

Artificial Intelligence (AI) Usage In Today's Teaching And Learning Process: A Review**Aisyah Nurjanah¹, Irma Nuraeni Salsabila², Adelia Azzahra³, Riska Rahayu⁴, Nina Marlina⁵**UIN Sunan Gunung Djati Bandung, Indonesia¹IPB Invada Cirebon, Indonesia²Universitas Swadaya Gunung Jati, Indonesia³IAIN Syekh Nurjati Cirebon, Indonesia⁴Politeknik Siber Cerdika Internasional, Indonesia⁵Email: aisyahn40@gmail.com¹, irmanuraenis84@gmail.com²,
adeliaazzahra349@gmail.com³, riskarahayu@mail.syekhnurjati.ac.id⁴**Abstract**

In today's technology world, the integration of artificial intelligence (AI) has become increasingly prominent in education, with enormous potential to improve the teaching and learning experience. AI, defined by its ability to imitate human intelligence, possesses enormous power and has the potential to dramatically impact a variety of areas, most notably education. AI has significantly improved learning experiences for both teachers and students by allowing them to be customized and personalized. This review article investigates the prospects provided by AI in modern teaching and learning processes, with a special emphasis on its advantages in language learning. This study examines existing literature and studies on AI in education, with a focus on language learning environments. The results show AI's advantages in giving targeted feedback and practice opportunities, making language learning easier, and improving overall learning efficiency and effectiveness. Thus, this review contributes to a better understanding of AI's role in redefining present educational paradigms, as well as its potential to transform teaching and learning methodologies.

Keywords: artificial intelligence, tools, language learning**INTRODUCTION**

In today's technology era, artificial intelligence (AI) is increasingly influencing the landscape of education, giving a plethora of potential to improve the teaching and learning process (Alam, 2021). AI refers to computers' ability to perform skills generally associated with human intelligence, such as thinking, correcting, self-improvement, and learning via experience (Richards & Schmidt, 2013, p. 34). AI is extremely strong and has the capacity to permeate and significantly impact various sectors of society, with the education sector being one of the most likely to be significantly impacted by AI (Shiohira, 2021). AI has improved learning experiences for students by enabling the customization and personalization of learning materials to students' needs and skills (Chen et al., 2020).

The implementation of Artificial Intelligence (AI) into education marks a new era of learning and teaching. AI has emerged as a potent tool with the potential to transform education by personalizing learning experiences, increasing efficiency, and increasing

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efficacy (Zaman, 2023). Furthermore, in reaction to AI's rapid advancement, educators expressed concerns about plagiarism, cheating, and the futility of many of their regular tasks. Students may generate essays that were difficult to distinguish from human writing in minutes. Some professors hurried to adjust their coursework in order to stay up with the changes, while others were completely oblivious of the newest technical innovations (Shah, 2023, p. 1).

In particular, AI provides benefits in the context of language learning. Conversational AI has been discovered to give students with tailored feedback and practice opportunities that may be absent due to instructor burden, allowing teachers to focus on designing and decision-making parts of the instructional process (Chan & Tsi, 2023). Furthermore, AI in language learning has grown in popularity due to its efficiency and simplicity. People can easily find different ways to learn a language now that smart devices and the Internet are more widely available. AI tools for language learning can help students save time by doing specific tasks for them and providing a more personalized learning experience based on their needs and progress (De la Vall & Araya, 2023). Thus, based on the beneficial of AI in educational and language learning context above, this review article seeks to analyzing opportunities of AI in the today's teaching and learning process.

The use of artificial intelligence (AI) in today's teaching and learning process presents various opportunities. Both teachers and students are receiving many benefits of AI. Moreover, this review article are aims to analyzing opportunities of AI in the today's teaching and learning process.

RESEARCH METHOD

The review article employs a literature review technique to examine the possibilities given by artificial intelligence (AI) in contemporary teaching and learning processes, with a particular emphasis on its impact on education and language learning. The literature review is a thorough assessment and synthesis of existing studies, research papers, and scholarly publications on AI in education, language learning, and instructional technology (Okoli & Schabram, 2010). The analysis process entails identifying major themes, trends, benefits, obstacles, and implications of AI deployment in educational contexts. The review's goal using this method is to provide a thorough and informative study of the possible benefits and implications of AI in revolutionizing the teaching and learning experience in today's technology-driven world.

RESULTS AND DISCUSSION

The advancement of generative AI technology opens the door to outsourcing much of the workload that occurs behind the scenes of instructional time. AI can help teachers solve pedagogical problems by providing an outline curriculum, draft lesson plans, generate assessments, and draft communication and feedback (Hooda et al., 2022). Recent advancements in AI technology will allow teachers to tailor their instruction and assignments to individual students, resulting in a more equitable and

effective teaching strategy (Shah, 2023, p. 3). These options are already there with current technologies, and in the coming years, these will only grow and present additional methods for instructors to change how they spend their time. The more teachers who can rely on AI for this portion of their workload, the more time and energy they will have to apply to providing direct education to students.

Table 1. The function AI provides in educational setting

AI in education	
Administration	<ul style="list-style-type: none"> a) Complete administrative activities faster, such as grading tests and providing feedback, which take up a lot of teachers' time. b) Identify each student's learning styles and preferences, allowing them to create a personalized learning plan. c) Assist instructors with decision support and data-driven work. d) Provide timely feedback and work with students personally.
Instruction	<ul style="list-style-type: none"> a) Estimate how well a student will outperform expectations in projects and exercises, as well as the likelihood of dropping out of school. b) Analyze the syllabus and course materials to provide tailored content. c) Allow instruction to extend beyond the classroom and into higher levels of education, so encouraging collaboration. d) Tailor the teaching style to each student based on their particular information. e) Assist instructors in developing tailored learning strategies for individual students.
Learning	<ul style="list-style-type: none"> a) Identify and resolve students' learning deficiencies early in their education. b) Customize university course selection for students. c) Predict each student's career journey by gathering studying data. d) Detect learning status and provide intelligent adaptive intervention to students.

Source: (Chen et al., 2020)

AI in education administration has showed potential in improving administrative activities including grading, providing feedback, and assessing assignments and papers. AI technologies, such as intelligent tutoring systems (ITSs) and specialized programs like Knewton, have been shown in studies to reduce the stress on instructors and improve efficiencies in a variety of administrative chores. Other tools, such as Turnitin and Ecree, have enabled instructors to do administrative chores on students' assignments, such as suggestive grading and plagiarism checks (Nguyen et al., 2023). The application of AI in education has increased the effectiveness and efficiency of administrative duties that would otherwise take a long time to complete in the absence of AI (Chen et al., 2020).

AI in instruction has benefited teaching tools and increased the quality of pedagogical practices. AI has been embedded into robots, allowing them to be used as teacher assistants and coworkers capable of performing basic and complex educational duties like teaching children to read and pronounce words. Furthermore, the integration

of AI with other technologies has led in the creation and application of improved teaching tools. This connection has also resulted in the invention and employment of chatbots, which have conversational and dialogue capabilities and can answer routine student questions and distribute instructional materials. AI provides cognitive and decision-making abilities, as well as communication and conversation abilities, allowing robots to be used as instructional and pedagogical tools (Chen et al., 2020).

AI in learning has been embraced and deployed in a variety of methods to help students learn. One way AI has been used to improve student learning is to customize and personalize curriculum and information based on the learners' needs, abilities, and capabilities. AI has also removed some barriers to learning opportunities, such as national and international borders, allowing for global access to learning via online and web-based platforms. AI systems can provide students with individualized feedback and recommendations, making learning more engaging and successful. AI-powered virtual tutors and chatbots can help students learn outside of the classroom by delivering on-demand support, addressing student questions, and enabling ongoing learning outside of conventional class hours (Chen et al., 2020).

AI technologies are providing a comprehensive answer to the educational setting, including administration, instruction, and learning context. Furthermore, Hamidouche (2023) claims that AI can integrate students' individual and learning process data, assess their learning conditions, and support teachers in altering teaching tactics, hence improving students' learning effectiveness. However, for AI to be effective, certain criteria must be met, the most important of which being Internet connectivity and database development. The internet helps to save money, time, and effort in this situation. It also gives tools for students and professors to improve academic work quality by easily publishing papers and theses and checking for plagiarism, among other things. Knowledge is becoming more democratic as AI is based on the Internet.

Another study by Zaman (2023) cites the following benefits of AI in education: (1) personalized learning, AI-powered tools such as adaptive learning platforms and intelligent tutoring systems can customize learning experiences for individual students, increasing engagement, motivation, and learning outcomes, (2) enhanced efficiency, automation of administrative chores such as grading and assessment can save teachers time and allow them to focus on delivering targeted support to students. (3) enhanced feedback, AI tools provide students with extensive and individualized feedback, assisting them in understanding their strengths and flaws and providing recommendations on how to improve. (4) improved accessibility, AI has the potential to make education more accessible to students with disabilities by providing alternate types of instruction and support. and (5) enhanced data analysis, AI assists educators in analyzing large amounts of data

It can then develop writing skills in the context of linguistic skills. AI can undoubtedly serve as a writing guidance. It appears to write good articles in terms of structure, clarity, and reasoning. According to a student, "ChatGPT could be used to help students improve their writing skills by generating suggestions for improving

sentence structure, grammar, and vocabulary" (Baskara, 2023). This is consistent with the quantitative findings. Teachers also use generative AI technologies to help students with research and to improve their research experience by assisting students to "identify keywords for a topic of research and test search phrases for researching" and "search references and prepare the reference sections of academic papers" (Chan & Tsi, 2023).

AI can also help with writing and brainstorming. ChatGPT and other AI technologies can also be utilized as writing assistants. Students often struggle to produce ideas or find inspiration at times. Additionally, after writing, students can use AI to improve their writing skills. In the words of someone else, "I would use it to help improve my writing (grammar, paraphrasing), consult some questions or let it give some feedback on my writing." It can be especially beneficial for non-native English-speaking students who are suffering with writing if AI can "help polish articles" and provide individualized comments for their written materials (Chan & Hu, 2023; Hidayatullah, 2024).

CONCLUSION

AI in education has showed considerable promise in improving administrative duties like grading, providing feedback, and assessing assignments and papers. It has also aided instruction by being integrated into robots and other instructional technologies, so boosting the quality of pedagogical tactics. AI in learning has been used in a variety of ways, including modifying and personalizing curriculum and information, as well as removing barriers to learning possibilities. To fully realize the benefits of AI in education, a balance must be struck between AI integration and the preservation of the human aspect in education, while also encouraging AI implementation.

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