org/10.1016/s1389-0417\(99\)00005-4](https://doi.org/10.1016/s1389-0417(99)00005-4)
- [17] Nkambou, R., Bourdeau, J., & Mizoguchi, R. (2010). Introduction: What are intelligent tutoring systems, and why this book? In R. Nkambou, J. Bourdeau, & R. Mizoguchi (Eds.), *Advances in intelligent tutoring systems. Studies in computational intelligence* (pp. 361–375). Springer. https://doi.org/10.1007/978-3-642-14363-2_1
- [18] Koedinger, K. R., & Corbett, A. (2006). Cognitive tutors: Technology bringing learning sciences to the classroom. In R. K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (pp. 135–168). Cambridge University Press.
- [19] Moybeka, A., Syariat, N., Tat, D., Mushthoza, D. A., Dewi, N. P. J. L., & Tineh, S. (2023). Artificial intelligence and English classroom: The implications of AI toward EFL students' motivation. *Edumaspol: Jurnal Pendidikan*, 7(2), 2444–2454. <https://doi.org/10.33487/edumaspol.v7i2.6669>
- [20] Harry, A. (2023). Role of AI in education. *Interdisciplinary Journal and Humanity*, 2(3), 260–268. <https://doi.org/10.58631/injury.v2i3.52>
- [21] Li, R. (2020). Using artificial intelligence in learning English as a foreign language: An examination of IELTS Liulishuo as an online platform. *Journal of Higher Education Research*, 1(2), 85–89. <https://doi.org/10.32629/jher.v1i2.178>
- [22] Hang, Y., Khan, S., Alharbi, A., & Nazir, S. (2024). Assessing English teaching linguistic and artificial intelligence for efficient learning using analytical hierarchy process and technique for order of preference by similarity to ideal solution. *Journal of Software: Evolution and Process*, 36(2), e2462. <https://doi.org/10.1002/smr.2462>
- [23] VanLehn, K. (2011). The relative effectiveness of human tutoring, intelligent tutoring systems, and other tutoring systems. *Educational Psychologist*, 46(4), 197–221. <https://doi.org/10.1080/00461520.2011.611369>
- [24] Cucchiari, C., Neri, A., & Strik, H. (2009). Oral proficiency training in Dutch L2: The contribution of ASR-based corrective feedback. *Speech Communication*, 51(10), 853–863. <https://doi.org/10.1016/j.specom.2009.03.003>
- [25] Burstein, J., Kukich, K., Wolff, S., Chi, L., & Chodorow, M. (2003). The e-rater scoring engine: Automated essay scoring with natural language processing. In M. D. Shermis, & J. Burstein (Eds.), *Automated essay scoring: A cross-disciplinary perspective* (pp. 113–121). Routledge.
- [26] McNamara, D. S., Levinstein, I. B., & Boonthum, C. (2004). iSTART: Interactive strategy training for active reading and thinking. *Behavior Research Methods, Instruments, & Computers*, 36(2), 222–233. <https://doi.org/10.3758/bf03195567>
- [27] Heilman, M., & Eskenazi, M. (2007). Application of automatic thesaurus extraction for computer generation of vocabulary questions. In *Workshop on Speech and Language Teaching in Education*, 65–68. ISCA Archive. <https://doi.org/10.21437/slate.2007-19>
- [28] Kumar, R., Rosé, C. P., Wang, Y. C., Joshi, M., & Robinson, A. (2007). Tutorial dialogue as adaptive collaborative learning support. *Frontiers in Artificial Intelligence and Applications*, 158, 383.
- [29] Muthmainnah, Ibna Seraj, P. M., & Oteir, I. (2022). Playing with AI to investigate human-computer interaction technology and improving critical thinking skills to pursue 21st century age. *Education Research International*, 2022(1), 1–17. <https://doi.org/10.1155/2022/6468995>
- [30] Jegede, O. O. (2024). Artificial intelligence and English language learning: Exploring the roles of AI-driven tools in personalizing learning and providing instant feedback. *Universal Library of Languages and Literatures*, 1(2), 6–19. <https://doi.org/10.70315/uloap.ullli.2024.0102002>
- [31] Chen, Y., Jensen, S., Albert, L. J., Gupta, S., & Lee, T. (2023). Artificial intelligence (AI) student assistants in the classroom: Designing chatbots to support student success. *Information Systems Frontiers*, 25(1), 161–182. <https://doi.org/10.1007/s10796-022-10291-4>
- [32] Arini, D. N., Hidayat, F., Winarti, A., & Rosalina, E. (2022). Artificial intelligence (AI)-based mobile learning in ELT for EFL learners: The implementation and learners' attitudes. *International Journal of Educational Studies in Social Sciences*, 2(2), 88–95. <https://doi.org/10.53402/ijesss.v2i2.40>
- [33] Tlili, A., Shehata, B., Adarkwah, M. A., Bozkurt, A., Hickey, D. T., Huang, R., & Agyemang, B. (2023). What if the devil is my guardian angel: ChatGPT as a case study of using chatbots in education. *Smart Learning Environments*, 10(1), 15. <https://doi.org/10.1186/s40561-023-00237-x>
- [34] Wei, L. (2023). Artificial intelligence in language instruction: Impact on English learning achievement, L2 motivation, and self-regulated learning. *Frontiers in Psychology*, 14, 1–14. <https://doi.org/10.3389/fpsyg.2023.1261955>
- [35] Chen, Y. C. (2024). Effects of technology-enhanced language learning on reducing EFL learners' public speaking anxiety. *Computer Assisted Language Learning*, 37(4), 789–813. <https://doi.org/10.1080/09588221.2022.2055083>
- [36] Marzuki, Widiati, U., Rusdin, D., Darwin, & Indrawati, I. (2023). The impact of AI writing tools on the content and organization of students' writing: EFL teachers' perspective. *Cogent Education*, 10(2), 1–17. <https://doi.org/10.1080/2331186x.2023.2236469>
- [37] Song, C., & Song, Y. (2023). Enhancing academic writing skills and motivation: assessing the efficacy of ChatGPT in AI-assisted language learning for EFL students. *Frontiers in Psychology*, 14, 1260843. <https://doi.org/10.3389/fpsyg.2023.1260843>
- [38] Huang, C., Zhang, Z., Mao, B., & Yao, X. (2022). An overview of artificial intelligence ethics. *IEEE Transactions on Artificial Intelligence*, 4(4), 799–819. <https://doi.org/10.1109/TAI.2022.3194503>
- [39] Carlson, M., Pack, A., & Escalante, J. (2023). Utilizing OpenAI's GPT-4 for written feedback. *TESOL Journal*, 759, e759. <https://doi.org/10.1002/tesj.759>
- [40] Zou, B., Du, Y., Wang, Z., Chen, J., & Zhang, W. (2023). An investigation into artificial intelligence speech evaluation programs with automatic feedback for developing EFL learners' speaking skills. *Sage Open*, 13(3), 21582440231193818. <https://doi.org/10.1177/21582440231193818>
- [41] Hwang, W. Y., Nurtantyan, R., Purba, S. W. D., Hariyanti, U., Indrihapsari, Y., & Surjono, H. D. (2023). AI and recognition technologies to facilitate English as foreign language writing for supporting personalization and contextualization in authentic

- contexts. *Journal of Educational Computing Research*, 61(5), 1008–1035. <https://doi.org/10.1177/07356331221137253>
- [42] Leacock, C., Gamon, M., Mejia, J. A., & Chodorow, M. (2022). *Automated grammatical error detection for language learners*. Germany: Springer Nature.
- [43] Rusmiyanto, R., Huriati, N., Fitriani, N., Tyas, N. K., Rofi'i, A., & Sari, M. N. (2023). The role of artificial intelligence (AI) in developing English language learner's communication skills. *Journal on Education*, 6(1), 750–757. <https://doi.org/10.31004/joe.v6i1.2990>
- [44] Gayed, J. M., Carlon, M. K. J., Oriola, A. M., & Cross, J. S. (2022). Exploring an AI-based writing Assistant's impact on English language learners. *Computers and Education: Artificial Intelligence*, 3, 100055. <https://doi.org/10.1016/j.caeai.2022.100055>
- [45] Sol, K., Heng, K., & Sok, S. (2024). Using AI in English language education: An exploration of Cambodian EFL university students' experiences, perceptions, and attitudes. *SSRN Preprint*. <https://doi.org/10.2139/ssrn.4687461>
- [46] Hidayat, M. T. (2024). Effectiveness of AI-based personalized reading platforms in enhancing reading comprehension. *Journal of Learning for Development*, 11(1), 115–125. <https://doi.org/10.56059/jl4d.v11i1.955>
- [47] Kuddus, K. (2022). Artificial intelligence in language learning: Practices and prospects. In A. Mire, S. Malik, & A. K. Tyagi (Eds.), *Advanced Analytics and Deep Learning Models* (pp. 1–17), Scrivener Publishing. <https://doi.org/10.1002/9781119792437.ch1>
- [48] Young, J. C., & Shishido, M. (2023). Investigating OpenAI's ChatGPT potentials in generating chatbot's dialogue for English as a foreign language learning. *International Journal of Advanced Computer Science and Applications*, 14(6), 65–72. <https://doi.org/10.14569/ijacsa.2023.0140607>
- [49] Hidayatullah, E. (2024). Evaluating the effectiveness of ChatGPT to improve English students' writing skills. *Humanities, Education, Applied Linguistics, and Language Teaching: Conference Series*, 1(1), 14–19. <https://doi.org/10.36597/heal.v1i1.1467>
- [50] Losi, R. V., Putra, E., Ali, N., & Dewi, A. S. (2024). Investigating artificial intelligence (AI) as a vocabulary learning tool: Students' perception to use ChatGPT. In *Proceeding International Conference on Religion, Science and Education*, 561–566.
- [51] Jinming, D. U., & Daniel, B. K. (2024). A systematic review of AI-powered chatbots in EFL speaking practice: Transforming language education. *Computers and Education: Artificial Intelligence*, 6(2024), 1–12. <https://doi.org/10.1016/j.caeai.2024.100230>
- [52] Gally, T. (2024). No longer only human: Language in the age of AI. *Komaba Journal of English Education*, 15, 27–37.
- [53] Koceva, V., Kuzmanovska, D., Vitanova-Ringaceva, A., & Ulanska, T. (2024). Using mythological idiomatic expressions in a foreign language classroom-bridging the past and the present. In *INTED2024 18th International Technology, Education and Development Conference, Proceedings*, 4351–4357.
- [54] Zheng, Y. D., & Stewart, N. (2024). Improving EFL students' cultural awareness: Reframing moral dilemmatic stories with ChatGPT. *Computers and Education: Artificial Intelligence*, 6, 1–13. <https://doi.org/10.1016/j.caeai.2024.100223>
- [55] Shoukat, W., Rizwan, N., & Khan, M. T. (2025). The role of artificial intelligence (AI) tutors in personalized learning: Benefits and challenges. *Journal of Social Signs Review*, 3(4), 1–13.
- [56] Perez-Ortiz, M., Dormann, C., Rogers, Y., Bulathwela, S., Kreitmayer, S., Yilmaz, E., ... & Shawe-Taylor, J. (2021). X5learn: A personalised learning companion at the intersection of AI and HCI. In *Companion Proceedings of the 26th International Conference on Intelligent User Interfaces*, 70–74. <https://doi.org/10.1145/3397482.3450721>
- [57] Mhlanga, D. (2023). Open AI in education, the responsible and ethical use of ChatGPT towards Lifelong learning. *SSRN Preprint*. <https://doi.org/10.2139/ssrn.4354422>
- [58] Poquet, O., & De Laat, M. (2021). Developing capabilities: Lifelong learning in the age of AI. *British Journal of Educational Technology*, 52(4), 1695–1708. <https://doi.org/10.1111/bjet.13123>
- [59] Chapelle, C. A. (2001). *Computer applications in second language acquisition: Foundations for teaching, testing, and research*. UK: Cambridge University Press.
- [60] Godwin-Jones, R. (2011). Emerging technologies: Autonomous language learning. *Language Learning & Technology*, 15(3), 4–11. <https://doi.org/10.1002/9781405198431.wbeal0365>
- [61] Hockly, N. (2015). Developments in online language learning. *ELT Journal*, 69(3), 308–313.
- [62] Rasul, T., Nair, S., Kalendra, D., Robin, M., de Oliveira Santini, F., Ladeira, W. J., ... & Heathcote, L. (2023). The role of ChatGPT in higher education: Benefits, challenges, and future research directions. *Journal of Applied Learning and Teaching*, 6(1), 41–56. <https://doi.org/10.37074/jalt.2023.6.1.29>
- [63] Sok, S., & Heng, K. (2023). ChatGPT for education and research: A review of benefits and risks. *Cambodian Journal of Educational Research*, 3(1), 110–121. <https://doi.org/10.62037/cjer.2023.03.01.06>
- [64] Bai, L., Liu, X., & Su, J. (2023). ChatGPT: The cognitive effects on learning and memory. *Brain-X*, 1(3), 1–9. <https://doi.org/10.1002/brx2.30>
- [65] Imran, M., & Almusharraf, N. (2024). Google Gemini as a next generation AI educational tool: A review of emerging educational technology. *Smart Learning Environments*, 11(1), 22.
- [66] Rane, N. (2024). Enhancing the quality of teaching and learning through ChatGPT and similar large language models: Challenges, future prospects, and ethical considerations in education. *TESOL and Technology Studies*, 5(1), 1–6. <https://doi.org/10.48185/tts.v5i1.1000>
- [67] Saeidnia, H. R. (2023). Welcome to the Gemini era: Google DeepMind and the information industry. *Library Hi Tech News*. Advance online publication. <https://doi.org/10.1108/LHTN-12-2023-0214>
- [68] Anh, N. P. D. (2024). Gemini Google: A potential tool for English learning. *Journal of Thu Dau Mot University*, 6(3), 386–396. <https://doi.org/10.37550/tdmu.ejs/2024.03.586>
- [69] Davis, R. O. (2024). Korean in-service teachers' perceptions of implementing artificial intelligence (AI) education for teaching in schools and their AI teacher training programs. *International Journal of Information and Education Technology*, 14(2), 214–219. <https://doi.org/10.18178/ijiet.2024.14.2.2042>
- [70] Wale, B. D., & Bishaw, K. S. (2020). Effects of using inquiry-based learning on EFL students' critical thinking skills. *Asian-Pacific Journal of Second and Foreign Language Education*, 5, 1–14. <https://doi.org/10.1186/s40862-020-00090-2>
- [71] Yuan, R., Liao, W., Wang, Z., Kong, J., & Zhang, Y. (2022). How do English-as-a-foreign-language (EFL) teachers perceive

- and engage with critical thinking: A systematic review from 2010 to 2020. *Thinking Skills and Creativity*, 43, 101002. <https://doi.org/10.1016/j.tsc.2022.101002>
- [72] Shetye, S. (2024). An evaluation of Khanmigo, a generative AI tool, as a computer-assisted language learning app. *Studies in Applied Linguistics and TESOL*, 24(1), 38–53. <https://doi.org/10.52214/salt.v24i1.12869>
- [73] Kumar, R., Eaton, S. E., Mindzak, M., & Morrison, R. (2023). Academic integrity and artificial intelligence: An overview. In S. E. Eaton (Ed.), *Handbook of academic integrity* (pp. 1–14). Springer. https://doi.org/10.1007/978-981-287-079-7_153-1
- [74] Van Dis, E. A. M., Bollen, J., Zuidema, W., Van Rooij, R., & Bockting, C. (2023). ChatGPT: Five priorities for research. *Nature*, 614(7947), 224–226. <https://doi.org/10.1038/d41586-023-00288-7>
- [75] Monteith, S., Glenn, T., Geddes, J. R., Whybrow, P. C., Achtyes, E., & Bauer, M. (2023). Artificial intelligence and increasing misinformation. *The British Journal of Psychiatry*, 224(2), 33–35. <https://doi.org/10.1192/bjp.2023.136>
- [76] Cotton, D. R., Cotton, P. A., & Shipway, J. R. (2023). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International*, 61(2), 228–239. <https://doi.org/10.1080/14703297.2023.2190148>
- [77] Shen, Y., Heacock, L., Elias, J., Hentel, K., Reig, B., Shih, G., & Moy, L. (2023). ChatGPT and other large language models are double-edged swords. *Radiology*, 307(2), 1–4. <https://doi.org/10.1148/radiol.230163>
- [78] Alawida, M., Mejri, S., Mehmood, A., Chikhaoui, B., & Isaac Abiodun, O. (2023). A comprehensive study of ChatGPT: Advancements, limitations, and ethical considerations in natural language processing and cybersecurity. *Information*, 14(8), 1–23. <https://doi.org/10.3390/info14080462>
- [79] Xie, Q., Schenck, E. J., Yang, H. S., Chen, Y., Peng, Y., & Wang, F. (2023). Faithful AI in medicine: A systematic review with large language models and beyond. *arXiv Preprint*: <https://doi.org/10.21203/rs.3.rs-3661764/v1>
- [80] Else, H. (2023). Abstracts written by ChatGPT fool scientists. *Nature*, 613(7944), 423–423. <https://doi.org/10.1038/d41586-023-00056-7>
- [81] Shiri, A. (2023). ChatGPT and academic integrity. *Information Matters*, 3(2), 1–5. *SSRN preprint*: <http://doi.org/10.2139/ssrn.4360052>
- [82] Zawacki-Richter, O., Marin, V. I., Bond, M., & Gou-verneur, 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>
- [83] Crompton, H., Edmett, A., Ichaporia, N., & Burke, D. (2024). AI and English language teaching: Affordances and challenges. *British Journal of Educational Technology*, 55(6), 2503–2529. <https://doi.org/10.1111/bjet.13460>
- [84] Zulkarnain, N. S., & Yunus, M. M. (2023). Primary teachers' perspectives on using artificial intelligence technology in English as a second language teaching and learning: A systematic review. *International Journal of Academic Research in Progressive Education and Development*, 12(2), 861–875. <http://doi.org/10.6007/IJARPED/v12-i2/17119>
- [85] Goldenthal, E., Park, J., Liu, S. X., Mieczkowski, H., & Hancock, J. T. (2021). Not all AI are equal: Exploring the accessibility of AI-mediated communication technology. *Computers in Human Behavior*, 125, 1–36. <https://doi.org/10.1016/j.chb.2021.106975>
- [86] Rodrigues, R. (2020). Legal and human rights issues of AI: Gaps, challenges and vulnerabilities. *Journal of Responsible Technology*, 4, 100005. <https://doi.org/10.1016/j.jrt.2020.100005>
- [87] Rayhan, S., & Rayhan, A. (2023). *The psychological impact of AI: Adapting to a world of smart machines*. 1–12. <http://doi.org/10.13140/RG.2.2.29902.64329/1>
- [88] Ryff, C. D. (1995). Psychological well-being in adult life. *Current Directions in Psychological Science*, 4(4), 99–104. <https://doi.org/10.1111/1467-8721.ep10772395>
- [89] Shams, R. A., Zowghi, D., & Bano, M. (2025). AI and the quest for diversity and inclusion: A systematic literature review. *AI and Ethics*, 5, 411–438. <https://doi.org/10.1007/s43681-023-00362-w>

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