
THE USE OF AI AND ITS EFFECTIVENESS IN ELT: A SYSTEMATIC REVIEW

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ABSTRAK

Penelitian ini bertujuan untuk mengidentifikasi pengertian Artificial Intelligence (AI) dan untuk mengetahui efektivitas penggunaan AI dalam Pengajaran Bahasa Inggris (ELT). Metode yang digunakan dalam penelitian ini adalah tinjauan sistematis yang menguraikan bagaimana penelitian dilakukan, termasuk definisi konseptual dan operasional dari variabel yang digunakan. Studi yang dipublikasikan dari tahun 2017 hingga 2023 di database ilmiah seperti Google Scholar, ERIC, dan Mendeley. Mayoritas siswa saat ini memiliki ponsel, yang dapat digunakan oleh para pendidik sebagai alat bantu dalam proses belajar mengajar, mengingat bahwa mengintegrasikan teknologi ke dalam kelas merupakan langkah strategis. Dengan menggunakan teknologi dan platform AI, para pendidik dapat membantu para siswa untuk mendapatkan pemahaman yang mendalam tentang berbagai budaya, terlibat dalam pertukaran lintas budaya yang bermakna, dan berkembang menjadi warga dunia yang aktif. Aplikasi pembelajaran bahasa yang digerakkan oleh AI menawarkan skalabilitas dan aksesibilitas yang tak tertandingi, mengatasi hambatan terhadap akses siswa dan menjangkau seluruh wilayah dan kesenjangan sosial ekonomi. Berdasarkan data yang diperoleh, dapat disimpulkan bahwa penggunaan AI dalam ELT sangat efektif. AI tidak hanya bermanfaat bagi pendidik, siswa, dan akademisi, tetapi juga berkontribusi pada penilaian. Selain itu, AI dapat membantu siswa mengembangkan kepekaan budaya, kompetensi lintas budaya, dan kesadaran global. Data yang digunakan dalam makalah ini berasal dari jurnal, buku, dan artikel yang berkaitan dengan teknologi, kecerdasan buatan, dan ELT dengan fokus pada lima publikasi terakhir.

Kata kunci: Kecerdasan Buatan, Efektivitas, Pengajaran Bahasa Inggris (ELT)

ABSTRACT

This research aims to identify the meaning of Artificial Intelligence (AI) and to know the effectiveness of using AI in English Language Teaching (ELT). The method employed in this study is a systematic review that elaborates on how the research was conducted, including conceptual and operational definitions of the variables used. Studies published from 2017 to 2023 in scientific databases such as Google Scholar, ERIC, and Mendeley. The majority of students nowadays possess smartphones, which educators can utilize as tools for teaching and learning processes, given that integrating technology into the classroom is a strategic move. By using AI technologies and platforms, educators can assist students in gaining a profound understanding of various cultures, engaging in meaningful cross-cultural exchanges, and evolving into engaged global citizens. AI-driven language learning applications offer unparalleled scalability and accessibility, overcoming barriers to student access and reaching out across regional and socioeconomic divides. Based on the data obtained, it can be concluded that the use of AI in ELT is highly effective. AI not only benefits educators, students, and academics but also contributes to assessment. Furthermore, AI can help students develop cultural sensitivity, cross-cultural competence, and global awareness. The data used in this paper comes from journals, books, and articles related to technology, artificial intelligence, and ELT with a focus on the last five publications.

Keywords: AI, Effectiveness, English Language Teaching (ELT)

INTRODUCTION

Technology is not new to Generation Z. They are used to technologies that are relatively new to previous generations, such as the widely used mobile communication systems. This generation includes students. This generation is influenced by and connected to the internet (Tarihoran et al., 2022). Technology plays an important role in education because of its ability to modify and enhance various parts of the learning experience. Adaptive learning systems and AI tools can adjust content and pace to fit each student's specific needs. Technology fosters seamless relationships between students and educators across geographic barriers. Online forums, Video Conferencing, and Collaboration Tools Improve communication and teamwork skills (Aggarwal, 2023).

Artificial Intelligence (AI) is a very broad branch of computer science that deals with developing intelligent computers capable of performing tasks that would normally require human intelligence (Slimi & Carballido, 2023). According to Talha Abdullah Sharadgah 2022, Artificial Intelligence (AI) is increasingly integrated into English Language Teaching (ELT) as a tool to improve the learning process and language teaching. The use of AI in ELT has been the subject of numerous systematic studies and reviews, aimed at understanding its effectiveness and potential in optimizing English language skills, translation, assessment, recognition, attitudes, and satisfaction.

English Language Learning (ELL) is at the intersection of global communication and educational advancement, with millions of people involved in the acquisition of English, for academic, professional, and personal reasons (Amro & Borup, 2019a). The creation of an English classroom model that uses artificial intelligence should be integrated with the English teaching and learning process. Language literacy and digital literacy are an excellent combination to enhance global competence. (Fitria, 2021).

The incorporation of AI technology into the ELL environment has the potential to address long-standing challenges, personalize the learning experience, and improve overall proficiency outcomes. However, the extent to which AI has been effectively used in ELL, its impact on learners, and the methodological approaches used in relevant studies remain areas of active inquiry (Weng & Chiu, 2023).

The purpose of this article is to find out the meaning of Artificial Intelligence (AI) and to find out how effective AI is in ELT. The method used in this article is a systematic review with a literature review. The steps taken by taking and collecting relevant data that already exist are then developed to be discussed in this article. The research question of this study is "What is AI & Is the Use of AI effective in ELT?"

Information technology (IT) is advancing so quickly in the digital age that educational institutions are compelled to employ mobile computing devices for instructional purposes. (Ahlquist & Endersby, 2017). A novel perspective on cognition known as artificial intelligence (AI) has a significant influence on language study. One of the main engines behind the 4.0 industrial revolution is artificial intelligence (AI), which facilitates learning and teaching in schools. It is the science of teaching robots to behave and think like sentient beings. Something personalized but not completely phony in the sense of being fake is referred to as "artificial". In addition, since "intelligence" is superior to real objects, it can take their place. The phrase "intelligence" is quite complicated. It encompasses a variety of manifestations, including consciousness, emotional awareness, self-knowledge, preparedness, and creativity. According to the dictionary, artificial intelligence (AI) is the capacity for understanding. Features of this behavior include applying information to condition the environment, learning from experience, and responding quickly in novel situations (Dr. Ir. Jamaaluddin, Indah Sulistyowati, ST., 2021).

Several key ideas are involved in artificial intelligence (AI), including natural language processing, machine learning, and neural networks (Raol & Ayyagari, 2019). Artificial intelligence (AI) has significantly changed many industries, most notably education. As a subfield of computer science and artificial intelligence (AI), machine learning aims to replicate human learning processes with increasing accuracy through the use of data and algorithms. In this instance, computers use the data that is provided to them to learn and produce models that can be utilized to forecast or act (Eriana & Zein, 2023).

The majority of students have cell phones these days. Students' daily lives cannot be divorced from their cell phones or smartphones. In other words, they are the generation that teachers are working with today—students who have grown up with computers and the Internet, referred to as "digital natives" or the "Net generation" (Ghafar et al., 2023a). People are primarily seeking new ways to raise their knowledge and understanding of mobile technology in non-school settings, which is

different from how the technology is used in schools, as the number of mobile devices owned rises. It implies that by enabling cooperative activities, mobile technology can support learning in both formal and informal environments. Given these circumstances, educators can use cell phones as tools for the teaching and learning processes, as integrating technology into the classroom is a smart strategy to employ (Arini et al., 2022a).

AI applications are now widely used in language education, opening up new possibilities for individualized and flexible instruction (Holmes et al., 2019). Wang and Hu argue that "AI technologies are currently used in English language teaching to support language learning, facilitate communication, and provide feedback to learners." (Abimanto & Mahendro, 2023). These days, technology and ELT (English Language Teaching) are almost inseparable. In the end, technological advancements impact ELT. The emergence of the AI era has inevitably led to changes in both the practice and understanding of ELT (Iskandar Yahya Arulampalam Kunaraj P.Chelvanathan, 2023). The development of digital platforms and technology has made it easier to teach and study English. You have the chance to improve your English now. Therefore, perhaps we don't need English teachers in the classroom or English education if machines can teach English. In tandem with the teaching and learning of English, an artificial intelligence-based English classroom model ought to be created. Digital and language proficiency work well together to improve global competency. One of the most widely spoken languages in the world having a systematized grammar is English. Because of this, teaching English to pupils as a second or foreign language (ESL/EFL) is never easy (Ghafar et al., 2023b). Thus, improvements in English teaching and learning can be effectively advanced through the application of artificial intelligence, machine learning, intelligent searching, and natural language processing. With the increasing use of technology in education, English Language Teaching in the context of artificial intelligence (AI) has swiftly changed. AI technology will play an increasingly important and significant role in English language instruction as it develops, giving teachers the tools they need to design more dynamic, effective, and student-centered learning environments (Lütge & Merse, 2021).

Applications for AI-driven language learning provide unmatched scalability and accessibility, removing obstacles to student access and outreach across regional and socioeconomic divides. Students can interact with English language resources at their speed thanks to AI-supported platforms that are accessible anywhere and at any time, which promotes sustainable learning outside of the classroom. Stated that the widespread use of mobile devices affects teaching and learning by enabling a more versatile environment in which students can learn and practice anywhere and anytime (Arini et al., 2022b). Theoretically, an AI-powered computer system is capable of performing tasks that typically need human intervention. (Russell & Norvig, 2016). A few aspects of human intelligence, such as visual perception, language comprehension, speech understanding, and decision-making, might be affected by artificial intelligence (Ghafar et al., 2023b).

However, there are considerations and difficulties involved with integrating AI into ELT. To guarantee fair and moral language with training, issues like algorithm bias worries about data privacy, and the role of teachers in an AI-driven learning environment must be properly addressed. Additionally, to fully harness AI's potential and incorporate it into their teaching methods, educators require sufficient assistance and training (Sharma et al., 2024). Artificial intelligence has a wide range of effects on English language instruction, providing previously unheard-of chances to improve instruction and give students more command over their English. Teachers can transform language instruction and equip students for success in a globally linked world by utilizing AI ethically and cooperatively.

METHOD

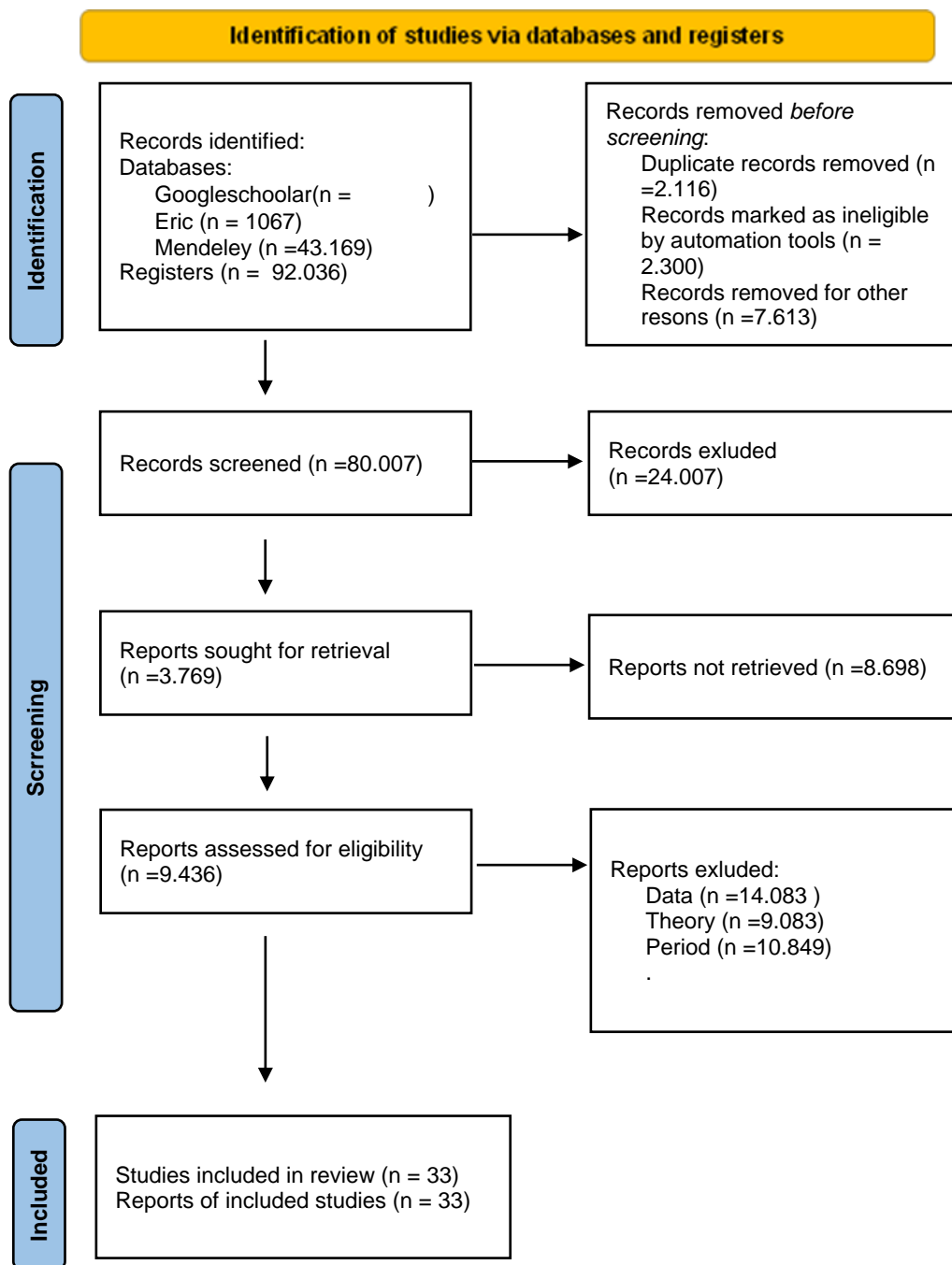
One feature of meta-analysis research is that the data already exists. Data is taken from the results of relevant studies that already exist and have been tested before, published scientifically on a particular topic, and related to the research question conducted.

According to Setiawan (2019), a literature review is all efforts made by researchers to obtain relevant and up-to-date information about the topic or problem they are researching. The type of writing used is a literature review study or literature study that focuses on writing results related to writing topics or variables.

Below are some various methods used in reviewing a paper as a research methodology. A variety of current literature review protocols are in use. All forms may be helpfully and properly

suitied to meet a given aim based on the approach required to accomplish the objective of the analysis (Snyder, 2019)

The data used in this paper comes from journals, books, and articles related to technology, artificial intelligence, and ELT with a focus on the last five publications. Studies published from 2017 to 2023 in scientific databases such as Google Scholar, ERIC, and Mendeley.



FINDING AND DISCUSSION

Artificial Intelligent

The majority of students have cell phones these days. Students' daily lives cannot be divorced from their cell phones or smartphones. In other words, they are the generation that teachers are working with today—students who have grown up with computers and the Internet, referred to as "digital natives" or the "Net generation" (Ghfar et al., 2023b). People are primarily seeking new ways to raise their knowledge and understanding of mobile technology in non-school settings, which is different from how the technology is used in schools, as the number of mobile devices owned rises. It implies that by enabling cooperative activities, mobile technology can support learning in both formal and informal environments. Given these circumstances, educators can use

cell phones as tools for the teaching and learning processes, as integrating technology into the classroom is a smart strategy to employ (Arini et al., 2022b).

The essence of intelligence is the principle of adapting to the environment while working with insufficient knowledge and resources. Accordingly, an intelligent system should rely on finite processing capacity, work in real-time, be open to unexpected tasks, and learn from experience. (Wang, 2019). In computer science, artificial intelligence (AI) is the study and development of intelligent hardware and software. It is the science of teaching robots to behave and think like sentient beings. Something personalized but not completely phony in the sense of being fake is referred to as "artificial". In addition, since "intelligence" is superior to real objects, it can take their place. The phrase "intelligence" is quite complicated. It encompasses a variety of manifestations, including consciousness, emotional awareness, self-knowledge, preparedness, and creativity.

AI systems are promoted as having the ability to address social justice problems. Personalized tutoring systems are expected to help reduce the educational achievement gap by providing individualized support. For instance, students who require additional assistance can receive personalized tutoring from AI tutors that adapt to their needs, both in school and at home, to enhance their academic performance. This is discussed in Nesta's report on the future of education. The report suggests that AI has the potential to address barriers to social mobility. However, they also point out that under certain conditions, AI in education can contribute to inequality and hinder social mobility. They do not, however, provide any solutions or further explanation of what these specific conditions may be. (Ghafar et al., 2023b).

AI-assisted devices are a sub-section of computer-assisted language learning for foreign language learning (CALL). AI provides a wide variety of developments in foreign language education with the exponential development in natural language processing and technologies to cope with big data (Book) English language teaching (ELT) is considered an integral educational aim in terms of improving the potential of students to interact internationally (Pedro et al., 2019).

There are moral ramifications for AI-assisted language learning, especially when it comes to learner liberty and data privacy (Amro & Borup, 2019b). Teachers have a delicate responsibility to protect students' privacy while using student data to customize instruction (Amro & Borup, 2019b). The influence of AI technology has also raised awareness of the importance of instructors in the classroom and the potential for working with children who have special needs. Teachers need ongoing professional development to successfully incorporate AI into their lesson plans. To apply AI tools, evaluate data, and create learning techniques that improve the instructions given by AI, teachers must comprehend the required digital learning resources (Ali et al., 2023).

English Language Teaching (ELT)

ELT 3.0 is ELT with AI, which includes principles (theory), hardware, software, and practice. English language teaching (ELT) can benefit from advances in AI. Without AI, ELT may become flawed. This situation will probably not happen immediately, but rather gradually. The acceptance of AI seems inevitable; it is only a matter of time before AI surpasses general human intelligence, often known as Artificial General Intelligence (AGI). Language and communication are fundamental components of general intelligence. (Thadphoothon, 2022).

According to (Anis & Scholar, 2023), the use of Artificial Intelligence (AI) in English language teaching (ELT) is not only limited to language acquisition, but also to the development of cultural sensitivity, cross-cultural competence, and global awareness among students. Artificial intelligence (AI) provides cutting-edge tools and platforms that facilitate successful cross-cultural contacts and rich information on other cultures and perspectives. As they interact with AI-powered resources, learners are exposed to authentic cultural materials, interactive language exchanges, and virtual encounters that simulate in-person multicultural interactions (Karakas, 2023). Learners can develop empathy, adaptability, and awareness of a variety of cultural practices and perspectives. In addition, cultural content is integrated into the curriculum of AI language learning systems, which exposes students to authentic resources such as films, books, and articles from other cultures.

The platform's AI algorithm ensures a personalized and culturally relevant learning experience by tailoring the selection of materials to suit users' interests and language proficiency levels. AI helps promote intercultural competence by improving communication and cooperation among students from different cultural backgrounds. Learners can communicate with peers or native speakers from different cultures using AI-powered chatbots and language exchange platforms, facilitating learning intercultural and linguistic interactions.

This AI-powered technology offers rapid feedback, cultural insights, and guidance, which promotes effective cross-cultural communication skills. In addition, by connecting students to communities and resources around the world, AI technology helps raise global awareness. The AI-powered system allows students to join online communities, participate in international initiatives, and collaborate with students around the world. AI in ELT classrooms is critical to developing cultural sensitivity, intercultural competence, and global awareness. Using AI technologies and platforms, educators can help students gain an in-depth understanding of different cultures, participate in meaningful cross-cultural exchanges, and become engaged global citizens. (Kumar Betal, 2023) The successful integration of AI in ELT should be checked regularly. Teachers and curriculum designers must gather input from students and peers, analyze learning outcome data, and think about how AI technology affects teaching and learning procedures. They will be able to make informed decisions about the ongoing development of AI integration in ELT thanks to this iterative process of behavior and reflection.

It should come as no surprise that students use technology to improve their English proficiency among other aspects of their education. CALL has a substantial positive impact on kids' writing abilities. Because CALL's 21st-century learning approach makes teaching and learning English, particularly writing, easier, both teachers and students gain from it (Tarihoran, Nafan; Alhourani et al., 2022). Teachers should be encouraged to use various AI platforms and technologies that can help them implement inclusive practices. This allows students to take responsibility for their learning journey and improve their English skills individually. AI-powered systems and applications can assess student performance data and recommend future lessons, provide real-time feedback on students' pronunciation, grammar, and vocabulary, and provide interactive exercises that allow students to engage with the material in new ways. AI in ELT aims to improve language learning efficiency, engagement, and accessibility for students around the world. (Rukiati et al., 2023). Adaptive learning systems powered by AI, for example, can provide individualized training and adaptation for students with diverse learning styles and abilities.

AI can help with English language acquisition by recommending relevant materials. To assess plagiarism in student work, programs such as Turnitin, quetext, smallseotools, plagiarism detectors, and plagiarism checkers are available (Idham et al., 2024). AI can create an individualized learning experience, depending on student preferences. Individual interests. (Subiyantoro et al., 2023). Practitioners who apply AI to professional development activities such as collaborative learning and sharing best practices. Online conferences and forums can be a place for educators to engage, share knowledge, and learn from each other's successes and failures in using AI to improve inclusion.

In addition to professional development, instructors must need ongoing support and mentoring to use AI technology for inclusion. Teachers can overcome the challenges of integrating AI by gaining access to resources, professional support, and opportunities for reflection and critique. This will ensure that AI is successfully used to help diverse groups of students. It is also important to address any concerns or shortcomings teachers may have when adopting AI in the classroom. Participating in forums and open conversations allows teachers to ask questions, share ideas, and collaborate to address ethical difficulties, prejudices, and privacy concerns associated with AI technology.

According to (Hamid et al., 2022a), AI technologies such as image recognition, prediction systems, and computer vision make teaching and evaluation more convenient. Student assessment is an important aspect of the educational process. Teachers in classrooms generally spend a long time completing assessment tasks such as question preparation, grading, performance evaluation, and test paper analysis. AI expands the range of teaching assessment methods, makes the evaluation process more scientific, and improves the accuracy of evaluation results. AI technology can create exam questions and correct assignments and test papers automatically. Teachers routinely move homework and exam materials. Teachers are prone to fatigue when correcting homework and exams for a long time. As a result, certain errors will occur when correcting test papers after a long period. Image recognition technology frees teachers from the tedious task of correcting homework and printing (Hockly, 2023), and the error rate is minimal. AI technology is used to correct test papers and detect blank or suspicious papers, thus saving teachers time (Hamid et al., 2022b).

CONCLUSION

Artificial Intelligence (AI) is increasingly integrated into English Language Teaching (ELT) as a tool to improve the learning process and language teaching. The use of AI in ELT has been the subject of numerous systematic studies and reviews, aimed at understanding its effectiveness and potential in optimizing English language skills, translation, assessment, recognition, attitudes, and satisfaction. The use of Artificial Intelligence (AI) in English language teaching (ELT) is not only limited to language acquisition, but also to the development of cultural sensitivity, cross-cultural competence, and global awareness among students.

English Language Learning (ELL) is at the intersection of global communication and educational advancement, with millions of people involved in the acquisition of English, for academic, professional, and personal reasons (Faria et al., 2019). The method section includes conceptual and operational definitions of the variables used in the study. The development of digital platforms and technology has made it easier to teach and study English. Applications for AI-driven language learning provide unmatched scalability and accessibility, removing obstacles to student access and outreach across regional and socioeconomic divides. The successful integration of AI in ELT should be checked regularly. Teachers and curriculum designers must gather input from students and peers, analyze learning outcome data, and think about how AI technology affects teaching and learning procedures.

So it can be concluded based on data obtained by researchers that the use of AI in ELT learning is very effective. Because it is very helpful for educators, students, and academics, in addition to learning it also helps in assessment. And AI can also help students develop cultural sensitivity, cross-cultural competence, and global awareness.

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