



Artificial Intelligence in the English Classroom: Middle School Teachers' and Students' Perceptions

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Abstract

As artificial intelligence (AI) continues to revolutionize various sectors, its application in education, particularly language learning, is gaining attention. AI tools offer new possibilities for personalized instruction, adaptive feedback, and time-efficient learning experiences, making them increasingly relevant in modern classrooms. However, while global research on AI-assisted language learning is expanding, there is still limited understanding of how AI integration is perceived at the classroom level, particularly in under-researched contexts such as rural or faithbased schools in Indonesia. This study aims to address this gap by exploring the perceptions of students and teachers at SMP 1 Nurul Basmalah regarding the use of AI in English language instruction. *Using a qualitative approach through focus groups and interviews,* the findings suggest that AI can save students' time and offer personalized learning experiences through interactive engagement. However, concerns remain about teacher readiness and the reliance on electronic devices, emphasizing the need for professional development. Furthermore, this study highlights the importance of identifying both the strengths and limitations of AI in education, promoting ethical usage, and developing practical strategies to enhance learning outcomes and foster student creativity.

INTRODUCTION

Artificial intelligence in education, particularly in Merdeka curriculum education, is a growing concern to enhance student outcomes and bring solutions to present difficulties such as a shortage of resources and a diversity of learners' abilities (Velander et al., 2023). Despite this call, the literature emphasizes the growing need for AI literacy in students to adequately prepare them for the future job market, as well as the importance of research-based AI education programs in technology integration for student learning, teacher professional development, and assessment (Wang & Lester, 2023). AI is credited for its usefulness in the improvement of writing abilities and competence, creativity, and

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language acquisition. Research data has proven the impacts of fluency, flexibility, and narrative originality when AI technologies are implemented in teaching (Vicente-Yagüe-Jara et al., 2023). However, it is vital to remember that AI is merely an assisting tool in language acquisition and creativity, not human intellect, emphasizing the importance of striking a balance between harnessing AI's capability and honoring man's creative and intelligent contributions.

Integrating AI into English language learning offers a promising opportunity to improve educational quality and effectiveness (Zhang et al., 2023). This in line with the study conducted by Kamaliya et al. (2023) which investigates how Digital Citizenship Competencies (DCC) are incorporated into digital learning materials (DLM). That study's findings aim to raise awareness about digital citizenship competencies and provide guidance for teachers and stakeholders to develop reliable and varied digital learning materials that incorporate DCC. AI applications in education provide substantial benefits, including adaptive and tailored tutorial systems, automated tests with quick feedback, interactive learning aids, gamification, and the potential for worldwide cooperation. However, research on the deployment and usefulness of AI in education, particularly at the junior high school level, remains incomplete (Tanjga, 2023). Addressing the research gap in understanding how AI is used in English language learning at specific institutions, such as SMP 1 Nurul Bassmalah, as well as investigating teachers' and students' perceptions of its use, can provide valuable insights into the associated benefits and challenges, ultimately helping to advance AI integration in educational settings.

AI has become an increasingly popular topic in education over the past few decades. AI refers to computer systems that can perform tasks that typically require human intelligence, such as speech recognition, image recognition, decision-making, and language translation. In educational contexts, AI can be used for a variety of purposes, including adaptive learning, analysis of student data, automated assessment, and personalized learning support (Smith & Anderson, 2019). Adaptive learning is one of the most significant applications of AI in education. Adaptive learning systems use AI to adjust content and learning strategies based on each student's needs and progress. For example, platforms such as Knewton and DreamBox Learning use AI algorithms to personalize the learning experience, help students learn at their own pace, and provide the right resources at the right time (Johnson, et al., 2020). AI can also help in analyzing student data. By collecting and analyzing data from multiple sources, AI can identify patterns and trends that can help educators understand student progress and pinpoint areas that need more attention. Learning analytics can be used to improve curriculum, teaching methods, and customized learning interventions (Holmes, et al., 2019).

Automated grading is another important application of AI in education. Automated grading systems use natural language processing technology and machine learning algorithms to grade student work quickly and accurately. This not only reduces the teacher's workload but also provides rapid feedback to students, which is essential for effective learning (Kumar, et al., 2018). Personalized learning support is another aspect of AI that is highly valued in education. Virtual tutors and AI-based learning assistants such as IBM Watson Tutor, can provide individualized tutoring to students, answer their questions, and help them understand difficult concepts. This allows for a more in-depth and personalized learning experience, which can be especially beneficial for students who need additional help (Mayer & Harris, 2018).

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AI has shown its potential in improving language learning. In recent years, various AI-based applications and platforms have been developed to help students learn foreign languages. These applications use technologies such as natural language processing, speech recognition, and machine learning to provide interactive and effective learning experiences (Johnson, et al., 2020). One of the most famous apps is Duolingo, which uses AI to personalize language lessons for each user. Duolingo uses algorithms to assess users' progress and customize learning content according to their needs. Research has shown that Duolingo users can make significant progress in language learning in just a few months of use (Vesselinov & Grego, 2019).

Apart from language learning applications, AI is also used in language translation tools. Google Translate, for example, uses artificial neural networks to translate text from one language to another with increasing accuracy. It not only helps students understand texts in a foreign language but can also be used as a learning tool to learn new vocabulary and sentence structures (Wu, et al., 2016). AI is also used in speech recognition, allowing language learning apps to provide immediate feedback on a student's pronunciation. Apps like Rosetta Stone use speech recognition technology to analyze users' pronunciation and provide feedback that can help them improve their speaking skills. This is very beneficial in language learning because correct pronunciation is an important component of language fluency (Ehsani & Knodt, 2018). English language learning has benefited greatly from the integration of AI technology. One of the main benefits is the personalization of learning. AI enables teaching tailored to individual needs, which is especially important in language learning. For example, platforms like Grammarly use AI to provide personalized feedback on students' writing, helping them improve their grammar, vocabulary, and writing style (Nguyen, et al., 2022).

AI also facilitates interactive learning, which is very important in language learning. AI-based applications can turn learning into a more engaging and enjoyable process through various interactive activities, such as language games, conversation exercises, and quizzes. This can increase student motivation and make language learning more interesting (Warschauer, et al., 2019). Additionally, AI can provide instant feedback, which is very important in language learning. By providing immediate feedback on pronunciation, grammar, and vocabulary, AI helps students learn from their mistakes and improve their language skills more effectively. This also allows students to learn independently without always needing direct guidance from the teacher (Li & Lalani, 2020).

Even though the benefits are many, the integration of AI in education, especially in English language learning, also faces various challenges. One of the main challenges is the problem of access to technology. Not all schools and students have adequate access to technology devices and the internet, which can limit the use of AI in learning. This is especially true in developing countries where technological infrastructure is still inadequate (Brown & Harris, 2023). Another challenge is the lack of training for teachers in the use of AI technology. Many teachers feel they are not trained enough to use AI tools effectively in their teaching. This can result in suboptimal use of AI or even resistance to technology integration in learning. Therefore, adequate professional training for teachers is important to maximize the benefits of AI in education (Wang & Liu, 2022a). Ethical issues also pose a significant challenge to the use of AI in education. The use of student data by AI systems raises concerns about data privacy and security. There are also concerns about potential biases in AI algorithms that could unfairly influence learning outcomes (Lee, 2021). Therefore, it is important to develop policies and practices that ensure the ethical and responsible use of AI in education.

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The first study by An et al. (2022), entitled "Modeling English teachers' behavioral intention to use AI in middle schools" that English as a Foreign Language (EFL) teachers show positive attitudes towards the use of AI in English language teaching. They recognize the potential of AI to increase learning effectiveness through the personalization of materials, the provision of real-time feedback, and the ability to adapt teaching methods to individual student needs. This positive attitude is driven by the understanding that AI can reduce administrative burdens, allowing teachers to focus more on pedagogical aspects and direct interaction with students.

Secondly, a study conducted by Alqahtani et al. (2023) entitled "The emergent role of AI, natural learning processing, and large language models in higher education and research" investigates the role of AI, natural learning processing, and large language models on support language learning. The results show that AI enables more adaptive teaching, where each student receives material tailored to their needs and progress. By providing personalized real-time feedback, AI helps students correct their mistakes quickly and effectively, and improve their language skills more efficiently. This approach not only enhances students' learning experiences but also allows teachers to focus more on aspects of teaching that require human intervention, such as developing communication and critical thinking skills. Additionally, natural language processing (NLP) techniques used in AI improve capabilities in generating text and conducting literature reviews in the field of education. NLP enables AI systems to analyze texts in depth, produce relevant, quality content, and compile comprehensive literature reviews. This is very useful for researchers and academics in accessing and processing information more effectively. With these capabilities, AI and NLP together facilitate better research and curriculum development processes, as well as support innovation in teaching and learning methods in various scientific disciplines.

Thirdly, a study by Fudholi & Suominen (2018), entitled "The Importance of Recommender and Feedback Features in a Pronunciation Learning Aid" explores the impact of English pronunciation learning aids by providing recommender systems for exercises and feedback features like pronunciation scoring and speech replay to enhance language learners' skills. The results show that AI plays a crucial role in English pronunciation learning by providing a recommendation system for practice as well as feedback features such as pronunciation scoring and sound playback to improve learners' language skills. Using advanced AI algorithms, this learning system can analyze a student's pronunciation in real time, provide a score based on pronunciation accuracy, and recommend customized exercises to correct specific errors. The voice playback feature allows students to listen back to their pronunciation and compare it with the correct model, helping them identify and correct errors independently. This approach not only significantly improves students' pronunciation skills, but also provides a more interactive and personalized learning experience, encouraging greater engagement and improving learning outcomes.

This research aims to investigate the perceptions of junior high school teachers and students regarding the use of AI in English language learning, an area that has not been researched in depth in the educational context in Indonesia. Although AI offers great potential to improve the efficiency and effectiveness of learning, there is an urgent need to understand how this technology is viewed by key stakeholders in the educational process. Previous studies have highlighted the complexity of implementing new technology in existing classrooms (Smith & Jones, 2022), but there has been no specific study that explores the direct attitudes and perceptions of teachers and students regarding the

use of AI in the context of English learning at the junior high school level in Indonesia. It is hoped that this research will provide deeper insight into the challenges faced in adopting this technology as well as its potential benefits in improving the quality of English language learning in junior high schools.

This research proposes to explore new contributions in the literature regarding the use of artificial intelligence (AI) in English language learning at the Nurul Basmalah Junior High School 1 level, with a main focus on teacher and student perceptions. Although AI has attracted attention in the global education transformation, studies exploring the direct perceptions of stakeholders in this context are still limited (Wang & Liu, 2022b). Previous research often prioritizes technical aspects and learning outcomes, without deepening how these perceptions can influence the acceptance and effectiveness of implementing this technology in English language learning. Therefore, this research will not only fill a gap in the literature but also offer new insights into how these perceptions can shape a more successful and sustainable implementation of AI in education in Indonesia.

RESEARCH METHOD

Research Design

A qualitative approach is the right method to explore the perceptions of teachers and students at SMP 1 Nurul Basmalah regarding the use of artificial intelligence (AI) in learning English. This research adopts a case study approach to gain an in-depth understanding of how these technologies are received and understood in specific educational environments. According to Maxwell (2013), the case study approach allows researchers to examine phenomena in real contexts, considering various variables that influence the use and perception of AI technology in English language learning. Through in-depth interviews and focus group discussions, this research will explore teachers' views and students' experiences directly, allowing for rich and contextual data collection. This approach not only provides insight into how AI technologies are implemented and adopted in everyday teaching but also explores the social and psychological dynamics underlying their perceptions of these innovations in different educational contexts (Maxwell, 2013).

Place and Participants

This research will focus on participants from teachers and students at Nurul Basmalah 1 Middle School (SMP) as research subjects. Participant selection was carried out carefully based on the inclusion criteria established in class VIII A, which included experience in using educational technology and active involvement in teaching English. The selected participants will represent a variety of experiences, backgrounds, and viewpoints regarding the use of AI in the learning process. In this context, purposive sampling techniques will be used to ensure diversity in the data collected, by qualitative research principles which demand depth in data analysis and interpretation. By adopting this approach, the research is expected to provide a comprehensive picture of how teachers and students in junior high schools perceive and respond to the use of AI in English language learning contexts, as well as provide a strong foundation for the development of theory and practice in this area.





Data Collecting Technique

Observation

Descriptive qualitative research was chosen as the most appropriate method. A descriptive qualitative approach allows researchers to explore in depth the perceptions of teachers and students regarding the use of AI in English language learning in junior high schools. In this context, the research will adopt a phenomenological approach, which prioritizes a deep understanding of the subjective experiences and meanings given by participants to AI technology in the teaching and learning process. Phenomenology allows researchers to understand how AI is received, and interpreted and changes their everyday learning experiences (Creswell, 2013).

Data collection will be carried out through in-depth interviews with English teachers who use AI in their teaching, as well as group discussions with middle school students to get their first-hand perspectives. In-depth interviews will focus on direct experiences of technology use, challenges encountered, perceived benefits, and changes in teaching strategies. Meanwhile, group discussions will help in identifying general trends, patterns of perception, and responses that may arise from students' interactions with these technologies in their classroom contexts.

Data analysis will follow a thematic analysis approach, where data from interviews and group discussions will be coded and grouped based on the main themes that emerge. This approach will allow researchers to explore variations in the views and experiences expressed by participants, as well as to draw strong and in-depth conclusions about the impact of using AI in middle school English learning. By combining an in-depth qualitative approach with systematic analysis techniques, this research is expected to make a significant contribution to understanding the complexity of integrating AI technology in English education in Indonesia.

Interview

This study conducted interviews with selected students through their oral responses. Ary et al. (2010) identifies several types of interviews: Unstructured interviews, which are conversational and adapt questions according to the situation; structured interviews, which are planned to gather specific information from the subject; and Semi-structured interviews, where questions are prepared in advance but allow the interviewer to add unplanned questions as needed. This study utilized semi-structured interviews to gather descriptive opinions from students and teachers. The data obtained were then used to supplement information from students' questionnaire responses, helping to gather additional feedback and opinions.

The researcher selected two students as representatives, one male and one female, to understand their perceptions of using AI in English Language Learning. Ten questions were prepared to gather in-depth information, divided into two sessions. Questions 1-5 focused on students' perceptions, while questions 6-10 explored the challenges they faced in using AI for English Language Learning.

In conclusion, semi-structured interviews were conducted with students engaged in English Language Learning using AI. The interviews aimed to explore their perceptions, experiences, and the challenges of implementing AI tools in their language learning process.

Trustworthiness





To ensure the data's validity, the researcher will employ triangulation techniques, which involve comparing data from various sources (such as observations, interviews, and documentation) to verify the findings. Additionally, the researcher will engage participants in the member-checking process, asking them to confirm the accuracy of the researcher's interpretation of the data.

RESULTS AND DISCUSSION

In recent years, Artificial Intelligence (AI) has attracted significant attention in English language teaching, offering innovative approaches to enhance the learning experience. AI applications have penetrated various aspects of language teaching, providing new opportunities for personalized and adaptive learning. The use of AI technology has expanded in various aspects of life, especially in education. The presence of AI in this world has prompted a range of perspectives on its use in education. On the one hand, the integration of AI with natural human intelligence has the potential to enhance individual potential, achieve greater accomplishment, and expand access to information for students engaged in self-directed learning.

Result

The current applications of AI in English language teaching demonstrate the capacity of this technology to enhance the English learning experience by providing personalized instruction. facilitating communication, and providing targeted feedback. One student has stated, "AI helped me improve my pronunciation and grammar by providing immediate feedback, I feel more confident speaking in English because I can hear and correct my own mistakes". Teachers also perceive significant benefits; as one teacher stated, "The use of AI in my classroom allows me to devote more attention to students' individual needs. The system helps identify their weaknesses and provides appropriate practice." The utilization of AI tools enables language educators to create an engaging and adaptive learning environment that caters to students' individual needs. While today's AI technology offers numerous advantages, it is essential to be mindful of potential risks. One such risk is the possibility of biases in the use of AI in education, such as the inclination for students to rely on AI, which could potentially lead to a lack of critical and rational thinking. One student observed that, "While AI is beneficial, there is a tendency to rely excessively on technology, which may result in a lack of critical and analytical thinking". A teacher also commented on this phenomenon: "The integration of AI requires additional customization and training for educators so that it can be effectively utilized by students in a significant manner within the context of education". Furthermore, the advent of AI may also pose a threat to human resources as human roles are increasingly replaced by robotics. It is anticipated that the development of AI technology will continue to advance and experience significant development in the future. Nevertheless, it is unlikely that AI will be able to fully replace the role of humans, as it lacks the emotional aspects that humans possess.

In accordance with the prevailing trends of the digital age, the domain of education has undergone a notable transformation through the incorporation of AI. Given its potential to transform numerous sectors, including education, AI has emerged as a promising tool for enhancing the teaching and learning experience for a significant number of students. English language teaching, in particular, is confronted with numerous challenges in meeting the needs of a diverse student population. It is

therefore imperative to investigate the efficacy of AI in English language teaching in order to identify novel avenues for advancement in the field of English language teaching in the present era. AI-based adaptive learning systems offer personalized instruction by structuring learning content and activities according to students' individual needs and development. These systems employ machine learning algorithms to analyze student performance data and adjust learning paths as needed.

One of the advantages of AI in English language learning is the capacity to select learning materials that align with individual requirements. For instance, to ascertain the extent of plagiarism in a given student's work, one might utilize a tool such as *Turnitin*, *Quetext*, *Smallseotools*, *Plagiarism Detector*, or *Plagiarism Checker*. Furthermore, AI has the potential to provide students with personalized learning experiences based on their individual interests. AI offers personalized feedback and learning, particularly in the context of English writing.

The integration of AI in English language instruction at Nurul Basmalah 1 junior high school presents both opportunities and challenges. AI is a valuable tool in the fields of education and language learning, particularly in the context of English language instruction. The increasing prevalence of AI presents both educators and learners with a wealth of potential avenues for acquiring knowledge. Furthermore, AI has the potential to address language learning difficulties in an expedient manner. Nevertheless, alongside the numerous opportunities that AI presents for English language learning, educators must also prepare to confront the challenges that it will undoubtedly bring about in the future.

The results of the survey indicate that a significant proportion of students believe that AI will eventually replace the role of English teachers. This is based on the assumption that millennials are already proficient and tech-savvy in the use of AI. One student stated, "AI provides numerous opportunities for more effective learning, but at times I feel it lacks the human interaction that is crucial in the learning process." Another teacher noted, "AI can be highly beneficial in monitoring student progress and providing real-time feedback, but I also believe that there should be a balance with traditional approaches to ensure comprehensive learning."

The use of AI technology enables the delivery of timely and targeted feedback to students. Another teacher commented, "The implementation of AI facilitates the assessment and provision of feedback in a more expedient manner. However, it is imperative to ensure that students do not rely solely on this technology and continue to develop their critical thinking skills." Meanwhile, a student added, "The integration of AI allows for a more independent approach to learning. However, there is a tendency to rely excessively on the technology, which may result in a lack of direct interaction with the teacher."

Through speech recognition and natural language processing, the AI system analyzes students' speech or writing and provides feedback on pronunciation, grammar, and vocabulary usage. By understanding these perceptions and experiences, it becomes evident that while AI offers numerous benefits, there are also challenges that must be overcome to fully realize its potential in English education.

Discussion

The integration of Artificial Intelligence (AI) in English language teaching has revolutionized the field by offering personalized learning experiences, interactive practice, and automated e-ISSN: 2807-8594



assessment (Zhang et al., 2023). AI technologies enable the analysis of vast amounts of data to provide tailored learning experiences, enhancing student outcomes and engagement. The use of AI in education, including language learning, has been a growing field, with educators exploring its pedagogical advantages and impact on teaching and learning in higher education (Sharma & Sharma, 2023). By combining AI with human natural intelligence, students can benefit from personalized learning experiences, real-time feedback, and interactive engagement, ultimately improving language proficiency and cultural literacy in authentic contexts assessment (Zhang et al., 2023). The fusion of AI and human intelligence holds the promise of maximizing individual capabilities, achieving significant milestones, and broadening access to information for students pursuing self-directed learning in the digital age.

AI in English language instruction has shown remarkable potential in enhancing language learning experiences through personalized instruction, communication facilitation, and targeted feedback. By providing direct feedback on pronunciation and grammar, AI tools have empowered students to improve their language skills and boost their confidence in speaking English (Yang et al., 2023). Educators have also benefited significantly from AI integration, as it enables them to focus on individual student needs by identifying weaknesses and offering tailored exercises. The use of AI in language learning environments has been found to enhance communication skills through interactive and personalized experiences, ultimately contributing to more effective language acquisition and development (Rusmiyanto et al., 2023). Additionally, a study conducted by (Chisega-Negrilă, 2023) shows that AI technologies in Education 4.0 have revolutionized language learning by creating immersive experiences and diverse learning materials that align with the principles of modern education, promoting critical thinking, problem-solving skills, and digital literacy.

The concerns surrounding AI integration in education, as highlighted in the provided data, encompass potential biases, overreliance on technology leading to diminished critical thinking, and the need for adjustments and additional training for educators to effectively implement AI at scale while ensuring data security and privacy. Research conducted by Baskara (2023) found that students expressing feelings of excessive reliance on AI at the expense of independent critical thinking underscores the importance of balancing AI usage with fostering students' cognitive skills. Educators' emphasis on the necessity for training and adjustments to implement AI effectively (Popenici, 2023), aligns with the broader discussion on the challenges of integrating AI in education, including ethical considerations, privacy issues, and the impact on values and beliefs (Baskara, 2023). Addressing these concerns requires a comprehensive approach that prioritizes responsible data management to safeguard student privacy and uphold ethical standards.

AI's advancements in education, particularly in English language teaching, are promising, with adaptive AI-based learning systems offering personalized instruction through tailored content and activities (Kamruzzaman et al., 2023) emphasize that these systems utilize machine learning algorithms to analyze student data, enabling the adjustment of learning paths based on individual needs and progress. Research emphasizes the importance of AI literacy for teachers to effectively engage with AI in Merdeka Curriculum education, highlighting the need for new skill sets and knowledge transfer to bridge the gap between research and practical application (Velander et al., 2023). Additionally, studies conducted by Ahmad et al. (2023) show that AI can impact decision-making, laziness, and privacy concerns among students, emphasizing the necessity of addressing

ethical and human concerns before widespread implementation in education. As AI continues to evolve, exploring the effectiveness of AI in English language teaching becomes crucial for unlocking new opportunities and enhancing learning outcomes.

AI plays a crucial role in enhancing English language education by providing personalized learning experiences tailored to individual needs and interests. According to Owan et al. (2023), AI tools like *Turnitin, Quetext*, and *Plagiarism Checker* contribute significantly to the educational experience by detecting plagiarism and promoting academic integrity, particularly in English writing instruction. These AI-powered tools not only ensure originality in student work but also help educators in providing constructive feedback to enhance students' writing skills. By analyzing vast amounts of data, AI can adapt to students' unique requirements, offering tailored learning materials and interactive practice opportunities that improve communication skills in English language learners (Rusmiyanto et al., 2023). The integration of AI in English language education not only enhances the efficiency of learning but also fosters critical thinking, problem-solving skills, and digital literacy essential for success in the digital age.

Despite the benefits AI offers in enhancing learning efficiency, concerns persist. Many students believe AI could potentially replace English language teachers in the future, given the technological proficiency of the millennial generation in AI usage. This sentiment highlights a growing need to balance AI-driven educational approaches with traditional methods to ensure comprehensive learning (Al-Tkhayneh et al., 2023). Maintaining a balance between technological integration and human interaction remains pivotal for fostering critical thinking skills and emotional development among students.

Besides the findings from previous studies, AI presents substantial opportunities for improving English language education. However, addressing challenges related to bias, over-reliance on technology, and maintaining human-centered learning environments is essential. By understanding these perceptions and experiences, educators can harness AI's potential while mitigating its associated risks, thereby maximizing its effectiveness in English language education.

CONCLUSION AND RECOMMENDATION

Conclusion

The integration of Artificial Intelligence (AI) in English language teaching at the junior high school level, particularly at SMP 1 Nurul Basmalah, demonstrates both significant potential and notable challenges. The research findings highlight the transformative power of AI in education by providing personalized learning experiences, enhancing student engagement, and facilitating real-time feedback. AI tools, such as those for improving pronunciation and grammar, have been shown to boost students' confidence and language skills teachers' benefit from AI's ability to identify student weaknesses and tailor instruction accordingly. The personalized and interactive learning environments enabled by AI contribute to more effective language acquisition and development

However, the integration of AI in education is not without its risks. Concerns about potential bias, over-reliance on technology, and the need for substantial teacher training are prevalent. These concerns are echoed in the literature, which emphasizes the importance of balancing AI usage with fostering critical thinking skills and ensuring ethical standards in data management. The over-reliance

on AI could lead to diminished critical thinking among students, as some students reported feeling too dependent on the technology additionally, the necessity for educators to receive adequate training to effectively implement AI in their teaching practices is paramount.

The potential for AI to revolutionize English language teaching is evident in its ability to offer adaptive and personalized learning systems. These systems utilize machine learning algorithms to analyze student data and adjust learning paths based on individual needs and progress. Despite the promising benefits, there remains a crucial need to address ethical and human concerns, such as privacy issues and the impact on values and beliefs.

Recommendation

To maximize the benefits of AI while mitigating its risks, it is essential to maintain a balance between AI-driven educational approaches and traditional methods. This balance will ensure comprehensive learning and foster critical thinking and emotional development among students. Educators must be provided with adequate training and professional development opportunities to effectively implement and integrate AI technologies in their teaching practices. This will enhance their ability to utilize AI tools to address individual student needs and improve learning outcomes.

Moreover, educational strategies should focus on encouraging students to develop critical thinking skills and engage in independent learning. While AI can provide valuable support, it is crucial to cultivate students' abilities to think critically and solve problems independently. The effectiveness of AI integration in English language teaching should be continuously evaluated and adapted based on feedback from teachers, students, and other stakeholders. Regular assessment and adaptation will ensure that AI technologies are used effectively and aligned with educational goals.

REFERENCES

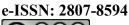
- Ahmad, S. F., Han, H., Alam, M. M., Rehmat, M. K., Irshad, M., Arraño-Muñoz, M., & Ariza-Montes, A. (2023). Impact of artificial intelligence on human loss in decision making, laziness and safety in education. *Humanities and Social Sciences Communications*, 10(1). https://doi.org/10.1057/s41599-023-01787-8.
- Alqahtani, T., Badreldin, H. A., Alrashed, M., Alshaya, A. I., Alghamdi, S. S., Saleh, K. B., Alowais, S. A., Alshaya, O. A., Rahman, I., Yami, M. S. A., & Albekairy, A. M. (2023). The emergent role of artificial intelligence, natural learning processing, and large language models in higher education and research. *Research in Social and Administrative Pharmacy*, *19*(8), 1236–1242. https://doi.org/10.1016/j.sapharm.2023.05.016.
- Al-Tkhayneh, K.M., Alghazo, E.M., & Tahat, D. (2023). The Advantages and Disadvantages of Using Artificial Intelligence in Education. *Journal of Educational and Social Research*.
- An, X., Chai, C. S., Li, Y., Zhou, Y., Shen, X., Zheng, C., & Chen, M. (2022). Modeling English teachers' behavioral intention to use artificial intelligence in middle schools. *Education and Information Technologies*, 28(5), 5187–5208. https://doi.org/10.1007/s10639-022-11286-z.
- Ary, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to research in education* (8th ed.). Wadsworth/Cengage Learning.





- Baskara, R. (2023). Personalised Learning With AI: Implications for Ignatian Pedagogy. *International Journal of Educational Best Practices*, 7(1), 1. https://doi.org/10.31258/ijebp.v7n1.p1-16.
- Brown, D., & Harris, G. (2023). Challenges and opportunities in AI-assisted education. *Contemporary Issues in Education Research*, 16(1), 67-80.
- Chisega-Negrilă, A. M. (2023). The New Revolution in Language Learning: The Power of Artificial Intelligence and Education 4.0. *Bulletin of Carol I National Defence University*, *12*(2), 16–27. https://doi.org/10.53477/2284-9378-23-17.
- Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). SAGE Publications.
- Ehsani, F., & Knodt, E. (2018). Speech Technology in Computer-Aided Language Learning: Strengths and Limitations of a New CALL Paradigm. *Language Learning & Technology*, 2(1), 45-60.
- Fudholi, D., & Suominen, H. (2018). *The Importance of Recommender and Feedback Features in a Pronunciation Learning Aid.* https://doi.org/10.18653/v1/w18-3711.
- Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial Intelligence in Education: Promises and Implications for Teaching and Learning*. Center for Curriculum Redesign.
- Johnson, L., McLaughlin, C., & Jeffries, R. (2020). AI-based language learning applications: A review. *Journal of Language Education*, 15(2), 128-142.
- Kamaliya, V., Mayuni, I., & Palupi, T. M. (2023). The Incorporation of Digital Citizenship Competency in e-Learning Materials for Junior High School Students: A Content Analysis. *Stairs English Language Education Journal*, 4(1). https://doi.org/10.21009/stairs.4.1.4.
- Kamruzzaman, M. M., Alanazi, S., Alruwaili, M., Alshammari, N., Elaiwat, S., Abu-Zanona, M., Innab, N., Elzaghmouri, B. M., & Alanazi, B. A. (2023). AI- and IoT-Assisted Sustainable Education Systems during Pandemics, such as COVID-19, for Smart Cities. *Sustainability*, 15(10), 8354. https://doi.org/10.3390/su15108354.
- Kumar, V., Kumar, U., & Mahto, V. (2018). Automated Essay Scoring Using Machine Learning. *Journal of Educational Technology Systems*, 47(2), 138-156.
- Lee, T. (2021). Ethical issues in the use of AI in education. *International Journal of Educational Ethics*, 8(1), 23-35.
- Li, C., & Lalani, F. (2020). *The COVID-19 pandemic has changed education forever. This is how.*World Economic Forum. Retrieved March 1, 2024, from https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning.
- Maxwell, J. A. (2013). *Qualitative Research Design: An Interactive Approach*. SAGE. http://books.google.ie/books?id=DFZc28cayiUC&printsec=frontcover&dq=Qualitative+research+design:+An+interactive+approach+(3rd+ed.)&hl=&cd=1&source=gbs.api.
- Mayer, R. E., & Harris, S. E. (2018). Artificial Intelligence and the Future of Teaching and Learning. *Educational Psychologist*, *53*(4), 281-298.
- Nguyen, T., Do, N. H., & Nguyen, N. T. (2022). Grammarly for Improving Academic Writing: Students' Perceptions and Experience. *Journal of Computers in Education*, 9(1), 73-95.

- Owan, V. J., Abang, K. B., Idika, D. O., Etta, E. O., & Bassey, B. A. (2023). Exploring the potential of artificial intelligence tools in educational measurement and assessment. *Eurasia Journal of Mathematics Science and Technology Education*, 19(8), em2307. https://doi.org/10.29333/ejmste/13428.
- Popenici, S. (2023). The critique of AI as a foundation for judicious use in higher education. Journal of Applied Learning & Teaching, 6(2). https://doi.org/10.37074/jalt.2023.6.2.4.
- 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.
- Sharma, S., & Sharma, D. (2023). Integrating artificial intelligence into education. International *Journal of Advanced Academic Studies*, 5(6), 35–39. https://doi.org/10.33545/27068919.2023.v5.i6a.1004.
- Smith, J., & Anderson, P. (2019). The role of AI in modern education. *Educational Technology Journal*, 12(3), 45-60.
- Smith, A., & Jones, B. (2022). Challenges in implementing new educational technologies in classrooms. *International Journal of Educational Technology*, 15(2), 123-136.
- Tanjga, M. (2023). E-learning and the Use of AI: A Review of Current Practices and Future Directions. *Qeios*. https://doi.org/10.32388/ap0208.
- Velander, J., Taiye, M. A., Otero, N., & Milrad, M. (2023). Artificial Intelligence in K-12 Education: eliciting and reflecting on Swedish teachers' understanding of AI and its implications for teaching & learning. *Education and Information Technologies*, 29(4), 4085–4105. https://doi.org/10.1007/s10639-023-11990-4.
- Vesselinov, R., & Grego, J. (2019). Duolingo Effectiveness Study. City University of New York.
- Vicente-Yagüe-Jara, M. I., López-Martínez, O., Navarro-Navarro, V., & Cuéllar-Santiago, F. (2023). Writing, creativity, and artificial intelligence. ChatGPT in the university context. *Comunicar*, 31(77). https://doi.org/10.3916/c77-2023-04.
- Wang, N., & Lester, J. (2023). K-12 Education in the Age of AI: A Call to Action for K-12 AI Literacy. *International Journal of Artificial Intelligence in Education*, *33*(2), 228–232. https://doi.org/10.1007/s40593-023-00358-x.
- Wang, Q., & Liu, Y. (2022a). Perceptions of artificial intelligence in education: A systematic review of empirical studies. *Educational Technology Research and Development*, 70(5), 2457-2481.
- Wang, Y., & Liu, H. (2022b). Teacher training for AI in education: A necessity. *Journal of Teacher Development*, 21(4), 381-396.
- Warschauer, M., Zheng, B., & Park, Y. (2019). Digital Tools and Student Writing. *Contemporary Educational Technology*, 10(2), 111-127.
- Wu, Y., Schuster, M., Chen, Z., Le, Q. V., Norouzi, M., Macherey, W., Krikun, M., Cao, Y., Gao, Q., Macherey, K., Klingner, J., Shah, A., Johnson, M., Liu, X., Kaiser, U., Gouws, S., Kato, Y., Kudo, T., Kazawa, H., . . . Dean, J. (2016). Google's Neural Machine Translation System: Bridging the Gap between Human and Machine Translation. *arXiv* (*Cornell University*). https://doi.org/10.48550/arxiv.1609.08144.







- Yang, H., Gao, C., & Shen, H. Z. (2023). Learner interaction with, and response to, AI-programmed automated writing evaluation feedback in EFL writing: An exploratory study. *Education and Information Technologies*, 29(4), 3837–3858. https://doi.org/10.1007/s10639-023-11991-3.
- Zhang, X., Sun, J., & Deng, Y. (2023). Design and Application of Intelligent Classroom for English Language and Literature Based on Artificial Intelligence Technology. *Applied Artificial Intelligence*, 37(1). https://doi.org/10.1080/08839514.2023.2216051.