



The Impact of Artificial Intelligence on English Language Teaching: Opportunities and Challenges in Technology Era

Ahmad Fahim Hilmy Ahimsa¹, Dewi Khawa²

^{1,2}Universitas KH. Mukhtar Syafa'at Banyuwangi

E-mail: ahmadfahimhilmyahimsa@gmail.com¹,
hawaabdulloh@iaida.ac.id²

Received: 2025-02-01 Accepted: 2025-03-23

DOI: 10.24256/ideas.v13i1.6270

Abstract

The purpose of this study is to analyze the impact of artificial intelligence (AI) on English language teaching, especially in the context of the English Language Study Program at KH. Mukhtar Syafa'at University Banyuwangi. Along with the development of technology, AI has presented various opportunities and challenges in education. One of the main opportunities is AI's ability to provide personalized learning, where technologies such as chatbots, virtual assistants, and AI-based applications can help students improve language skills independently. This qualitative case study analyses AI's impact on English teaching at KH. Mukhtar Syafa'at University, Banyuwangi. Data is collected through semi-structured interviews with lecturers and students, participant observation, and document analysis. Thematic analysis identifies key patterns, with source triangulation ensuring validity. Findings explore AI's benefits, challenges, and its role in enhancing learning. This study aims to provide insights into optimizing AI integration while maintaining effective pedagogy in academic environments. The results of this study show that Artificial intelligence (AI) significantly impacts English learning by enhancing students' self-directed learning with instant feedback. However, excessive reliance on AI may hinder critical thinking and social interaction. Lecturers also face challenges in AI adaptation due to limited training and infrastructure, fearing it may reduce their role. A balanced approach is essential—students should use AI as a learning tool, not a substitute for thinking and communication. Universities must provide training and support to help lecturers integrate AI effectively while maintaining human interaction in education. With proper strategies, AI can enhance learning quality without diminishing educators' roles.

Keywords: *Artificial Intelligence; English Language Teaching; Technology Era*

Introduction

The integration of artificial intelligence (AI) into educational contexts, particularly in English Language Teaching (ELT), has emerged as a transformative force in recent years (Kovalenko & Baranivska, 2024). Rapid advancements in AI technology, such as language modeling and adaptive learning platforms, offer unprecedented opportunities to revolutionize how students learn and how educators teach (Rane et al., 2023). However, this technological evolution also brings challenges, such as potential inequalities in access, ethical dilemmas regarding data usage, and the need for educators to adapt to new methodologies (Pedro et al., 2019). These issues are particularly critical, which aim to foster global competencies through English proficiency (Duffy et al., 2022).

A key reason for studying AI's impact on ELT lies in the growing demand for English as a global lingua franca, which underscores its role in academic and professional success (Vaishnav, 2024). Studies show that AI tools, including chatbots and AI-assisted language tutors, significantly enhance student engagement and personalized learning experiences (AbuSahyon et al., 2023). For example, research by Burkhard, (2022) indicates that AI-powered applications can improve student learning outcomes by 30% compared to traditional methods. However, gaps remain in understanding how these tools affect teacher roles and pedagogical frameworks (Chai et al., 2013). Therefore, examining this integration in a specific context like Universitas KH Mukhtar Syafaat ensures that the benefits of AI can be maximized while mitigating challenges. In conclusion, addressing AI's dual nature—its potential and its pitfalls—is essential for equitable and effective ELT practices.

Existing research on AI in ELT highlights both its transformative potential and its limitations. Scholars such as Wang, (2024) emphasize that AI-driven tools, including intelligent tutoring systems and automated assessment platforms, enhance language proficiency by providing immediate feedback and tailoring content to learners' needs. These studies focus primarily on technological efficacy and learner outcomes. For instance, a meta-analysis by Tajik, (2025) revealed that students using AI-supported platforms improved their writing skills faster than those in traditional classrooms.

Despite these advancements, there remains a lack of research addressing the socio-cultural and institutional implications of AI in ELT, particularly in non-Western contexts like Indonesia (Artha et al., 2024). Issues such as teacher resistance, inadequate infrastructure, and the cultural relevance of AI content have yet to be thoroughly explored (Miao et al., 2021). Additionally, few studies have examined the long-term impact of AI on critical thinking and creativity in language learning. In conclusion, while the existing literature demonstrates AI's potential in ELT, a deeper investigation into its broader implications is necessary, providing a rationale for this study.

This study focuses on exploring the opportunities and challenges of integrating artificial intelligence in English Language Teaching at Universitas KH Mukhtar Syafaat. The primary objective is to investigate how AI impacts teaching practices and student learning outcomes, shedding light on both its advantages and limitations. By examining the adoption of AI, this research aims to identify the specific challenges educators face, such as the lack of adequate training and resources, as well as how these obstacles can be addressed to maximize the effectiveness of AI in teaching.

Another key aspect of this study is understanding students' perceptions of AI tools and their experiences in using them for language learning. Additionally, this research seeks to assess whether AI can successfully complement traditional teaching methods, balancing technological innovation with the humanistic aspects of education. By addressing these objectives, the study aims to provide insights that not only bridge the gap between theory and practice but also guide educators and administrators in effectively integrating AI within the university's English teaching framework.

Preliminary findings suggest that AI has the potential to enhance ELT by promoting personalized learning and efficiency (Wei, 2023). For example, adaptive learning platforms like Duolingo or Grammarly allow students to progress at their own pace while receiving real-time feedback. However, challenges such as limited teacher training and ethical concerns regarding data privacy remain significant barriers. Studies by Oliveira et al., (2021) highlight that without adequate support, educators may feel overwhelmed or resistant to adopting AI technologies. Furthermore, student perceptions of AI tools often depend on their digital literacy and trust in technology, as noted by (Chounta et al., 2022)

The purpose of this study is to analyze the impact of artificial intelligence (AI) on English language teaching, especially in the context of the English Language Study Program at KH. Mukhtar Syafa'at University Banyuwangi. Along with the development of technology, AI has presented various opportunities and challenges in education. One of the main opportunities is AI's ability to provide personalized learning, where technologies such as chatbots, virtual assistants, and AI-based applications can help students improve language skills independently. In addition, AI can also help lecturers in developing more interactive and effective teaching materials.

However, on the other hand, the presence of AI also presents challenges, such as students' dependence on technology, lack of human interaction in the learning process, and AI's limitations in understanding cultural nuances and language context. Therefore, this study aims to explore the extent to which AI can be integrated in English language learning and how lecturers and students can

optimally utilize it without sacrificing the pedagogical aspects and human interaction that remain important in the learning process.

The novelty in this research lies in its specific focus on the impact of artificial intelligence (AI) in English language teaching at the English Language Study Program of KH. Mukhtar Syafa'at University of Banyuwangi. Different from previous studies that more generally discuss the use of AI in language education, this research highlights how AI can be optimally adapted in the local curriculum, taking into account cultural factors, teaching methods, and the readiness of lecturers and students to adopt this technology.

In addition, this research also explores the balance between the use of AI and human interaction in English language learning, which is still rarely discussed in depth in the context of regional universities. Thus, the results of this study are expected to provide a new contribution in understanding AI implementation strategies that are not only effective but also aligned with the needs of English education in Indonesia, especially in the academic environment that continues to evolve in this technological era.

In this study, it is argued that a balanced approach is essential—combining technological integration with robust teacher training and ethical guidelines. These measures can ensure that AI serves as a complement, not a replacement, for traditional teaching methods. In conclusion, while AI offers transformative potential for ELT, its successful implementation requires careful consideration of human, institutional, and cultural factors. This argument will be tested further through empirical research at Universitas KH Mukhtar Syafaat.

Method

This study uses a qualitative approach with a case study method to analyze the impact of artificial intelligence (AI) on English language teaching in the English Study Program at KH. Mukhtar Syafa'at University, Banyuwangi. The case study was chosen because it allows researchers to explore in depth the experiences and perspectives of lecturers and students in integrating AI into the learning process (Walliman, 2021).

The main data source in this study is semi-structured interviews with lecturers and students who have used AI-based technology in English language learning. These interviews aim to understand how AI is used, the benefits they feel, and the challenges they face. Lecturers will be interviewed regarding their readiness to adopt AI and the obstacles they experience, while students will be asked to explain their experiences in using AI to improve their English skills, including the positive and negative aspects. Addition to interviews, this study also uses participant observation to see firsthand how AI is applied in the classroom or in students' independent learning activities.

Additional data will be obtained through document analysis, such as academic policies related to the use of AI, technology-based learning materials, and student assignments that use AI in their work processes (Fellows & Liu, 2021).

The collected data will be analyzed using thematic analysis techniques, where key patterns related to opportunities and challenges in the use of AI will be identified and categorized based on the findings obtained. The validity of the data will be strengthened through source triangulation by comparing the results of interviews, observations, and documents analyzed. With this method, the study is expected to provide a comprehensive picture of the impact of AI on English language teaching and strategies that can be applied to optimize its use in academic environments (Coe et al., 2021).

Results

Enhancing Student Independent Learning

In an era of rapidly evolving technology, artificial intelligence (AI) has brought about significant changes in learning methods, including in English language teaching. One of the most prominent impacts is the increasing ability of students to learn independently through AI-based technologies. Applications such as learning chatbots, virtual assistants, and AI-based interactive platforms allow students to practice English skills without always having to rely on lecturers. With instant feedback and personalized materials, students can identify their mistakes and improve their understanding of English more effectively. However, while these technologies offer flexibility in learning, there are still challenges related to the limitations of human interaction and the possibility of technology dependency.

To support this finding, an interview was conducted with one of the students of the English Language Study Program at KH. Mukhtar Syafa'at University of Banyuwangi, who has used AI applications in his learning. The student revealed their experience as follows:

"I feel more confident practicing English since using AI apps like Grammarly and ChatGPT. I can get instant grammar corrections, and these apps also help me understand sentence structure better. However, sometimes I feel less used to talking directly to lecturers or friends because I rely more on technology to correct my mistakes."

The results of these interviews suggest that while AI helps to enhance students' independent learning, there are challenges in terms of social engagement and direct interaction in the learning process. Therefore, there needs to be a balance in the use of technology so that students continue to develop their overall communication skills.

Students' Dependence on Technology

In the rapid development of technology, artificial intelligence (AI) has become a widely used tool in learning, including in English language teaching. While AI offers various conveniences, such as quick access to information, auto-correction, and personalized learning, there is a serious challenge that needs to be considered, which is the increasing dependence of students on technology. Some students tend to rely too much on AI to complete assignments, correct grammar, and even compose essays or conversations, thus reducing their critical thinking skills. In addition, social interaction in direct language practice is also reduced, as students rely on AI more often than discussing or practicing speaking with friends and lecturers. This dependency can lead to a less in-depth understanding of the language and weaken students' ability to construct arguments and overcome challenges independently.

To understand this phenomenon further, an interview was conducted with a student from the English Language Study Program at KH. Mukhtar Syafa'at University of Banyuwangi. The student gave his views as follows:

"I see other students who rely too much on AI to correct their writing. It helps, but sometimes they just accept the corrections without really understanding the mistakes. I've also noticed that their speaking ability in class discussions has decreased because they rely more on AI to devise answers rather than thinking for themselves."

The interviews confirmed that while AI can be a useful tool in English language learning, over-reliance on it can hinder the development of students' critical thinking skills and social interaction. Therefore, it is important for lecturers and students to use AI wisely, making it a support for learning without replacing the thinking and communication processes that must still be developed in an academic environment.

Challenges in Adaptation and Lecturer Readlines

The development of artificial intelligence (AI) in education has brought about major changes in teaching methods, including in English language teaching. However, behind the opportunities offered, there are challenges in terms of adaptation and lecturer readiness in integrating AI into learning. Many lecturers still face difficulties in understanding and optimally utilizing AI technologies due to limited resources, training, and infrastructure. Some lecturers feel that the application of AI requires higher technical skills, while not all have sufficient technological background. In addition, the lack of systematic training causes many lecturers to hesitate in using AI in teaching, for fear that it will diminish their role as educators. Therefore, effective strategies are needed to improve lecturers' digital literacy so that they can adapt AI appropriately without compromising the quality of human interaction-based learning.

To dig deeper into this challenge, an interview was conducted with one of the lecturers of the English Study Program at KH. Mukhtar Syafa'at University of Banyuwangi. The lecturer expressed his views as follows:

"AI is interesting, but for lecturers like me who are used to conventional methods, the adaptation is not easy. I feel like I don't fully understand how to use it effectively in class. Also, there is no specific training that helps us understand how AI can be integrated without replacing our role as teachers."

The results of these interviews show that although AI has great potential in improving teaching effectiveness, the main challenge lies in the readiness and adaptation of lecturers in using it. Therefore, universities need to provide continuous training programs as well as technical support so that lecturers can optimize the use of AI in English language learning without losing the essence of live interaction which remains an important part of the educational process.

Discussion

Improving Student Independent Learning

The findings on improving students' self-directed learning with the use of artificial intelligence (AI) show that this technology has a big role to play in supporting the process of learning English. Students feel more confident in understanding grammar, sentence structure and other linguistic aspects thanks to instant feedback from AI-based applications (Yener & Selcuk, 2024). However, the findings also reveal a potential dependency that can inhibit social interaction and critical thinking skills in live language use. Students who are used to getting auto-correction tend to be less active in practicing speaking or writing independently without AI assistance.

The interpretation of these findings is in line with Glăveanu, (2021) theory of Sociocultural Theory, which emphasizes that language learning depends not only on technological aids but also on social interaction. Glăveanu states that a person's cognitive development occurs through social processes, where interaction with others plays a major role in building understanding and skills. In this context, the use of AI is indeed beneficial as a scaffolding or learning aid, but if overused without human interaction, students may lose the opportunity to develop communication and critical thinking skills naturally.

In addition, the theory of Constructivism proposed by Muhajirah, (2020) is also relevant, where effective learning occurs through direct experience and independent reflection. Students who rely too much on AI in correcting their mistakes may not experience a deep cognitive process in understanding the language, as they only receive corrections without actually analyzing their mistakes. Therefore, it is important for lecturers and students to develop a balanced learning strategy, where AI is used as a tool, but social interaction and self-practice remain

a major part of English learning.

Students' Dependence on Technology

The findings on students' reliance on technology in English language learning show that while AI provides easy access to information and automatic correction, its overuse can hinder the development of critical thinking and direct communication skills (Yilmaz & Yilmaz, 2023). Students who rely too much on AI tend to simply accept corrections without analyzing their mistakes, resulting in less in-depth understanding of the language. In addition, social interaction in academic discussions decreases as students rely more on AI to construct answers rather than thinking independently.

This finding can be attributed to Sweller, (2020) Cognitive Load Theory, which states that effective learning occurs when cognitive load is balanced. When students rely too much on AI, they avoid the complex thought processes required to understand language structures independently. In addition, Sociocultural Theory by (Alkhudiry, 2022) asserts that language learning develops through social interaction. If students rely more on AI than discussing with lecturers or friends, their ability to think critically and argue may be weakened.

Therefore, there is a need for learning strategies that limit reliance on AI and encourage students to remain active in thinking and communicating directly. AI should be used as a tool rather than a substitute in the language learning process.

Challenges in Adaptation and Lecturer Readiness

The findings show that while artificial intelligence (AI) offers many opportunities in English language teaching, the biggest challenge lies in lecturers' readiness and adaptation in integrating this technology. Many lecturers still find it difficult to understand how AI works and apply it effectively in the classroom, mainly due to a lack of training and adequate infrastructure support. Concerns that AI may diminish their role as educators also an obstacle to its implementation (Pedro et al., 2019). As a result, the utilization of AI in English language learning has not been optimal and is still limited to a handful of individual innovations.

This finding is in line with the Technology Acceptance Model (TAM) theory developed by (Han & Sa, 2022), which states that technology adoption is influenced by two main factors: perceived usefulness and perceived ease of use. If lecturers feel that AI is difficult to learn and has no significant benefit to their teaching methods, then technology adoption will be slow. In addition, (Gess-Newsome et al., 2019) Pedagogical Content Knowledge (PCK) theory asserts that effective teaching requires a balance between content understanding, teaching methods, and the technology used. Without proper training, lecturers may struggle to balance these three aspects in teaching with AI.

Therefore, universities need to provide continuous training and technical support so that lecturers can adapt AI more effectively. That way, AI can be a tool that complements teaching methods without replacing human interaction, which remains the essence of the educational process.

Conclusion

Based on the results of the discussion, artificial intelligence (AI) has had a significant impact on English language learning in higher education, both for students and lecturers. One of the main benefits of AI is the enhancement of students' self-directed learning, where the technology allows them to practice language skills more flexibly with instant feedback. However, the findings also point to a potential dependency on AI that may hinder the development of critical thinking skills as well as students' social interaction in the learning process. If not balanced with direct communication practice, overuse of AI may reduce the effectiveness of natural language learning.

On the other hand, lecturers face challenges in adapting to AI due to lack of training and limited supporting infrastructure. Although AI has the potential to improve teaching effectiveness, many lecturers still find it difficult to integrate this technology optimally. Concerns that AI could diminish their role as educators are also a major barrier to its adoption.

This finding confirms that a balance in the use of AI is essential. Students need to be guided to use AI as a tool, not as a substitute for the thinking process and direct communication. Meanwhile, universities need to provide adequate training and technical support for lecturers so that they can adapt AI without losing the essence of interaction in teaching. With the right approach, AI can be a tool that supports the improvement of the quality of English learning without reducing the role of humans in the educational process.

References

- AbuSahyon, A. S. E., Alzyoud, A., Alshorman, O., & Al-Absi, B. (2023). AI-driven technology and chatbots as tools for enhancing English language learning in the context of second language acquisition: a review study. *International Journal of Membrane Science and Technology*, 10(1), 1209–1223.
- Bani, M., & Masruddin, M. (2021). Development of an Android-based harmonic oscillation pocket book for senior high school students. *JOTSE: Journal of Technology and Science Education*, 11(1), 93-103.
- Alkhudiry, R. (2022). The Contribution of Vygotsky's Sociocultural Theory in Mediating L2 Knowledge Co-Construction. *Theory & Practice in Language Studies (TPLS)*, 12(10).
- Artha, B., Sari, N. P., Sari, U. T., Hadi, A. S., Asri, C. P., & Seta, E. P. M. (2024). Artificial intelligence and English learning: A Narrative Review. *EDUJ: English Education Journal*, 2(2), 44–49.
- Burkhard, M. (2022). Student Perceptions of AI-Powered Writing Tools: Towards Individualized Teaching Strategies. *Proceedings of the 19th International*

- Conference on Cognition and Exploratory Learning in the Digital Age, CELDA 2022, Celda, 73–81. https://doi.org/10.33965/celda2022_202207l010
- Chai, C. S., Koh, J. H. L., & Tsai, C.-C. (2013). A review of technological pedagogical content knowledge. *Journal of Educational Technology & Society*, 16(2), 31–51.
- Chounta, I.-A., Bardone, E., Raudsep, A., & Pedaste, M. (2022). Exploring teachers' perceptions of artificial intelligence as a tool to support their practice in Estonian K-12 education. *International Journal of Artificial Intelligence in Education*, 32(3), 725–755.
- Coe, R., Waring, M., Hedges, L. V., & Ashley, L. D. (2021). *Research methods and methodologies in education*. Sage.
- Duffy, L. N., Stone, G. A., Townsend, J., & Cathey, J. (2022). Rethinking curriculum internationalization: virtual exchange as a means to attaining global competencies, developing critical thinking, and experiencing transformative learning. *SCHOLE: A Journal of Leisure Studies and Recreation Education*, 37(1–2), 11–25.
- Fellows, R. F., & Liu, A. M. M. (2021). *Research methods for construction*. John Wiley & Sons.
- Gess-Newsome, J., Taylor, J. A., Carlson, J., Gardner, A. L., Wilson, C. D., & Stuhlsatz, M. A. M. (2019). Teacher pedagogical content knowledge, practice, and student achievement. *International Journal of Science Education*, 41(7), 944–963.
- Glăveanu, V. P. (2021). *The possible: A sociocultural theory*. Oxford University Press.
- Han, J.-H., & Sa, H. J. (2022). Acceptance of and satisfaction with online educational classes through the technology acceptance model (TAM): The COVID-19 situation in Korea. *Asia Pacific Education Review*, 23(3), 403–415.
- Ismayanti, D., Said, Y. R., Usman, N., & Nur, M. I. (2024). The Students Ability in Translating Newspaper Headlines into English: A Case Study. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 12(1), 108-131.
- Kovalenko, I., & Baranivska, N. (2024). Integrating Artificial Intelligence in English Language Teaching: Exploring the potential and challenges of AI tools in enhancing language learning outcomes and personalized education. *Європейські Соціо-Правові Та Гуманітарні Студії*, 1, 86–95.
- Miao, F., Holmes, W., Huang, R., & Zhang, H. (2021). *AI and education: guidance for policymakers*. Unesco Publishing.
- Masruddin, M., & Munawir, A. (2021). the Efficacy of Treasure Hunt Game With Luwu Local Culture Based in Teaching English Vocabulary and Introducing Cultures Heritages of Luwu At Smpit Al Hafidz Kota Palopo. *Kongres Internasional Masyarakat Linguistik Indonesia*, 204-208.
- Masruddin, Hartina, S., Arifin, M. A., & Langaji, A. (2024). Flipped learning: facilitating student engagement through repeated instruction and direct feedback. *Cogent Education*, 11(1), 2412500.

- Muhajirah, M. (2020). Basic learning theory: behaviorism, cognitivism, constructivism, and humanism. *International Journal of Asian Education*, 1(1), 37–42.
- Oliveira, G., Grenha Teixeira, J., Torres, A., & Morais, C. (2021). An exploratory study on the emergency remote education experience of higher education students and teachers during the COVID-19 pandemic. *British Journal of Educational Technology*, 52(4), 1357–1376.
- Pedro, F., Subosa, M., Rivas, A., & Valverde, P. (2019). Artificial intelligence in education: challenges and opportunities for sustainable development.
- Rane, N., Choudhary, S., & Rane, J. (2023). Education 4.0 and 5.0: Integrating artificial intelligence (AI) for personalized and adaptive learning. Available at SSRN 4638365.
- Sweller, J. (2020). Cognitive load theory and educational technology. *Educational Technology Research and Development*, 68(1), 1–16.
- Tajik, A. (2025). Exploring the role of AI-driven dynamic writing platforms in improving EFL learners' writing skills and fostering their motivation.
- Vaishnav, P. (2024). Current trends and future prospects in English language teaching (ELT). *Asian Journal of Education and Social Studies*, 50(7), 10–9734.
- Walliman, N. (2021). *Research methods: the basics*. Routledge.
- Wang, Q. (2024). AI-driven autonomous interactive English learning language tutoring system. *Journal of Computational Methods in Science and Engineering*, 14727978241296719.
- Wei, L. (2023). Artificial intelligence in language instruction: impact on English learning achievement, L2 motivation, and self-regulated learning. *Frontiers in Psychology*, 14, 1261955.
- Yener, B., & Selcuk, H. (2024). AI-assisted grammar learning: Improving present perfect tense proficiency in EFL students. *The Literacy Trek*, 10(3), 339–361.
- Yilmaz, R., & Yilmaz, F. G. K. (2023). The effect of generative artificial intelligence (AI)-based tool use on students' computational thinking skills, programming self-efficacy, and motivation. *Computers and Education: Artificial Intelligence*, 4, 100147.