




The Role of AI at Pesantren Raudlatul Ulum For Elt Students: Tools Apps, Benefit, and Challenges

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ABSTRACT

This research examines the use of Artificial Intelligence (AI) in English language learning among pesantren students, emphasizing its benefits, challenges, and alignment with the educational and moral values of Islamic boarding schools. Unlike previous studies that focused mainly on students living at home or in formal educational settings, this research explores how AI functions in the pesantren environment, where students balance religious studies and face limited access to digital technology. Using an explanatory mixed-methods approach, data were collected through questionnaires to analyze students' perceptions and followed by interviews to obtain deeper insights. The findings reveal that AI-assisted tools can significantly enhance pronunciation, vocabulary mastery, grammar accuracy, and cultural understanding through interactive learning, instant feedback, and personalized content. Nevertheless, several challenges arise, including students' busy religious schedules, restricted internet access, lack of digital literacy, and a preference for traditional face-to-face instruction. These factors influence the extent to which AI can be effectively implemented. The study concludes that AI should serve as a supportive learning aid rather than a substitute for teachers. A balanced integration that combines modern technology with traditional teaching approaches is essential. Ultimately, the findings provide valuable implications for improving English learning in Islamic boarding schools while maintaining their distinctive educational character.

Keywords: AI, EFL, Islamic boarding school

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INTRODUCTION

The importance of technological innovation in education today is urgent, especially in adapting to increasingly complex global demands where it is underway for young generation (Kostka and Toncelli 2023). One technology that has the potential to be used is Artificial Intelligence (AI). This technology is not just a tool but can optimize the learning process by providing a more personalized and structured learning experience (Yuspita et al, 2023). AI technology can improve learning media that adapts and knows the individual's needs to create appropriate learning (Yuspita and Rizki,2022).

Learning intervention by technology is very needed today since it can be do using the potential of (AI) which is one of the tools that provide various learning that innovate and structure as learners need. In learning English, (AI) is a way of the successful learning activity, where it is providing interactive learning to give significant of student ability such as SIVI, Duolingo, ELSA AI and still many more, that can help students in learning various language proficiency such as pronunciation, vocabulary, and grammar.

Artificial Intelligence (AI) is the power to mimic human intelligence, and in recent years

has made significant progress and penetrated various fields in society. In a literature review article titled "The Role of Artificial Intelligence (AI) in Developing Communication Skills of English Language Learners," it is explained that AI is increasingly being explored as a promising tool in supporting and improving language learning, particularly in the development of students' communication skills. According to (Abimanto and Mahendro 2023) said in research titled "The Effectiveness of Using AI Technology in English Learning," which used mixed methods, showed that the use of AI at UNIMAR AMNI resulted in significant improvements in four English skills: speaking, listening, reading, and writing (Dhanan and Iwan,2023). The Exploring the Role of (AI) Support in Assisting Students' English-Speaking Skills study aimed to analyze the role of AI support in assisting students' English-speaking skills. use descriptive qualitative methods show that English learning through personalization of learning automatic evaluation has a significant contribution by Artificial Intelligent in the aspect of speaking ability, especially In term of vocabulary, grammar and pronunciation. (Pangestu and Suwartono, (2024) AI providing interactive learning experiences and personalized language learners' communication skills has potential to significantly enhance English (R. Gomathi et al,2023)

AI Apps such as Duolingo, Elsa, Cake, and Grammarly as proven to be a transformative tool in education, specifically in learning of language. Its talent to personalize learning experiences and provide automatic evaluations has significantly improved Learners' communication skills cover various aspects, including speaking, listening, reading and writing. Studies highlight its notable impact on aspects such as vocabulary, grammar, and pronunciation. As AI continues to advance, its potential in improving English language skills proficiency and support diverse learners becomes increasingly evident, making it a valuable asset in modern education. Although many researchers said that Artificial intelligence (AI) offers many promising benefits. However, the integration of AI in language learning still requires further attention and development. Raised considering and constraint that important such as the technology infrastructure is limit and expensive costs.

This study aims to identify the use of common (AI) tools in language learning, analyze the impact of AI tools on improving language skills, and identify the challenges faced by boarding school students in the application of AI for English language learning at Raudlatul Ulum Islamic Boarding School. In contrast to previous studies that focused on students living at home, this study specifically highlights the utilization of AI applications to improve the English learning process among boarding school students. The existence of gaps in this research opens up new opportunities for researchers. The novelty of this research lies in the approach that integrates AI with the educational values of Islamic boarding schools, which are known to be strong in religious learning but limited in access to technology. Thus, this research is expected to contribute significantly to the development of the quality of English learning among boarding school students.

METHOD

In this study, the writer applied mixed methods with an explanatory sequential design, emphasizing the importance of the quantitative phase to explain the results obtained and clarify outliers that may not correspond fully to the collected data, followed by a qualitative phase (interviews) aimed at exploring and discussing the quantitative findings, making the term "explanatory" highly relevant.

(Tayon Mohammad Abu Sayed, 2021). The study aimed not only to identify but also to understand students' learning experiences and engagement in learning English using AI-based applications in Islamic boarding schools; therefore, all data were given equal weight, with quantitative data determining levels of intrinsic and extrinsic motivation and qualitative data exploring learners' experiences using AI-based applications and the influence of challenges faced on their participation, allowing the qualitative phase to provide meaningful interpretation (Fitrah Muh, 2024). This research was conducted at Pesantren Raudlatul Ulum of Malang, chosen due to the researcher's accessibility as a student and because the institution requires students to master ICT including AI to face digital-era challenges; the participants were all students of the English Language Department from semesters 1–8, totaling 52

students, focusing on those living in Islamic boarding schools who incorporate AI into daily learning to investigate how AI implementation influences academic experiences. A total of 25 students from three different Islamic boarding schools (Raudlatul Ulum 1–6) were selected using Slovin’s formula to ensure representativeness and statistical reliability, while qualitative data collection employed simple random sampling to provide equal opportunity for selection. The questionnaire used reflected essential concepts related to AI in English language education, supported by semi-structured group interviews¹ to gain deeper understanding, with purposive sampling ensuring participants had relevant knowledge to complement quantitative results (Tarisa and Tri ,2024). Quantitative data were collected online through carefully prepared questionnaires distributed via Google Forms, email, and social media to ensure validity and reliability, while the data analysis used descriptive statistics (mean, median, mode, percentage) to illustrate numerical trends and qualitative analysis to identify themes and meanings from interviews provide a comprehensive understanding of the research findings.

RESULT AND DISCUSSION

This study describes the data collected through interviews of students. It explores *The Role of AI at Pesantren Raudlatul Ulum for ELT Students: Tools/Apps, Benefits, and Challenges* in English language learning. The data were then categorized according to the main themes outlined in the research questions. The results are presented in the form of statistical tables and narrative explanations describing the tools/apps, benefits, and challenges.

1. Use of AI in English Learning

Item	Stetement	Neutral	Agree	Disagree	Strongly Agree	Strongly Disgree
Q1	I use AI-assisted tools (apps) to learn English	36.0	36.0	-	28.0	-
Q2	I know that AI app that can help improve English skills	44.0	40.0	-	12.0	4.0
Q3	Utilizing AI to learn English is more interesting than a conventional method	44.0	36.0	-	20.0	-
Q4	AI can help me understand the grammar in English	56.0	24.0	4.0	16.0	-
Q5	AI provides an interactive learning experience}	32.0	48.0	8.0	12.0	-

The descriptive statistics show that most students have positive perceptions toward the use of AI in English learning. A majority (64%) reported using AI-assisted tools, while 52% acknowledged knowing AI applications that support English skills. Students also viewed AI as more interesting than conventional methods (56%). However, responses regarding AI for grammar support were mostly neutral (56%), indicating limited confidence in its effectiveness. Overall, 60% of students agreed that AI offers an interactive learning experience, confirming its role as an engaging tool in language learning.

(Student1) showed varied perceptions toward the use of AI in learning English. (Student 2) Some, like I, strongly supported AI because it provides instant help, feedback, and flexibility anytime and anywhere. Others, such as Second informant, had heard about the benefits of AI but had not experienced them directlyⁱ. Meanwhile, S3 and S4 expressed neutral views, stating that although AI offers explanations and exercises, they have not felt significant

improvement compared to traditional methods and still prefer direct guidance from teachers. Overall, students recognize AI's potential, but its effectiveness depends on their usage habits and learning preferences.

2. Benefits of Using AI

Item	Statement	Neutral	Agree	Disagree	Strongly Agree	Strongly Disagree
Q1	AI helps me in English pronunciation	36.0	40.0	12.0	12.0	-
Q2	I feel much more confident practicing English with AI than with a human	32.0	40.0	12.0	16.0	-
Q3	I use AI to enrich English vocabulary	40.0	24.0	24.0	-	4.0
Q4	AI can help me understand the cultural context in English learning	60.0	60.0	8.0	4.0	-
Q5	AI can replace the role of English teachers	12.0	28.0	40.0	12.0	16.0
Q6	AI helps facilitate the process of learning English at the boarding	12.0	20.0	40.0	12.0	16.0
Q7	AI makes English learning more efficient and time-saving	56.0	24.0	8.0	8.0	-
Q8	AI provides fast feedback while you learn English	52.0	20.0	16.0	12.0	-
Q9	AI allows students to learn anytime and anywhere	52.0	52.0	-	4.0	4.0
Q10	AI assists English teachers in developing learning material	40.0	40.0	4.0	40.0	-

The results of the questionnaire show that most students have a positive perception of using AI in English learning. A total of 40% agreed and 12% strongly agreed that AI helps with pronunciation, while 40% agreed and 16% strongly agreed that they feel more confident practicing English with AI. AI is also viewed as useful for enriching vocabulary, with 40% agreeing and 24% strongly agreeing. However, understanding cultural context remains uncertain, as 60% of students were neutral. Most students rejected the idea that AI can replace teachers, with 40% disagreeing and 16% strongly disagreeing. AI is considered efficient by 56% agreeing and 24% strongly agreeing, and 52% agreed that AI provides fast feedback and allows learning anytime and anywhere. Regarding support for teachers in developing materials, responses were balanced: 40% agreed, 40% neutral, and 40% disagreed. In summary, these percentages indicate that AI greatly supports English learning, although it is not seen as capable of fully replacing teachers.

(Student 13) Said "AI provides instant answers, interactive exercises, and auto-correction, allowing for faster and more efficient learning. It is beneficial for busy learners and independent learners, being accessible anytime and anywhere through apps or online platforms. With 24/7 availability, students can study freely without depending on class timelines.

3. Challenges When Using AI

Item	Statement	Neutral	Agree	Disagree	Strongly Agree	Strongly Disagree
Q1	AI-enabled technology devices are easily accessible at the boarding school	40.0	44.0	-	16.0	-
Q2	the use of AI requires technological knowledge that is difficult for some students	48.0	20.0	16.0	12.0	4.0
Q3	The number of activities in the boarding school makes it difficult for you to use AI applications to help learn English	52.0	28.0	12.0	8.0	-
Q4	AI is less in line with traditional values in boarding school learning	24.0	52.0	-	20.0	4.0
Q5	HP is an obstacle to the use of AI applications	40.0	40.0	4.0	12.0	12.0
Q6	Laziness is one of the obstacles to the use of AI in Islamic boarding school	20.0	44.0	-	20.0	20.0

The findings reveal several challenges students face when using AI in the boarding school environment. Although AI devices are fairly accessible (**44% agree, 16% strongly agree**), many students still struggle with technological skills, as shown by **48% neutral** and **20% agreeing** that AI requires difficult knowledge. The busy schedule of the boarding school also limits AI use (**52% neutral, 28% agree**), and **52% agree** that AI is less aligned with traditional learning values. Mobile phone restrictions pose another challenge (**40% agree, 12% strongly agree**), and personal motivation also affects AI use, with **44% agreeing** and **20% strongly agreeing** that laziness becomes an obstacle. Overall, students face environmental, cultural, and personal barriers that hinder optimal use of AI for English learning.

(Student 3) Said “In our boarding school, devices such as laptops are available, English students utilize them for learning such as accessing to deepen English. (Student 7) Said: “As an Al-Qolam student, specifically majoring in English, I faced technology issues in the Islamic boarding school, such as Wi-Fi problems, long lines, and low battery, especially when doing AI assignments. “Even though there are good impacts of using AI, there are challenges that I face such as the limitation of technology and to use smartphones. (Stuent 2). The device restriction policy further complicates the situation. Solutions that can be implemented are socialization of the importance of technology as well as a new policy that allows additional devices for students so that they are more optimal in learning”

DISCUSSION

Utilization of Artificial Intelligence in English Language Learning

The trend of increasing use of artificial intelligence (AI) tools in English language learning is increasingly visible. This indicates that AI can be an effective solution for learners to improve their English skills. With various features, such as interactive practice, real-time feedback, and personalized learning approaches, AI provides optimal support in their learning process (Huang Jingshan, 2023). With most students recognizing the potential benefits. The

Previous research conducted has been aligned with this results that said English language skills are enhanced by AI through interactive practice, real-time feedback, and personalized learning.¹⁰ While many are still neutral or undecided about AI applications, a significant number agree that AI was particularly valued in practice pronunciation, word building, and cultural exposure, but there were concerns about the lack of interpersonal interaction. The Previous research conducted has been aligned with this results that said AI was highly appreciated for its role in pronunciation practice, word formation, and cultural exposure, though there were concerns about the absence of interpersonal interaction.

This emphasized the importance of teacher feedback, especially in grammar teaching. AI is also considered an interesting tool that can increase confidence in language practice, although its effectiveness in the Islamic boarding school environment is still limited due to technological limitations and preference for traditional teaching methods. Even though some argue that AI can replace teachers, the common view is to consider it as an additional resource, not a full replacement for human teaching. The findings suggest that the integration of AI in English language learning requires a balanced approach that combines AI-driven efficiency with traditional teacher-led teaching methodology to optimize student output. This is in line with previous research that said the Positive outcomes of AI-powered language learning instruction on EFL learners' learning achievement were also reported (Xu Xiaoqiu, 2023).

Benefits of AI in EFL Learning

Artificial Intelligence (AI) offers various beneficial features in English language learning, which are strongly reflected in students' perceptions. One of the main advantages is AI's ability to deliver quick feedback. A total of 32% of students agreed or strongly agreed that this technology can improve their language skills via instant corrections and interactive exercises. It support by previous research that said generate detail text response and articulate answers to any query are the function of AI. (Kumar Arun, 2023) In addition, AI enables flexible learning, with 52% of respondents claiming its anytime, anywhere accessibility, making it easy for students to study independently without relying on class schedules. Ling Wei also emphasize that enables machines to stimulate human intelligent as one of computer branch is Artificial Intelligent (Wei Ling, 2023). In addition, AI can support English teachers in creating engaging course materials, with 80% of students recognizing the role of AI in structuring content, adjusting difficulty levels, and supplying up-to-date references. In the Islamic boarding school environment, 44% of students agreed that AI-powered technology is easily available, showing that many educational institutions are integrating AI into their learning process. However, challenges remain, as 32% of students find using AI difficult due to technological barriers, indicating the need for training and support. Nonetheless, AI remains a valuable tool that can enhance learning efficiency, encourage independent study, and assist both learners and educators in improving English language skills.

Challenges of utilizing AI at pesantren

Utilizing artificial intelligence (AI) in English language learning in Islamic boarding schools faces a number of challenges that affect its effectiveness. One of the main challenges is the busy schedules of students who are involved in various Islamic boarding school activities. This have been proved by 36% of respondents who agrees or strongly agrees that their busy schedules make it difficult for them to utilize AI optimally. It kontras with previous research that said need for critical thinking skills remain and dependency on AI are challenge in integrate AI in learning (Ka Cecilia et al, 2023). In addition, limited access to technological devices is also a significant obstacle. About 52% of respondents said that problems with mobile phones-such as low specifications, limited internet service, and restrictive policies on the use of devices in Islamic boarding school-had hindered the utilization of AI. Another important factor is the compatibility of AI with traditional Islamic boarding school values. As many as 72% of respondents felt that this technology is not in line with traditional learning methods that emphasize direct interaction between santri and kiai. The previous study shown the challenge to implementation AI are issues related to ethics plagiarism, and academic integrity is limit.¹⁵

In addition, although AI could provide convenience in the learning process, 64% of respondents admitted that laziness was the main barrier to its use, mainly due to the limited time and access to technology in Islamic boarding school. It different with previous study that shown some challenge namely Nevertheless, AI continues to have great potential in supporting English language lessons, provided it is implemented with the right policies. Additional research is needed to provide more flexible access and socialization of the benefits of this technology, so that it can be used by the students.

CONCLUSION

This study reveals that the application of artificial intelligence (AI) in English learning in Islamic boarding schools has great potential to improve students' language skills. AI offers various benefits, such as interactive exercises, real-time feedback, and personalized learning, which can significantly help students improve their pronunciation, word formation, and cultural understanding. In addition, AI also plays a role in creating interesting learning materials and providing flexibility in learning time. However, this study also found several challenges in implementing AI in Islamic boarding schools. Some of the main obstacles include the tight schedule of Islamic boarding school activities, limited access to technological devices, and the lack of compatibility of AI with traditional methods that emphasize direct interaction between santri and kiai. In addition, Islamic boarding school education programs' technology adoption policies and lack of training in utilizing AI also affect its effective use.

Although some santri still show a neutral attitude towards the application of AI, this study emphasizes that AI is not a substitute for teachers, but rather a tool that can support the English learning process if used in balance with traditional teaching methods. With the right set of policies and wider socialization, Artificial intelligence has great potential to be an innovative solution in improving the quality of English learning in Islamic boarding schools. The results of this study provide a significant contribution in understanding how to integrate AI into the Islamic boarding school education sector, as well as opening up opportunities for further research to overcome challenges and maximize the benefits of technology in the language learning process.

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