



Assessing the Influence of Artificial Intelligence Tools on Personalized Reading Practices

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Abstract

This study investigates the impact of Artificial Intelligence (AI) tools on improving reading comprehension, vocabulary acquisition, and reading fluency among two public university students in Indonesia. With the increasing integration of AI in educational settings, this research aims to assess how personalized learning environments provided by AI can enhance students' literacy skills. A mixed-methods approach was employed, combining quantitative data from pre-and post-test scores with qualitative data from student and lecturer interviews. The results indicate significant improvements in reading comprehension, vocabulary acquisition, and reading fluency, with moderate to large effect sizes observed across both institutions. Additionally, qualitative findings reveal that AI tools motivated students, increased engagement, and provided personalized learning experiences. However, challenges such as technological access and infrastructure limitations were identified, particularly at University B, which affected students' ability to engage with the tools fully. The study concludes that while AI tools can significantly improve reading skills, successful implementation requires addressing infrastructure issues and ensuring the cultural relevance of learning materials. The findings suggest that AI should complement traditional pedagogical practices rather than replace them, offering a blended learning approach that supports deeper learning. This research contributes to the growing body of knowledge on AI in education and highlights the importance of adapting AI tools to local contexts to maximize their effectiveness.

Keywords: *Artificial intelligence, reading comprehension, vocabulary acquisition, educational technology, blended learning*

INTRODUCTION

Background

Integrating artificial intelligence (AI) into education has significantly transformed traditional teaching and learning methodologies, particularly in enhancing reading practices through personalized educational experiences. AI-powered tools leverage advanced algorithms to adapt content dynamically, provide real-time feedback, and create tailored learning pathways that cater to individual learner needs and preferences. This personalization is crucial as it allows for a more engaging and

effective learning environment, which is increasingly recognized in contemporary educational discourse. AI-driven educational tools have been shown to enhance self-regulated learning experiences by offering personalized feedback and fostering interactive learning environments. For instance, Namjoo et al. (2023) emphasize that these tools promote critical reflection among students, aligning with findings from other studies that highlight the role of technology in facilitating self-directed learning processes. Furthermore, the ability of AI applications to analyze learner data enables educators to predict performance and provide targeted support, as discussed by Tonbuluğlu (2023). This predictive capability is essential in online education, where timely interventions can significantly impact student success.

Reading is a foundational skill critical to academic success and lifelong learning. Numerous studies have highlighted the benefits of personalized reading practices in enhancing comprehension, engagement, and motivation among learners (Schunk & Zimmerman, 2012; Tomlinson, 2014; Zimmerman & Schunk, 2012). Previous research has primarily focused on traditional personalization methods—such as differentiated instruction and teacher-led interventions—which rely heavily on educators' intuition and manual adjustments (Tomlinson, 2014). While these approaches have demonstrated effectiveness in supporting diverse learners (Schunk & Zimmerman, 2012), they are often time-intensive and difficult to implement at scale.

Recent advancements in artificial intelligence (AI) offer promising alternatives by enabling data-driven personalization that can be efficiently scaled across various educational settings. However, despite growing interest in AI-based tools for reading instruction, there remains a limited understanding of how these technologies compare to traditional methods in terms of improving student outcomes. This study addresses this gap by systematically examining the impact of AI-driven personalized reading practices relative to conventional approaches, thereby contributing new insights into scalable solutions for individualized literacy development.

Importance of Personalized Reading Practices

Personalized reading practices play a crucial role in fostering student engagement and motivation. According to Pardo (2004), effective reading instruction involves teaching decoding and fluency skills and engaging students in personal responses to texts, which can significantly enhance their motivation to read (Pardo, 2004). This is supported by Agler et al. (2021), who found that personality traits, such as openness to experience, can influence reading confidence and motivation, suggesting that personalized approaches can cater to these individual differences to boost engagement (Agler et al., 2021). Additionally, Basham et al. (2016) and Zhang et al. (2020) argue that personalized learning environments, which adapt to the needs of students, can lead to increased motivation and engagement by making learning more relevant and accessible (Basham et al., 2016).

Despite these benefits, there is a significant gap in understanding how AI tools influence reading outcomes across different demographic groups and learning contexts. Studies have demonstrated that AI can reduce reading times for radiologists interpreting chest radiographs, with mean reading times decreasing from 24 seconds to 12 seconds when AI assistance is utilized (Shin et al., 2024). This reduction in reading time suggests that AI can streamline the reading process, potentially allowing for more efficient learning and comprehension. However, the applicability of these findings to educational contexts remains underexplored, particularly concerning how demographic factors may influence the effectiveness of AI tools in reading.

The effects of AI tools on reading outcomes may vary significantly across

different demographic groups. For example, research indicates that inexperienced radiologists benefit more from AI-assisted reading than their experienced counterparts, with performance improvements noted in simultaneous reading scenarios (Lee et al., 2023). This suggests that novice learners might derive more tremendous advantages from AI tools, highlighting the necessity to investigate how factors such as age, prior knowledge, and educational background influence the efficacy of AI in reading education. Moreover, integrating AI in language instruction has shown promising results in enhancing motivation and self-regulated learning among students (Wei, 2023; Y. Zhang, 2024). However, the extent to which these benefits are realized across diverse demographic groups remains unclear. Understanding how AI-mediated instruction interacts with different learner profiles is crucial for optimizing educational outcomes.

Others suggest that excessive dependence on technology can impair individuals' judgment and decision-making abilities (Coiera, 2015). For instance, Ni et al. (2022) argue that over-reliance on databases can diminish independent thought capacity, as users may become conditioned to accept technology-generated outputs without critical evaluation. This phenomenon raises questions about the implications of AI tools in personalized reading practices, where the ability to analyze and interpret texts critically is essential for comprehension and engagement. These contrasting perspectives underscore the need for empirical studies to explore the multifaceted impact of AI tools on personalized reading practices.

Advancements in AI for Reading Instruction

Advancements in AI, such as natural language processing (NLP), machine learning (ML), and adaptive learning algorithms, have enhanced the capabilities of educational tools. For example, NLP technologies enable AI systems to analyze and interpret text, thereby assessing reading comprehension and providing tailored feedback (Wang et al., 2023). Similarly, ML algorithms can identify patterns in learner behavior to predict challenges and recommend specific interventions.

AI tools like digital reading platforms and e-learning applications leverage these technologies to create interactive and engaging learning experiences (Herrera Cano et al., 2023). These tools can track a student's progress, identify strengths and weaknesses, and suggest personalized strategies for improvement (Nitiasih et al., 2022). However, the effectiveness of these tools often depends on factors such as accessibility, user-friendliness, and cultural appropriateness (Goldenthal et al., 2021; Osorio et al., 2024).

Challenges in Implementing AI in Reading Practices

While AI offers promising solutions, its integration into reading education is not without challenges. One primary concern is the digital divide, which limits access to AI tools in underprivileged or rural areas (Talayhan, 2023). Additionally, ethical considerations, such as data privacy and the potential for algorithmic bias, must be addressed to ensure equitable learning opportunities (Haymon & Wilson, 2020; Montrosse-Moorhead, 2023). Another challenge is the lack of teacher training in leveraging AI tools effectively. Many educators feel unprepared to integrate these technologies into their teaching practices, leading to suboptimal implementation and limited impact on student outcomes (Dafa & Tewu, 2023; Hofer et al., 2021; Pozas et al., 2020). Addressing these barriers requires comprehensive research into AI-based reading tools' design, usability, and scalability.

METHODS

Research Design

This study employed a mixed-methods research design (Creswell & Plano Clark, 2023; Plano Clark, 2017; Poth, 2023) to examine the impact of Artificial Intelligence (AI) tools on personalized reading practices at two public universities in Indonesia. The mixed-methods approach was selected to capture the research's quantitative and qualitative aspects, providing a comprehensive understanding of how AI tools affect student learning. The quantitative component utilized a pre-test and post-test design, which measured changes in reading comprehension, vocabulary acquisition, and reading fluency. The qualitative component consisted of interviews, focus group discussions, and classroom observations, allowing in-depth exploration of participants' experiences and perceptions.

Participants

The study involved 187 students from University A and B, the primary respondents for the quantitative analysis. These students were selected based on their enrollment in reading and language courses at both institutions. In addition, ten lecturers from each university participated in the qualitative component, providing valuable insights into how AI tools were integrated into teaching practices and their impact on student engagement and performance. The student sample was diverse regarding academic standing and background, ensuring a broad representation of perspectives regarding using AI tools in learning.

Techniques in Data Collection and Analysis

Data was collected through quantitative and qualitative methods (Creswell & Plano Clark, 2023; Plano Clark, 2017; Poth, 2023). For the quantitative data, a pre-test and post-test were administered to measure the students' reading comprehension, vocabulary, and fluency before and after using the AI tools. The tests were analyzed using paired-sample t-tests to determine any significant changes in performance (Field, 2017). In the qualitative phase, semi-structured interviews, focus group discussions, and classroom observations were employed to gather data on students' and lecturers' experiences with the AI tools. The qualitative data were analyzed thematically, identifying key themes such as motivation, engagement, and challenges associated with using AI in reading practices (Field, 2017). This mixed-methods approach allowed for a comprehensive analysis of the AI tools' effectiveness, combining statistical evidence with rich, contextual insights.

RESULTS AND DISCUSSION

The results of this study gathered from both University A and University B, reveal significant insights into the impact of Artificial Intelligence (AI) tools on personalized reading practices. The analysis presents both quantitative findings from pre-and post-tests and qualitative insights derived from interviews, focus groups, and classroom observations.

Results

Table 1: Pre-test and Post-test Scores of Students at IAIN Palopo and Universitas Negeri Makassar

Variable	Institution	Pre-Test Mean (SD)	Post-Test Mean (SD)	Mean Difference	t-Value	p-Value	Cohen's d
Reading Comprehension	IAIN Palopo	58.4 (10.2)	73.5 (9.4)	+15.1	5.67	<0.01	0.56
	Universitas Negeri Makassar	57.8 (9.8)	72.1 (8.5)	+14.3	5.51	<0.01	0.58
Vocabulary Acquisition	IAIN Palopo	60.3 (11.4)	78.4 (10.2)	+18.1	7.29	<0.01	0.72
	Universitas Negeri Makassar	58.9 (10.1)	74.6 (9.1)	+15.7	6.80	<0.01	0.69
Reading Fluency	IAIN Palopo	65.2 (8.5)	73.0 (7.2)	+7.8	4.12	<0.05	0.58
	Universitas Negeri Makassar	63.9 (7.9)	70.5 (7.4)	+6.6	3.95	<0.05	0.54

Mean (SD): The mean score and standard deviation for the pre-test and post-test.

Mean Difference: The difference between post-test and pre-test means.

t-Value: The t-statistic for the paired-sample t-test comparing pre-test and post-test scores.

p-Value: The significance level of the test.

Cohen's d: The effect size for each measurement indicates the impact of the intervention.

The quantitative data from both institutions were analyzed to assess the effects of AI tools on students' reading comprehension, vocabulary acquisition, and reading fluency. A paired-sample t-test was conducted to compare the pre-and post-test scores of the students from University A and University B. The results demonstrated significant improvements in all measured areas.

Reading Comprehension: Both University A and University B students showed significant improvements in reading comprehension, with an average increase of 15% in comprehension scores after using the AI tools. The t-test revealed a statistically significant difference ($p < 0.01$) in the pre- and post-test scores at both institutions, with a moderate effect size (Cohen's $d = 0.56$ at University A and $d = 0.58$ at University B).

Vocabulary Acquisition: The students from both universities reported notable gains regarding vocabulary acquisition. The average increase in vocabulary scores was 18% at University A and 16% at University B. The statistical analysis confirmed that these improvements were statistically significant ($p < 0.01$), with large effect sizes (Cohen's $d = 0.72$ for University A and $d = 0.69$ for University B).

Reading Fluency: Reading fluency also improved significantly for students in both institutions. Students at University A showed a 12% improvement, while those at University B demonstrated a 10% improvement in fluency. This difference was found to be statistically significant ($p < 0.05$) with a moderate effect size (Cohen's $d = 0.58$ at University A and $d = 0.54$ at University B).

These findings suggest that using AI tools significantly enhanced students' reading abilities at both University A and University B, particularly in reading comprehension, vocabulary acquisition, and fluency.

Qualitative Analysis

The qualitative analysis, which included data from interviews, focus groups, and classroom observations at both institutions, provided deeper insights into the students' and lecturers' experiences with AI tools. Several key themes emerged across both University A and University B:

Motivation and Engagement

Students from both University A and University B reported that the use of AI tools significantly enhanced their motivation to read. The gamified features embedded within these tools such as progress tracking, rewards, and adaptive challenges played a crucial role in sustaining student interest and fostering a sense of accomplishment. Many students described feeling proud when they earned badges or completed reading challenges, which contributed to their ongoing engagement with the material. For example, one student from University A shared, *"I felt motivated because the app showed me my progress, and I could challenge myself to read more."* Similarly, a student from University B remarked on how *"the badges and challenges made reading more enjoyable,"* likening the experience to playing a game where winning rewards was particularly satisfying. These responses suggest that gamification elements not only make reading activities more appealing but also help maintain consistent participation among students.

Technological Accessibility

Despite these positive outcomes related to motivation and engagement, several technological barriers were identified at both universities. Access issues primarily revolved around device availability and internet connectivity. At University B in particular, some students lacked personal devices such as smartphones or tablets necessary for accessing the AI-assisted reading applications. This limitation hindered their ability to fully participate in assigned activities outside class hours; as one student explained: *"I didn't have my own phone, so sometimes I couldn't access the app during the week."* Meanwhile at University A, intermittent internet connectivity posed significant challenges for consistent tool usage. Students expressed frustration when technical difficulties interrupted their learning process for instance: *"The app would freeze sometimes because of the internet connection."* These findings highlight that while AI tools offer substantial benefits for personalized learning experiences, infrastructural limitations can impede equitable access.

Pedagogical Integration

Lecturers at both institutions emphasized that AI-based reading tools served best as supplements rather than replacements for traditional classroom instruction. They acknowledged that while these technologies provided valuable opportunities for

individualized practice outside class time enabling students to work at their own pace they could not substitute essential aspects of face-to-face teaching such as guided analysis or group discussion of complex texts. As articulated by a lecturer from University B: *“The app helps students practice on their own but I still need to guide them through complex texts in class.”* Likewise, an instructor from University A noted: *“AI tools are a great supplement but they are not enough on their own; we need to engage students with deeper analysis and discussion in class.”* This perspective underscores educators’ belief in maintaining an integrated approach where technology enhances but does not replace the human element central to effective literacy instruction.

Cultural Relevance and Content Preferences

Another important theme emerging from student feedback was the desire for greater cultural relevance within AI-generated content selections. Students across both universities expressed preferences for texts aligned with local cultural values or religious beliefs a factor they felt would increase engagement further by making materials more relatable and meaningful. At University A specifically, participants indicated stronger interest when readings reflected aspects of their culture or religion; one commented: *“It would be better if the texts were more related to our culture and religion.”* Similarly at University B there was enthusiasm for stories rooted in local traditions with one respondent stating: *“I enjoy reading more when texts are about things I can relate to like local stories or traditions.”* These insights point toward opportunities for future development of AI-driven educational resources tailored specifically toward diverse learner backgrounds.

Comparison Between University A and University B

While the results from both University A and University B were similar in terms of improvements in reading comprehension, vocabulary, and fluency, there were some differences in the challenges. The technological barriers were more pronounced at University B, where students reported a higher frequency of device and connectivity issues than University A. This suggests that while the impact of AI tools was generally positive at both institutions, infrastructure and access to technology remain critical factors influencing their effectiveness.

Both institutions showed similar trends in motivation and engagement, with students expressing increased interest in reading due to the interactive and gamified features of the AI tools. However, both groups highlighted the need for more culturally relevant content to better engage students in their reading practices.

Discussion

This study aimed to explore the impact of Artificial Intelligence (AI) tools on personalized reading practices among students at University A and University B. The results from both the quantitative and qualitative analyses provide strong evidence of the positive effects of AI tools on students' reading comprehension, vocabulary acquisition, and reading fluency. The findings also offer insights into the factors influencing the effectiveness of these tools and the challenges faced by both students and educators.

Impact of AI Tools on Reading Outcomes

The quantitative results significantly improved reading comprehension, vocabulary acquisition, and reading fluency at University A and University B.

Students at both institutions showed notable gains in their post-test scores compared to their pre-test results, particularly in vocabulary acquisition and reading comprehension. These improvements align with existing research suggesting that AI-based tools can enhance language learning by providing personalized and adaptive learning experiences Wei (2023). The moderate to large effect sizes (Cohen's d ranging from 0.54 to 0.72) further indicate that the intervention improved students' reading abilities.

Both institutions showed similar patterns in the results, with slightly higher improvements in reading comprehension and vocabulary acquisition at University A. This could be attributed to each university's different demographic and educational contexts. The increased vocabulary gains at University A might reflect a greater focus on vocabulary learning within the AI tool's design or the curriculum at that institution. These results also suggest that AI tools effectively support developing receptive (comprehension) and productive (vocabulary) skills, which is crucial for overall language proficiency.

Student Engagement and Motivation

The qualitative data revealed that students at University A and University B experienced increased motivation and engagement due to using AI tools. The gamified features of the AI platform, such as rewards, progress tracking, and adaptive challenges, were particularly highlighted as factors that kept students engaged in the learning process. This finding is consistent with previous research, showing that gamification can enhance student motivation, particularly in language learning contexts (Ni et al., 2022). Students reported feeling a sense of achievement when completing reading challenges and receiving badges, which boosted their confidence and encouraged continued participation.

The sense of agency fostered by AI tools also contributed to heightened motivation. Students could progress at their own pace, addressing their specific learning needs. This autonomy in learning, facilitated by AI's personalized approach, allowed students to take ownership of their reading development, which is known to lead to higher levels of intrinsic motivation (Basham et al., 2016). Both University A and University B students expressed satisfaction with the adaptive nature of the tools, as they felt the system provided content that was neither too easy nor too difficult, promoting a manageable challenge that was motivating.

Technological Accessibility and Infrastructure Challenges

Despite the positive effects of AI tools, students at both University A and University B faced challenges related to technological access, which impacted the overall effectiveness of the intervention. At University B, many students reported device availability and internet connectivity issues, limiting their ability to fully engage with the AI tools. This is consistent with findings from previous studies that highlight the digital divide as a significant barrier to the effective implementation of educational technologies, particularly in developing regions (Herrera Cano et al., 2023).

The technological barriers at University B were more pronounced, suggesting that improving access to devices and reliable internet infrastructure is crucial for maximizing the potential of AI tools in education. This also indicates that educational technology implementations must be accompanied by adequate infrastructure to ensure equal opportunities for all students to benefit from these advancements. At University A, while some students faced similar issues, the overall impact of the AI

tool was less hindered, possibly due to better access to devices and a more stable internet connection at the institution.

Complementary Role of AI Tools and Traditional Pedagogy

Both University A and University B lecturers emphasized the importance of using AI tools as a supplement to traditional teaching methods, rather than replacing face-to-face instruction. This aligns with findings from previous research, which suggests that blended learning approaches, combining both AI tools and traditional pedagogical strategies, are more effective in enhancing learning outcomes (Nitiasih et al., 2022). Lecturers at both universities expressed that while AI tools provided personalized reading practice, they could not replace the depth of discussion and critical thinking fostered through in-person interaction and guided instruction.

This complementary role of AI in the classroom is significant because it highlights that the most effective use of educational technology lies in its integration with existing instructional practices, not in isolation. For example, while AI can facilitate individualized practice and immediate feedback, educators remain essential in guiding students through complex texts and encouraging deeper analysis and critical thinking. University A and University B lecturers noted that the AI tools worked best when paired with classroom discussions and activities, reinforcing the need for a balanced approach that leverages the strengths of technology and traditional teaching methods.

Cultural Relevance of Learning Materials

An interesting finding from the qualitative analysis was the students' desire for more culturally relevant content within the AI tools. This preference was voiced by students from both University A and University B, who expressed that learning materials that reflected their cultural context would enhance their engagement and comprehension. This finding echoes previous research emphasizing the importance of cultural relevance in educational content, which has been shown to increase student motivation and improve learning outcomes (Talayhan, 2023). Culturally relevant materials resonate with students by making the content more relatable and meaningful, enhancing intrinsic motivation and academic performance.

Students from University A, in particular, highlighted the importance of including materials aligned with their religious and cultural values. This underscores the necessity of adapting AI tools to meet the specific needs of diverse student populations. To optimize the effectiveness of AI-based reading tools, developers and educators should prioritize culturally responsive content that reflects the backgrounds and interests of students.

CONCLUSION

This study has provided valuable insights into the impact of Artificial Intelligence (AI) tools on personalized reading practices among students at University A and University B. The findings demonstrate that AI tools significantly enhance students' reading comprehension, vocabulary acquisition, and fluency. These improvements were observed across both institutions, underscoring the potential of AI tools to provide personalized and engaging learning experiences. The positive impact on student motivation and engagement, as revealed by the qualitative data, further emphasizes the effectiveness of AI tools in fostering a more active and self-directed learning environment.

Importance of the Study

The importance of this study lies in its contribution to the ongoing discourse on the integration of AI in education, particularly in the context of reading and language learning. While AI's role in personalized education is increasingly recognized, this study adds depth to the literature by examining how AI tools influence critical aspects of reading—comprehension, vocabulary, and fluency—in diverse educational settings. By focusing on two institutions in Indonesia, University A and University B, this research provides a culturally relevant and context-specific exploration of AI tools in improving literacy skills. This is particularly important given the growing emphasis on educational technology in Southeast Asia, a region where technological infrastructure and pedagogical approaches vary significantly.

The study's findings also highlight the significant role of student motivation and engagement, demonstrating that AI tools can be powerful in fostering intrinsic motivation and learner autonomy. Moreover, as emphasized by the lecturers, the complementary nature of AI tools to traditional teaching methods suggests a balanced approach to education where technology supports, rather than replaces, conventional pedagogy. This reinforces the idea that AI can be effectively integrated into the classroom to enhance—not disrupt—the learning process.

Suggestions

Based on the findings, the following suggestions are offered for future research and practice:

Further Investigation into Long-Term Impacts: Future studies should explore the long-term effects of AI tool use on reading and language development. While this study focused on short-term improvements, understanding the sustained impact of AI tools over time will provide more comprehensive insights into their long-term educational benefits.

Expansion of Technological Infrastructure: Educational institutions should invest in improving access to technology and internet infrastructure, particularly in developing regions. This study found that technological barriers significantly impacted student participation, particularly at University B. Ensuring equitable access to devices and reliable internet will ensure that all students can benefit from AI tools.

Culturally Relevant Content Development: Developers of AI tools should prioritize including culturally relevant and context-specific content. This study highlighted students' desire for learning materials that reflect their cultural backgrounds, which could enhance engagement and academic performance. Tailoring AI tools to meet the diverse cultural needs of students can increase the tools' effectiveness in fostering learning.

Blended Learning Approaches: Educators are encouraged to adopt a blended learning approach integrating AI tools with traditional classroom activities. This study found that AI tools are most effective when combined with face-to-face instruction. Therefore, training educators to use AI tools with conventional teaching methods will help maximize their potential in promoting deeper learning and critical thinking.

Limitations of the Study

Despite the valuable contributions of this research, several limitations must be acknowledged:

Sample Size and Generalizability: Although the study included a sufficient number of students and lecturers, the findings are based on two institutions in Indonesia. While substantial, the sample size of 187 students and ten lecturers may not

fully represent broader regional or global contexts. Future research could expand the sample size and include a more comprehensive range of educational institutions to improve the generalizability of the findings.

Technological Barriers: While this study highlighted the role of technological access as a limitation, the extent to which this factor affects the results was not comprehensively measured. Further research could investigate how different levels of access to technology impact the effectiveness of AI tools across various regions and student populations.

Short-Term Evaluation: The study focused on a short-term evaluation of AI tool use. A more in-depth longitudinal study would offer richer insights into the sustained impact of AI tools on reading and language development.

Implications for the Advancement of Knowledge

This study contributes to the growing body of knowledge on the use of AI in education, particularly in language and literacy development. The findings highlight the potential of AI tools to enhance reading skills by providing personalized, engaging, and adaptive learning experiences. The positive outcomes observed in both University A and University B support the notion that AI can play a critical role in addressing the diverse learning needs of students.

Additionally, the study emphasizes the importance of infrastructure, content relevance, and pedagogy in successfully integrating AI tools into educational practices. Educators, policymakers, and technology developers must carefully consider these factors to ensure that AI tools are used effectively and equitably. The findings also point to the need for ongoing research into the long-term effects of AI in education and the continued development of culturally relevant and accessible educational technologies. In conclusion, this study has demonstrated that AI tools are a promising addition to educational practices, particularly in enhancing reading skills. However, to fully realize their potential, efforts must be made to address technological access, ensure cultural relevance, and foster the integration of AI tools with traditional teaching methods. AI can contribute to a more personalized, inclusive, and engaging learning experience for students worldwide through such efforts.

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