
Enhancing Reading Skills in ESL Learners through Google's Read Along: A Study

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Abstract: This study investigates the integration of an Artificial Intelligence (AI) tool, particularly Google's Read Along (Bolo), in enhancing reading skills among English as a Second Language (ESL) learners. Utilizing a quantitative research design, the study evaluates the impact of AI-assisted interventions on various key reading competencies, including comprehension, vocabulary acquisition, phonemic awareness, and overall learner engagement. Data were collected through pre- and post-intervention assessments alongside detailed learner feedback, revealing significant advancements in reading proficiency. The findings demonstrate that the AI tool, by offering personalized and adaptive learning experiences, contributes to measurable comprehension and vocabulary retention improvements. Additionally, the use of AI supports the development of phonemic awareness, which is crucial for ESL learners' pronunciation and fluency. Learners expressed heightened engagement and motivation, facilitated by the interactive features of the AI tool, which tailored reading exercises to individual learning paces and interests. This research underscores the transformative potential of AI in English Language Teaching (ELT), suggesting that AI tools like Read Along (Bolo) can provide significant pedagogical benefits. The study also highlights the adaptability and scalability of AI-driven interventions, positioning them as powerful allies in addressing the diverse needs of ESL learners.

Keywords: Artificial Intelligence, Google's Read Along, ESL learners, and Pedagogy

Introduction: The rapid advancement of technology has brought about a paradigm shift in educational practices, significantly impacting traditional methodologies in English Language Teaching (ELT). Among the core skills of language acquisition—listening, speaking, reading, and writing—reading stands out as a foundational skill crucial for ESL learners to achieve linguistic proficiency. Reading plays a pivotal role in vocabulary expansion,

comprehension of textual information, and the cultivation of critical thinking skills (Grabe, 2009). Despite its centrality, the effective teaching of reading skills continues to face significant challenges, including limited access to engaging, age-appropriate, and skill-level-specific materials, as well as diverse learner needs that traditional methods often fail to address.

The integration of technology in education has opened new avenues for addressing these challenges. Digital tools provide opportunities for interactive learning, and their accessibility has made it possible to deliver personalized solutions to a wider audience. However, traditional digital platforms are often limited in their ability to offer personalized, adaptive feedback—a critical element for fostering engagement and facilitating skill acquisition. Thus, this is where Artificial Intelligence (AI) emerges as a transformative solution, enabling the development of learning environments that cater to individual learner needs through advanced algorithms and real-time adaptability (Godwin-Jones, 2020).

AI applications in education have shown promising results in Natural Language Processing (NLP) and speech recognition, which enable tools to analyze learner input and provide targeted feedback. For instance, tools like Duolingo and Grammarly have successfully demonstrated AI's potential to improve language proficiency by offering real-time corrections and personalized exercises. However, these tools often focus on general language skills rather than specific components like reading (Li & Zhu, 2021). Consequently, there is a growing need for research that examines AI's role in developing targeted skills such as reading comprehension, vocabulary acquisition, and phonemic awareness, particularly for ESL learners.

This study investigates the application of Google's Read Along, a multimedia AI platform, in enhancing the reading skills of ESL learners. Read Along employs speech recognition technology to listen to learners as they read aloud, providing instant feedback to help them correct mispronunciations and improve fluency. Its gamified interface, featuring interactive stories and progress tracking, fosters an engaging learning environment that motivates learners to participate actively. Additionally, Read Along's ability to adapt to the user's reading level and interests ensures that the content remains relevant and challenging, thereby supporting sustained learning.

The significance of this research lies in its focus on the pedagogical implications of integrating AI in ELT. While previous studies have highlighted the potential of AI in language learning (Grabe, 2009; Godwin-Jones, 2020), few have examined its impact on reading skills in a systematic and quantitative manner. By employing a quantitative research design, this paper aims to evaluate the effectiveness of Read Along in improving reading proficiency among ESL learners. Specifically, it investigates the tool's impact on comprehension, vocabulary acquisition, phonemic awareness, and engagement levels, providing educators with evidence-based insights into how AI can complement traditional teaching methods. Furthermore, the study addresses the broader implications of AI

integration in education, including accessibility, scalability, and teacher-student dynamics. AI tools like Read Along can potentially bridge gaps in resource-limited settings by providing learners with consistent, high-quality instruction without the need for constant teacher intervention. However, their effectiveness depends on thoughtful implementation and alignment with pedagogical goals, as well as ongoing evaluation to ensure that they meet learners' needs effectively (Li & Zhu, 2021).

Literature Review:

Importance of Reading Skills in ELT: Reading skills serve as a cornerstone in English Language Teaching (ELT), particularly for learners acquiring English as a second language (ESL). Reading not only facilitates vocabulary acquisition but also strengthens comprehension, analytical skills, and overall cognitive development (Grabe, 2009). It enables learners to engage with authentic texts, which is vital for academic and professional growth. However, traditional approaches to teaching reading often fail to address the diverse needs of learners. Factors such as lack of motivation, culturally irrelevant materials, and inadequate feedback mechanisms contribute to the ongoing challenges faced by educators (Anderson, 2016). Therefore, innovative strategies are required to bridge these gaps and create an inclusive learning environment.

This research underscores the importance of incorporating multimedia tools and adaptive learning methods into ELT to address these challenges. Studies by Day and Bamford (1998) suggest that extensive reading programs, when combined with engaging content, have a positive impact on learners' reading fluency and confidence. Moreover, integrating technology into reading instruction can enhance accessibility and engagement, especially for learners with varied linguistic and cultural backgrounds (Renandya & Jacobs, 2016). These findings highlight the need for tools that support skill acquisition and foster learner autonomy and motivation.

AI in Language Learning: Artificial Intelligence (AI) has emerged as a transformative force in education, particularly in language learning. AI-driven platforms excel in creating interactive and immersive learning environments. For instance, NLP-powered applications analyze learner inputs and adapt content to individual proficiency levels. This adaptability ensures that learners are neither overwhelmed by complexity nor disengaged by overly simplistic material (Zawacki-Richter et al., 2019). Furthermore, the incorporation of gamification elements, such as badges and progress tracking, has been shown to enhance learner motivation and retention (Dörnyei, 2020). These features make AI tools particularly suited for addressing the challenges of reading instruction, such as varying levels of comprehension and engagement among learners.

Despite these advancements, the integration of AI in ELT is not without challenges. Ethical concerns regarding data privacy, biases in algorithmic decision-making, and the potential over-reliance on technology are critical issues that need to be addressed (Holmes et al., 2019). Additionally, there is a need for empirical studies that evaluate the effectiveness

of AI tools in specific pedagogical contexts, particularly in fostering reading skills among ESL learners.

Google's Read Along as a Pedagogical Tool: Google's Read Along (formerly Bolo) represents a significant step forward in leveraging AI to enhance reading skills. Designed as a multimedia application, Read Along employs speech recognition technology to provide instant feedback on learners' pronunciation and fluency. Its gamified interface, featuring interactive stories and reward-based progress tracking, creates an engaging and motivating learning environment (Google, 2020). Read Along's ability to adapt to individual learner needs sets it apart from traditional reading tools. By analyzing learners' reading patterns and adjusting content difficulty accordingly, the application ensures that the material remains both challenging and accessible. This personalization is particularly beneficial for ESL learners, who often require tailored support to address specific linguistic and cultural challenges (Rajendran & Yunus, 2021). Additionally, the application's offline functionality enhances its accessibility in low-resource settings, making it a valuable tool for bridging educational gaps.

Empirical studies have begun to explore the impact of Read Along on reading proficiency. A recent study by Kumar et al. (2022) found that learners using the application demonstrated significant improvements in vocabulary acquisition and reading comprehension compared to those relying on traditional methods. The study also highlighted the role of interactive feedback in promoting learner engagement and self-efficacy. These findings align with the broader literature on AI-driven learning tools, underscoring their potential to transform ELT practices. However, the use of AI tools like Read Along has limitations. Critics argue that the reliance on automated feedback may reduce opportunities for teacher-learner interaction, which is essential for developing higher-order thinking skills (Anderson, 2016). Additionally, there is a risk that learners may become overly dependent on technology, potentially hindering the development of independent learning strategies (Li & Zhu, 2021). These concerns highlight the need for a balanced approach that integrates AI tools with traditional teaching methods to maximize their pedagogical impact.

Methodology:

Research Design: The study utilized a quantitative research design to evaluate the impact of Google's Read Along on enhancing the reading skills of English as a Second Language (ESL) learners. This design was chosen because it can establish causal relationships between the intervention and outcomes, ensuring measurable and objective results. The research incorporated a pre-test and post-test control group approach to assess the effectiveness of AI integration. This approach allowed for comparison between participants exposed to the AI tool and those who continued with traditional reading methods, providing robust evidence of the tool's pedagogical impact.

Participants: Participants were 60 intermediate-level ESL learners aged 15–20, recruited from a language institute in a metropolitan area. Stratified random sampling was employed

to ensure a representative sample based on age, gender, and baseline proficiency levels. Participants were divided into two groups:

- **Experimental Group (n=30):** Used Google's Read Along for reading practice during the intervention period.
- **Control Group (n=30):** Engaged in traditional, teacher-led reading activities using textbooks and printed materials.

The inclusion criteria required participants to have a basic understanding of English and consistent access to a smartphone or tablet. Exclusion criteria included individuals with visual or auditory impairments that might hinder their interaction with the application. Informed consent was obtained from all participants and their guardians (for minors) before the commencement of the study.

Instruments:

Pre- and Post-Tests: A standardized reading comprehension test, validated by previous studies, was used to evaluate participants' skills. The test assessed four key areas: comprehension, vocabulary acquisition, phonemic awareness, and fluency. Scores ranged from 0 to 100, with higher scores indicating better proficiency.

Engagement Survey: A Likert-scale questionnaire assessed participants' engagement levels during the intervention. Questions measured aspects such as motivation, enjoyment, and perceived usefulness of the tool.

Observation Checklist: Instructors used a structured checklist to monitor learner behaviour and participation during reading sessions. The checklist focused on factors like time spent on tasks, interaction with the tool, and completion rates.

Procedure: The study was conducted over eight weeks in a controlled classroom setting to minimize external variables. The procedure included the following phases:

Pre-Intervention Phase:

Orientation Session: Participants in the experimental group were introduced to Google's Read Along, including its features and usage guidelines. Control group participants were briefed on the traditional reading activities they would follow.

Pre-Test Administration: All participants completed a baseline assessment to measure their initial reading proficiency.

Intervention Phase (Weeks 2–7):

Experimental Group: Participants used Read Along for 30-minute sessions five days a week. The AI tool provided tailored reading passages, instant feedback on pronunciation,

and interactive quizzes to reinforce comprehension. Gamification elements, such as earning stars and badges, were incorporated to boost engagement.

Control Group: Participants engaged in teacher-led reading sessions, which included reading aloud, discussing textual content, and answering comprehension questions. Teachers provided individualized feedback when necessary, replicating traditional classroom dynamics.

Post-Intervention Phase:

Post-Test Administration: At the end of Week 8, participants completed the same standardized test administered during the pre-test phase to measure changes in reading proficiency.

Engagement Survey: Participants in both groups responded to the engagement survey, providing insights into their experiences with the respective methodologies.

Data Analysis: The collected data were analyzed using statistical methods to ensure accuracy and reliability:

Descriptive Statistics: Used to calculate mean scores, standard deviations, and percentages for pre-test and post-test results, as well as survey responses.

Inferential Statistics: A paired t-test was conducted to compare pre- and post-test scores within each group, while an independent t-test assessed differences between the experimental and control groups. Statistical significance was set at $p < 0.05$.

Ethical Considerations: The study adhered to ethical research practices, ensuring the confidentiality and anonymity of participants. Informed consent forms included details about the study's purpose, procedures, potential risks, and benefits. Participants were allowed to withdraw at any time without penalty. The research protocol was reviewed and approved by the institute's ethics committee.

Results:

Pre- and Post-Test Scores:

Table: 1 Pre- and Post -Test scores on the development of Reading skills

Group	Mean Pre-Test Score	Mean Post-Test Score	Improvement
Experimental Group	60	85	25
Control Group	58	70	12

Detailed Analysis of Reading Skills:

Table – 2 – Detailed analysis and score of Reading skills

Reading Skills	Pre-Test Mean (Experimental)	Post-Test Mean (Experimental)	Pre-Test Mean (Control)	Post-Test Mean (Control)
Comprehension	62	88	59	72
Vocabulary	58	83	56	70
Phonemic Awareness	60	84	57	71
Engagement	64	91	60	75

A t-test revealed a statistically significant difference in the improvement of the experimental group compared to the control group ($p < 0.05$).

Discussion: This study has shown that integrating Google’s Read Along into English Language Teaching (ELT) practices can significantly enhance ESL learners’ reading skills. The results demonstrate notable improvements in comprehension, vocabulary acquisition, phonemic awareness, and learner engagement within the experimental group compared to the control group. These findings align with prior research on the role of Artificial Intelligence (AI) in personalized education and open avenues for its broader application in language learning. This includes the implications, strengths, limitations, and broader pedagogical applications of the findings.

Significance of AI-Driven Reading Tools in ELT: AI tools like Google’s Read Along have proven particularly effective in addressing the challenges ESL learners face. Traditional methods of teaching reading often lack the capacity to provide instant, personalized feedback. Such feedback is critical for learners to correct errors in real time and reinforce understanding, especially when dealing with aspects like pronunciation and fluency. Read Along’s use of speech recognition technology bridges this gap, offering learners a dynamic learning environment that evolves with their progress.

The significant improvement in reading comprehension and vocabulary scores among the experimental group underscores AI’s ability to cater to individual learning needs. ESL learners often come from diverse linguistic and cultural backgrounds with varying levels of proficiency. Read Along adapts to these differences by customizing content to match each learner’s level, thus ensuring that no learner feels left behind or overwhelmed.

Moreover, the gamification of learning—through rewards, interactive stories, and progress tracking—plays a crucial role in enhancing motivation. Motivation is a well-documented determinant of successful language acquisition (Dörnyei, 2020). By making reading activities engaging and rewarding, Read Along fosters a positive attitude toward reading, which is essential for sustained learning.

Key Improvements Observed:

Reading Comprehension: Reading comprehension scores saw the highest improvement among learners in the experimental group. This can be attributed to Read Along's interactive feedback mechanism, which helps learners understand the context and meaning of unfamiliar words or phrases. As learners read aloud, the application provides corrective cues, ensuring that errors are addressed immediately. This aligns with the findings of Kumar et al. (2022), who highlighted the importance of interactive feedback in developing comprehension skills.

Vocabulary Acquisition: The significant gains in vocabulary scores suggest that learners benefited from the application's exposure to varied reading materials. Vocabulary growth in ESL learners is often impeded by limited exposure to diverse lexical items in traditional settings. Read Along addresses this by incorporating a wide array of age-appropriate and culturally diverse texts, thus broadening learners' lexical range.

Phonemic Awareness: Phonemic awareness, which is crucial for accurate pronunciation and fluency, also showed marked improvement. The AI tool's ability to detect and correct mispronunciations in real time ensures that learners develop confidence in their speaking abilities, which further reinforces their reading skills. This finding aligns with Zawacki-Richter et al. (2019), who emphasized the role of AI in improving phonemic accuracy through repetition and feedback.

Learner Engagement: Engagement levels, as reported in the survey, were significantly higher among the experimental group. The interactive and gamified nature of the application kept learners motivated, which is a critical factor in language acquisition. The application's ability to track progress and reward learners creates a sense of achievement, encouraging consistent participation.

Broader Pedagogical Implications: The study's findings highlight the transformative potential of AI tools in ELT. Traditional teaching methods often struggle to cater to the diverse needs of ESL learners due to constraints such as large class sizes, limited resources, and varying proficiency levels. AI tools like Read Along address these challenges by providing personalized, scalable, and cost-effective solutions.

Personalization and Adaptability: One of the key advantages of AI in ELT is its ability to personalize learning. Read Along adapts to individual learners' needs by analyzing their reading patterns and tailoring content accordingly. This ensures that learners are neither under-challenged nor overwhelmed, creating an optimal learning environment. Such adaptability is particularly valuable in multicultural classrooms, where learners may have different levels of exposure to English.

Scalability and Accessibility: AI tools have the potential to bridge educational gaps in resource-limited settings. Read Along's offline functionality makes it accessible to learners in areas with limited internet connectivity. This aligns with global efforts to promote equitable education by leveraging technology to reach underserved populations.

Teacher-Student Dynamics: The integration of AI in classrooms does not replace the role of teachers but complements it. While AI tools excel at providing personalized feedback and tracking progress, teachers play a crucial role in guiding learners, addressing complex questions, and fostering critical thinking. By automating routine tasks such as error correction, AI tools free up teachers' time, allowing them to focus on higher-order pedagogical activities.

Strengths of the Study: This study's primary strength lies in its quantitative approach, which provides measurable evidence of the effectiveness of AI tools in developing reading skills. The use of pre- and post-tests ensured that improvements could be accurately quantified, while the engagement survey offered insights into learners' perceptions of the tool. The inclusion of a control group allowed for a direct comparison, strengthening the validity of the findings.

Additionally, the study contributes to the growing body of literature on AI in education by focusing on a specific skill—reading—rather than general language acquisition. This targeted approach provides actionable insights for educators seeking to integrate AI into their teaching practices.

Limitations and Areas for Improvement: Despite its strengths, the study has certain limitations that should be addressed in future research. First, the sample size of 60 participants limits the generalizability of the findings. A larger sample size across multiple institutions would provide a more comprehensive understanding of AI's impact on diverse learner populations.

Second, the study's duration was relatively short. Language acquisition, particularly reading proficiency, is a gradual process that requires sustained effort over time. Longitudinal studies would provide deeper insights into the long-term effects of AI-assisted learning.

Third, while the study focused on the effectiveness of Read Along, it did not explore potential challenges learners may face while using the application, such as technical issues, dependency on technology, or resistance to digital tools. Future research should examine these factors to provide a balanced perspective.

Finally, the study did not account for variables such as learners' socioeconomic backgrounds, prior exposure to technology, or initial proficiency levels, all of which could influence the effectiveness of AI tools. Including these variables in future studies would enhance the robustness of the findings.

Conclusion: This study underscores the transformative potential of Artificial Intelligence in English Language Teaching, particularly in developing reading skills among ESL learners.

The integration of AI tools like Google's Read Along has demonstrated significant improvements in comprehension, vocabulary acquisition, phonemic awareness, and learner engagement. The findings reveal that AI-driven platforms can serve as effective supplements to traditional teaching methods, offering personalized, adaptive, and engaging learning experiences that cater to diverse learner needs.

By employing a quantitative research design, this study provides robust evidence of the pedagogical value of AI tools in ELT. The experimental group's marked improvement over the control group highlights the efficacy of Read Along in fostering reading proficiency. Its interactive and gamified approach not only enhances skill acquisition but also promotes learner autonomy and motivation, key factors for sustained academic growth. However, the study also identifies challenges that warrant further exploration. Issues such as accessibility in resource-limited settings, potential over-reliance on technology, and ethical concerns surrounding data privacy must be addressed to maximize the benefits of AI integration in education. Future research should focus on developing inclusive strategies that ensure equitable access to AI tools and exploring their long-term impact on learning outcomes.

The broader implications of this study extend beyond the classroom, emphasizing the need for collaboration among educators, policymakers, and technology developers to harness the full potential of AI in education. By bridging gaps in traditional teaching methodologies and creating inclusive, learner-centered environments, AI has the potential to revolutionize language education. This research contributes to the growing body of literature advocating for the thoughtful integration of AI in ELT, paving the way for a more dynamic, personalized, and efficient learning environment. By examining how AI tools can enhance teaching and learning experiences, this study underscores the potential for AI to complement traditional methods, offering personalized support to instructors and students.

Works Cited:

- Anderson, N. J. (2016). *Exploring second language reading: Issues and strategies*. Cambridge University Press.
- Day, R. R., & Bamford, J. (1998). *Extensive reading in the second language classroom*. Cambridge University Press.
- Dörnyei, Z. (2020). *Motivational strategies in the language classroom*. Cambridge University Press.
- Godwin-Jones, R. (2020). Emerging technologies for language learning. *Language Learning & Technology*, 24(2), 4–15.
- Google. (2020). *Read Along by Google*. Retrieved from <https://readalong.google.com>
- Grabe, W. (2009). *Reading in a second language: Moving from theory to practice*. Cambridge University Press.
- Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign.
- Huang, H. C. (2018). Applying artificial intelligence techniques to improve learning

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- engagement in language courses. *Journal of Educational Computing Research*, 56(4), 567–583.
- Kumar, A., Rajendran, S., & Yunus, M. M. (2022). Assessing the impact of AI tools in enhancing ESL learners' reading skills. *Journal of Language Studies*, 25(3), 123–139.
- Li, M., & Zhu, Y. (2021). Personalized learning with AI in language education: Benefits and challenges. *Educational Technology Research and Development*, 69(5), 1203–1220.
- Pappas, A., Giannakos, M., & Jaccheri, L. (2019). Engaging learners with AI-enhanced educational platforms: A review of AI applications in K-12 education. *Computers & Education*, 142, 103637. <https://doi.org/10.1016/j.compedu.2019.103637>
- Renandya, W. A., & Jacobs, G. M. (2016). Extensive reading and its role in second language acquisition. *The Reading Matrix*, 16(2), 123–140.
- Rajendran, S., & Yunus, M. M. (2021). The gamification effect: Enhancing ESL learners' reading motivation and engagement with AI-powered tools. *TESOL Journal*, 12(4), e584.
- Warschauer, M., & Liaw, M. L. (2019). Emerging technologies for autonomous language learning. *Computer Assisted Language Learning*, 32(3), 151–165.
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education. *International Journal of Educational Technology in Higher Education*, 16(39).