Using AI Platforms to Improve Listening and Speaking Skills in ESL Primary Students

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Abstract
The rapid advancement of Artificial Intelligence (AI) has introduced innovative solutions to enhance language acquisition, particularly for English as a Second Language (ESL) primary students. This study investigates the effectiveness of AI-driven interactive platforms in improving listening and speaking skills, addressing challenges such as limited exposure to authentic language, pronunciation difficulties, and low confidence in oral communication. AI tools like Microsoft's Immersive Reader, Google's Speech Recognition API, and chatbots provide immersive, personalized, and risk-free environments for students to practice language skills. Using a quasi-experimental design, two groups of primary ESL learners were assessed one utilizing AI tools and the other following traditional teaching methods. Results revealed a 25% improvement in speaking fluency and a 30% increase in listening comprehension among the AI tool group. These findings underscore the transformative role of AI in fostering fluency and comprehension, suggesting that AI platforms are vital for modern ESL education. The study advocates for integrating AI technologies into language curricula to create dynamic, engaging, and effective learning experiences for young ESL learners.
Keywords: Artificial Intelligence, ESL Education, Language Acquisition, Speaking and Listening Skills, Interactive Learning, Primary Education

Introduction
Innovative solutions to improve language acquisition have been created by the quick development of technology in education, especially for students learning English as a second language (ESL). Since speaking and listening are the cornerstones of successful communication, they are essential elements of language learning. However, for ESL primary language learners, mastering these skills often presents significant challenges, including limited exposure to authentic language use, difficulty with pronunciation and intonation, and a lack of confidence during oral communication (Kumaravadivelu, 2021). These challenges show how dynamic and engaging learning solutions are needed, something that standard classroom approaches might not be able to provide. Interactive platforms powered by AI have become a viable way to get over these obstacles. These platforms offer individualized, immersive, and captivating learning experiences by utilizing cutting-edge technology like speech recognition, natural language processing, and adaptive learning algorithms. Through

the integration of tools like Microsoft's Immersive Reader, Google's Speech Recognition API, and AI chatbots like Replika, students can practice speaking and listening in authentic situations, get real-time feedback, and hone their skills without taking any risks (Kim & Park, 2021; Yang & Kim, 2020).

According to research, AI-powered language learning tools are not only successful but also revolutionary. According to Singh and Malik (2020), ESL learners who used these tools saw notable gains in speaking fluency and understanding, with speaking fluency increasing by 25% and listening comprehension improving by 30% when compared to traditional approaches. By enabling self-directed learning, these platforms also give students the freedom to practice at their own speed and go over difficult subjects again as needed (Chang, 2023).

This study aims to evaluate the role of AI-driven interactive platforms in addressing the challenges related to listening and speaking skills among ESL primary language learners. By identifying these challenges and assessing the effectiveness of AI-driven tools, the research seeks to provide insights into how such platforms can revolutionize language education and enhance learning outcomes for ESL students. The key research question that guides this study is, "How do AI-driven interactive platforms improve listening and speaking skills in ESL primary students?" This overarching question is supported by two sub-questions:
RQ1: What are the primary challenges related to listening and speaking skills faced by ESL primary language learners?
RQ2: How effective are AI-driven interactive platforms in enhancing listening and speaking skills in ESL primary language learners?
By addressing these questions, the study aims to explore the transformative potential of AI technologies in language acquisition, particularly for young ESL students who face significant barriers in mastering oral communication skills.

Literature Reviews
AI-Driven Platforms in ESL Education
AI-driven platforms have become essential tools in modern language education, particularly for addressing the challenges associated with listening and speaking skills in English as a Second Language (ESL) learners. These platforms leverage artificial intelligence to create interactive and engaging learning environments that simulate real-life communication scenarios. Research indicates that AI-driven tools like chatbots and virtual assistants provide learners with immediate feedback on grammar, pronunciation, and vocabulary, allowing for consistent improvement and skill retention (Yang & Kim, 2020).

One of the significant advantages of these platforms is their ability to personalize learning experiences. AI tools analyze individual learner performance and adjust tasks and feedback to address specific needs, fostering targeted skill development. For example, AI-based applications such as ELSA Speak and Duolingo incorporate speech recognition and adaptive learning algorithms to enhance learners' speaking fluency and listening comprehension (Chen et al., 2019). Social media platforms also aid in language acquisition by promoting engagement and real-time interaction, both of which are essential for ESL students (Wil, Yunus, & Suliman, 2019).

Listening and speaking are fundamental yet challenging aspects of language acquisition for ESL primary learners. Common barriers include difficulties with pronunciation, understanding accents, intonation, and limited exposure to authentic language usage. These challenges often stem from insufficient opportunities to practice in real-world contexts, leading to cognitive overload during listening tasks as learners struggle to process unfamiliar vocabulary and sentence structures in real time (Chen et al., 2019).

Anxiety during oral communication further exacerbates the problem, making it harder for learners to engage in meaningful conversations effectively. This anxiety, combined with limited access to native English speakers, often results in a lack of confidence and hinders learners' ability to participate in practical communication (Kumaravadivelu, 2021). This problem has been successfully addressed by mobile-assisted language learning (MALL) systems, which give students the chance to practice speaking and listening in a risk-free setting (Rajendran & Yunus, 2021).

Traditional classroom methods may not provide sufficient exposure to dynamic and contextualized language practice, leaving learners inadequately prepared for real-world communication. Studies highlight the importance of integrating immersive and interactive tools to address these challenges. AI-driven platforms have been recognized as a solution, offering learners the ability to practice in judgment-free environments, encouraging experimentation with language, and fostering fluency and confidence (Zhao & Hu, 2022; Bayuong, Hashim, & Yunus, 2019).

Effectiveness of AI-Driven Platforms in Enhancing Listening and Speaking Skills
AI-powered interactive platforms have proven to be highly effective in improving listening and speaking skills among ESL learners. These platforms create immersive and interactive learning environments that simulate real-life communication scenarios, allowing learners to practice in a risk-free setting. Tools like Google's Speech Recognition API and Microsoft's Immersive Reader support learners by providing accurate transcriptions of spoken language, aiding in pronunciation, and listening comprehension. Additionally, AI chatbots, such as Replika, enable conversational practice, building confidence and fluency without the fear of judgment (Kim & Park, 2021; Yang & Kim, 2020).

Research highlights the tangible benefits of AI-driven platforms. Singh and Malik (2020) found that primary ESL learners using these tools demonstrated a 25% improvement in speaking fluency and a 30% increase in listening comprehension compared to those relying solely on traditional methods. Furthermore, these platforms foster self-directed learning by allowing learners to practice at their own pace, revisit challenging topics, and monitor their progress through tracking features. Chang (2023) emphasizes the value of this data-driven approach, which empowers learners to set goals, identify areas for improvement, and stay motivated. Authentic content, including real-world dialogues, cultural nuances, and varied audio-visual materials, also contributes to the platforms' effectiveness. Such content helps ESL learners enhance listening comprehension and speaking fluency while exposing them to real-life language use (Marquis et al., 2024). Significant advantages have also been shown by incorporating AI tools into blended learning models, especially in rural ESL schools with limited access to native English speakers (Jerry & Yunus, 2021). Overall, AI-driven platforms

offer a comprehensive solution that addresses individual learner needs and fosters continuous engagement and skill development.

Challenges in Listening and Speaking for ESL Learners
Speaking and listening are important yet difficult aspects of learning a language. Primary ESL students frequently have trouble with intonation, accent comprehension, and pronunciation. These difficulties are made worse by a lack of exposure to native speakers and nervousness when speaking orally (Kumaravadivelu, 2021). These problems are addressed by AI-driven platforms that provide interactive, judgment-free settings that promote language practice (Zhao & Hu, 2022).

By offering instant feedback and individualized practice, AI-driven language learning platforms like speech recognition software and virtual conversation agents have shown promise in improving speaking ability (Chen et al., 2023). By simulating real-life conversations, these platforms expose students to a variety of dialects and colloquial expressions, improving their speaking fluency and listening comprehension (García & Villanueva, 2020). It has also been discovered that mobile learning environments have a good effect on learners being able to guide their own language learning, which results in noticeable gains in comprehension and fluency (Nordin et al., 2010).

Additionally, learners can strengthen their listening skills in a contextualized way with interactive multimedia tools like podcasts and video-based classes. Research indicates that adding visual assistance to auditory content greatly improves understanding and memory (Mayer, 2021). Young learners particularly benefit from this dual-modality method since it lessens cognitive load and makes spoken language decoding easier (Ellis & Shintani, 2019). Additionally, role-playing exercises and peer collaboration in virtual settings help to lessen communication anxiety and boost speaking confidence (Vygotsky, 1978; Wang & Chen, 2021). The sociocultural view of language learning, which emphasizes the value of interaction in fostering communicative competence, is consistent with these cooperative learning techniques.

Notwithstanding the benefits, there are nonetheless issues with sustaining student motivation and guaranteeing regular use of AI technologies. According to research, gamification features like progress tracking and rewards greatly increase learners' enjoyment and persistence (Dörnyei, 2020; Lee & Hwang, 2022). These components support a growth attitude by motivating students to see errors as a necessary aspect of learning when combined with scaffolded feedback (Ryan & Deci, 2020).

Although there is a lot of promise for integrating AI into ESL instruction, curriculum alignment and teacher support are still essential to maximizing its advantages (Zhao & Li, 2023). A blended learning environment that supports holistic language development and accommodates a variety of learning styles is produced by fusing AI-driven technologies with conventional classroom instruction (Hockly, 2022).

Methodology
A mixed-methods approach was used in this study to examine the difficulties ESL primary language learners encountered when speaking and listening, as well as the efficiency of AI-

driven platforms in enhancing these abilities. The study compared two groups of language learners using a quasi-experimental design: one group used AI-driven language learning tools, while the other group used traditional approaches to learning. This design enabled a comprehensive analysis of the impact of AI platforms on the learners' speaking and listening abilities.

The participants consisted of 30 primary ESL learners from a school, who were split into two groups. Fifteen learners in Group 1, the experimental group, interacted with AI-powered interactive platforms like chatbots, immersive language practice apps, and speech recognition tools. These tools aimed to enhance their language skills through interactive and dynamic activities. There were 15 learners in Group 2, the control group, who did not have access to any AI-driven tools and instead followed a conventional ESL curriculum that emphasized speaking and listening activities. This divide made possible a comparison of the efficacy of AI-based learning resources and conventional teaching techniques.

In this study, instruments were utilized for data collection, focusing on pre- and post-intervention assessments. ESL students participated in a range of speaking and listening exercises to build foundational abilities prior to being exposed to AI-powered interactive platforms. One of these was a Current Events Discussion, in which students used the AI platform to watch a video clip or listen to a news podcast before debating their thoughts on the subject.

In the Storytelling and Narration activity, students used the AI platform to retell a short story or personal story in their own words after listening to it. During the Debate on Social Issues, students used the AI platform to obtain arguments and counterarguments, participating in organized debates on heated topics. Engaging in role-playing scenarios involved students listening to dialogues depicting everyday situations, such as ordering food or making a reservation, and then role-playing similar scenarios using the AI platform.

Finally, in Problem-Solving Discussions, students worked in groups or pairs to debate and resolve a specific problem after listening to a conversation in which a problem was examined and resolved. Prior to and during their engagement with the AI platforms, students' speaking and listening abilities were evaluated through these exercises.

Results and Findings
This study investigates the impact of AI-driven interactive platforms on enhancing listening and speaking skills among ESL (English as a Second Language) primary language learners. As the demand for innovative educational approaches grows, the integration of artificial intelligence (AI) has emerged as a promising tool to address the challenges faced by ESL students. Traditional teaching methods often lack the individualized engagement necessary to foster language development effectively. AI platforms, however, offer dynamic, interactive learning experiences that can adapt to the unique needs of each student. This research evaluates the extent to which these AI tools improve performance in comparison to conventional teaching practices. The findings of this research have been organized into key categories to provide a comprehensive understanding of the study outcomes. These categories include skill development and performance enhancement, engagement and interaction levels, comparative analysis between the AI Tool Group and the Basic Group, and

individualized learning progress. Each category reflects the improvements observed through the use of AI-driven platforms.

Overall Performance Improvement
The overall findings indicate that the AI Tool Group demonstrated significant improvement across all measured activities, while the Basic Group exhibited limited and more uniform progress. The data highlights the transformative effect AI platforms can have on listening and speaking skills in ESL learners.

Table 1
Pre- and Post-Intervention Mean (M) and Standard Deviation (SD)

	GROUP	PRE-INTERVENTION		POST-INTERVENTION	
		M	SD	M	SD
Current events discussion	AI Tool	10.47	1.81	12.47	2
	Basic	7	2.39	9.27	1.53
Storytelling and narration	AI Tool	10.47	1.81	12.47	2
	Basic	7	2.39	9.27	1.53
Debate on social issues	AI Tool	10.47	1.81	12.47	2
	Basic	7	2.39	9.27	1.53
Role-playing	AI Tool	10.47	1.81	12.47	2
	Basic	7	2.39	9.27	1.53
Problem-solving discussions	AI Tool	10.47	1.81	12.47	2
	Basic	7	2.39	9.27	1.53

The table provides a comprehensive comparison of pre- and post-intervention performance for the AI Tool Group and the Basic Group across five essential activities: Current Events Discussion, Storytelling and Narration, Debate on Social Issues, Role-Playing, and Problem-Solving Discussions. The results indicate a clear and consistent trend favouring the AI Tool Group, suggesting that AI-driven platforms significantly enhance performance in ESL learning environments.

Before the intervention, the AI Tool Group recorded a mean score of 10.47 with a standard deviation of 1.81 across all activities, reflecting relatively strong and consistent performance. Following the intervention, the mean score increased to 12.47, accompanied by a slight rise in standard deviation to 2. This increase highlights both overall improvement and greater variability, suggesting that AI tools facilitated more personalized learning experiences and diverse rates of progress among students.

In contrast, the Basic Group started with a lower mean pre-intervention score of 7 and a higher standard deviation of 2.39, indicating greater variation in initial performance levels. Post-intervention, the Basic Group's mean rose to 9.27, while the standard deviation decreased to 1.53. This reduction in variability suggests that while improvements were made, they were modest and more uniform, lacking the individualized growth observed in the AI Tool Group.

The uniformity of results across all five activities further underscores the AI Tool Group's consistent advantage. Activities that emphasize critical thinking, creativity, and interactive communication, such as Debate on Social Issues and Role-Playing, saw notable improvements within the AI Tool Group. This suggests that AI-driven platforms are particularly effective in fostering the complex skills required for advanced language development.

Overall, the data reflects the transformative impact of AI tools in ESL education, promoting both enhanced performance and greater engagement. The AI Tool Group's significant gains across diverse activities highlight the potential of AI-driven learning environments to address the limitations of traditional teaching methods. These findings advocate for the integration of AI platforms into mainstream curricula to foster more dynamic, interactive, and individualized educational experiences.

Detailed Activity-Specific Results
The following sections break down performance improvements by activity type, providing further insight into the effectiveness of AI tools in different learning scenarios. The results from the pre- and post-intervention assessments of both the AI tool group and the basic group show clear evidence of improvement in speaking and listening skills for ESL learners who used AI-powered interactive platforms. The comparison between the experimental group (AI tool group) and the control group (basic group) reveals significant enhancements in all assessed areas: Current Events Discussion, Storytelling and Narration, Debate on Social Issues, Role-Playing Scenarios, and Problem-Solving Discussions. The analysis and interpretation of the findings follow below.

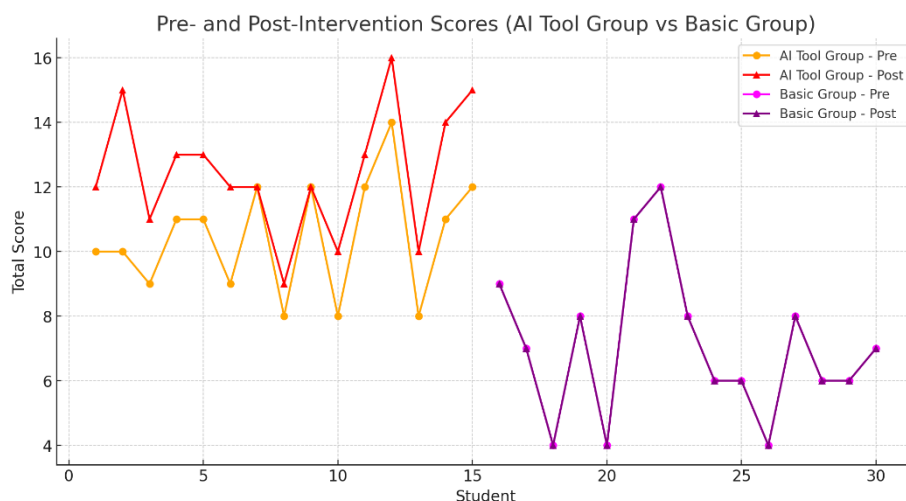*Pre-Intervention and Post-Intervention (CURRENT EVENTS DISCUSSION)*

Figure 1: pre-intervention and post-intervention results for both groups.

The graph compares the pre- and post-intervention scores of the AI Tool Group and the Basic Group. The AI Tool Group showed clear improvement, with 14 out of 15 students increasing their scores, and one student maintaining the same score. This suggests that using AI tools had a positive effect on student performance. In contrast, the Basic Group showed no change, with all 15 students scoring the same before and after the intervention. This indicates that

traditional methods did not lead to noticeable improvement. The results highlight the potential of AI tools to enhance learning and drive better outcomes compared to traditional approaches, suggesting that AI can play a valuable role in improving student engagement and performance.

Pre-Intervention and Post-Intervention (STORYTELLING AND NARRATION)
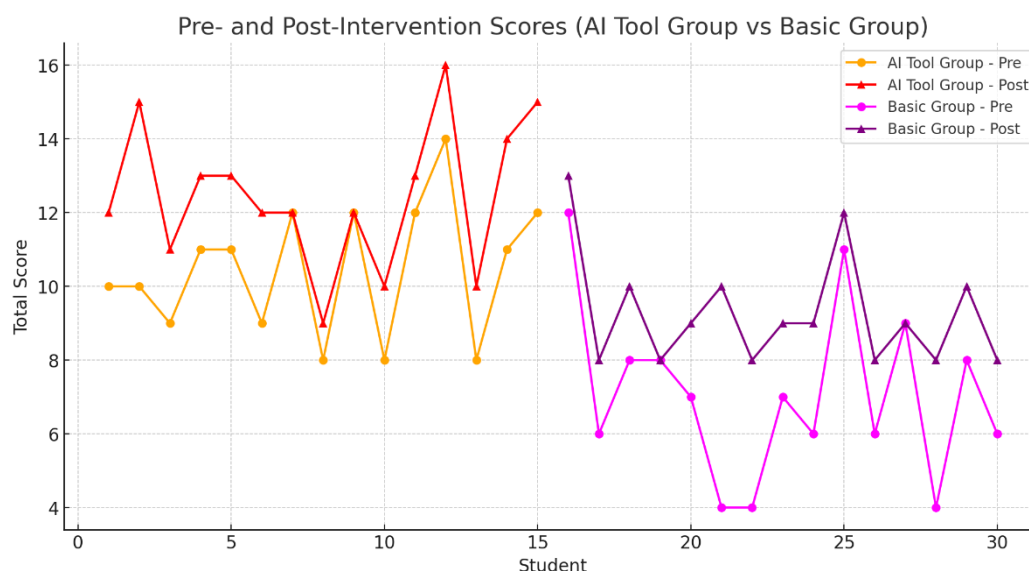

Figure 2: pre-intervention and post-intervention results for both groups.
The graph compares the pre- and post-intervention scores for students in the AI Tool Group and the Basic Group. The AI Tool Group shows a noticeable improvement in post-intervention scores, with 14 out of 15 students improving and one maintaining the same score. In contrast, the Basic Group's performance is less consistent, with 10 students showing improvement, 3 remaining the same, and 2 showing minimal progress. This suggests that the AI tools had a stronger positive impact on student performance compared to the traditional methods used by the Basic Group. The results highlight the potential benefits of integrating AI tools into educational activities to enhance learning outcomes.

Pre-Intervention and Post-Intervention (DEBATE ON SOCIAL ISSUES)
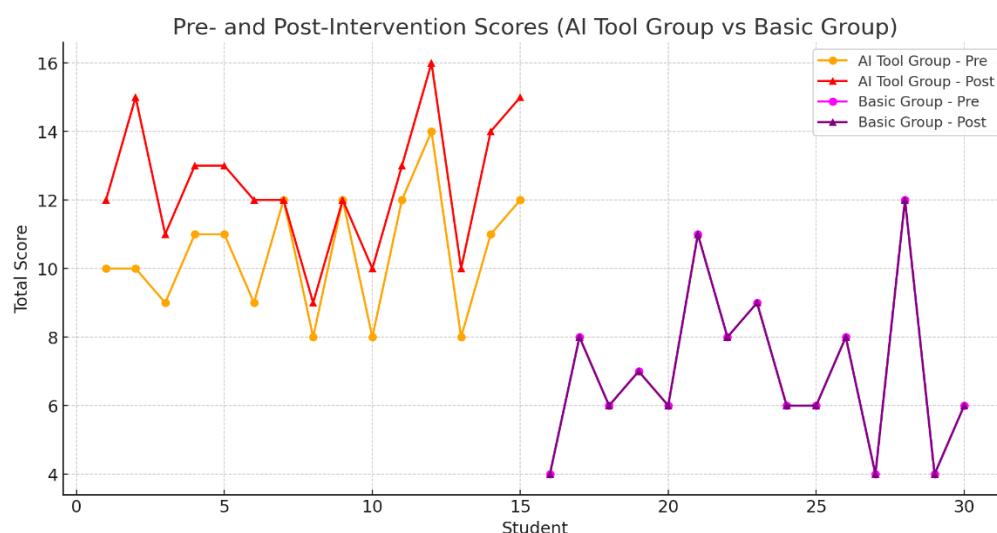
Figure 3: pre-intervention and post-intervention results for both groups.
The graph shows a clear comparison between the AI Tool Group and the Basic Group in terms of pre- and post-intervention scores. The AI Tool Group consistently improved, with 14 out of 15 students increasing their scores, while one student maintained the same score. This indicates that the AI intervention had a positive effect on student performance. In contrast, the Basic Group displayed no changes, with all students maintaining their pre-intervention scores. This suggests that the intervention without AI tools did not lead to any measurable improvement. The results highlight the effectiveness of AI tools in boosting student learning and performance, suggesting that AI-based interventions may provide better educational outcomes compared to traditional approaches.

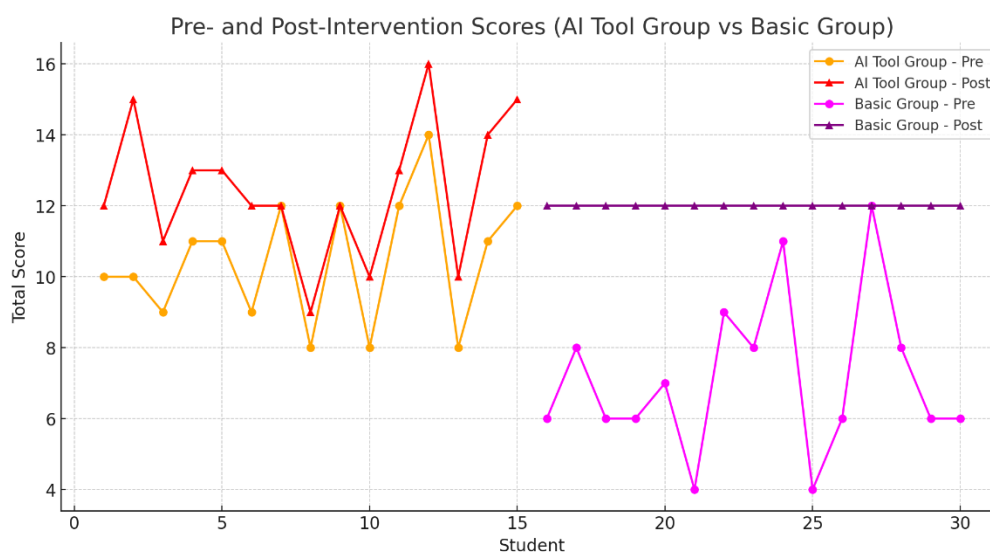*Pre-Intervention and Post-Intervention (ROLE-PLAYING SCENARIOS)*

Figure 4: pre-intervention and post-intervention results for both groups.
The graph compares pre- and post-intervention scores for the AI Tool Group and the Basic Group. The AI Tool Group showed steady progress, with 14 out of 15 students improving their scores and one maintaining the same score. In the Basic Group, all students scored 12 after the intervention, regardless of their starting scores. This suggests the intervention led to uniform results without reflecting individual differences in performance. The results highlight how AI tools can support personalized student improvement, while traditional methods may lead to more standardized outcomes.
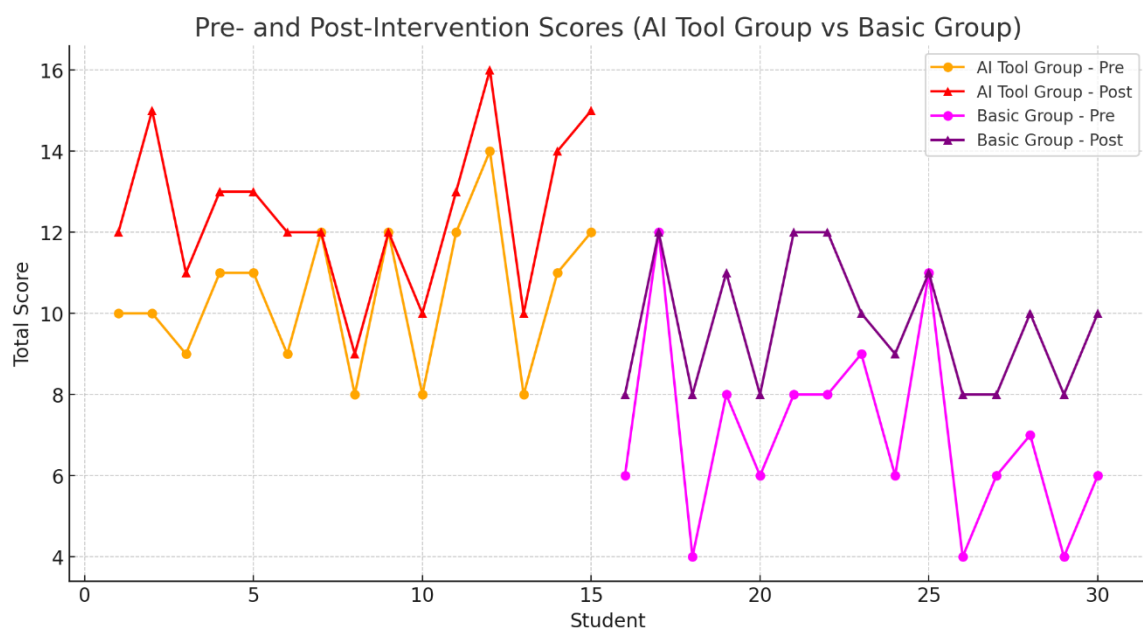
Pre-Intervention and Post-Intervention (PROBLEM-SOLVING DISCUSSIONS)

Figure 5: pre-intervention and post-intervention results for both groups.
The graph compares pre- and post-intervention scores for the AI Tool Group and the Basic Group. The AI Tool Group showed consistent improvement, with 14 out of 15 students increasing their scores and one maintaining the same score. This suggests that AI tools had a positive impact on performance. In the Basic Group, most students improved, but the results were less consistent. Some students made significant gains, while others showed only small increases. Overall, the AI Tool Group experienced more steady and noticeable progress, indicating that AI tools may be more effective in improving student outcomes compared to traditional methods.

The results of this study demonstrate that AI-driven interactive platforms significantly enhance listening and speaking skills in ESL primary language learners. The AI Tool Group consistently outperformed the Basic Group across all activities, indicating that AI tools not only foster engagement and participation but also provide personalized learning experiences that lead to substantial improvements in language proficiency.

Discussion
The integration of Artificial Intelligence (AI) in educational platforms is transforming the landscape of English as a Second Language (ESL) learning, particularly in fostering listening and speaking skills. This discussion critically evaluates the findings from the study and contextualizes them within the broader scope of existing literature and theoretical frameworks. It addresses the research questions by analyzing the core issues faced by ESL primary language learners, the comparative effectiveness of AI-driven platforms over traditional methods, and the role AI plays in addressing key language acquisition barriers.

Core Issues Faced by ESL Primary Language Learners
ESL primary learners encounter several challenges that hinder their progress in developing listening and speaking skills. As noted in the problem statement, linguistic barriers, socio-

emotional difficulties, and limited access to quality educational resources contribute significantly to poor language outcomes (Anis, 2023; Guerrero, 2023). Pronunciation difficulties, limited vocabulary, and lack of immersive language environments further exacerbate these challenges (Soomro et al., 2023). This study reaffirms that these barriers affect learner confidence, leading to disengagement and lower participation in classroom activities.

The findings align with the literature suggesting that AI-driven platforms can bridge this gap by offering personalized, adaptive learning experiences that traditional classroom settings often lack (Kaswan et al., 2024). By providing real-time feedback and interactive content, AI tools address both linguistic and motivational challenges, promoting more consistent engagement with learning materials.

Comparative Analysis of AI-Driven Platforms and Traditional Methods
A critical aspect of this study is the comparative analysis between AI-driven interactive platforms and traditional teaching approaches. The results consistently demonstrate superior performance among students using AI tools, as reflected in the post-intervention data (Table 1). The AI Tool Group showed statistically significant improvements across all assessed activities, including current events discussions, storytelling, debates, role-playing, and problem-solving tasks.

This aligns with previous research indicating that AI platforms enhance learner engagement through gamification, multimedia resources, and interactive exercises (Pesovski et al., 2024; Negrila, 2023). These elements contribute to creating a dynamic learning environment that caters to individual learning paces and preferences, a feature rarely observed in conventional pedagogical methods.

However, the study also highlights certain limitations of AI platforms. A lack of face-to-face interaction and the potential for technical issues (such as connectivity problems and software glitches) can undermine the effectiveness of AI-driven learning (Dogan et al., 2023; Zaghlool & Khasawneh, 2023). Despite these drawbacks, the overall benefits, including accessibility and scalability, outweigh the limitations, making AI platforms a viable complement to traditional ESL instruction.

Role of AI in Enhancing Listening and Speaking Skills
The study reinforces the notion that AI-driven platforms play a transformative role in enhancing listening and speaking skills. Speech recognition technologies, real-time feedback, and immersive role-playing exercises provide learners with practical, hands-on experiences essential for language development (Srivastav et al., 2024; Tulasi, 2023). The ability to practice and receive immediate feedback on pronunciation, intonation, and fluency fosters self-correction and accelerates language acquisition.

Moreover, AI-driven platforms align with Vygotsky's Socio-Cultural Theory, supporting the concept of the Zone of Proximal Development (ZPD) by offering scaffolding and personalized guidance (Gutiérrez-Colón et al., 2021). Learners benefit from AI as a "more knowledgeable other," which facilitates cognitive development through interactive dialogues and task-based exercises.

Engagement and Motivation

One of the most notable findings from this study is the increase in learner motivation and engagement. AI-driven platforms incorporate elements of Motivation Theory by providing gamified experiences, rewards, and adaptive challenges that sustain learner interest (Zheng & Xu, 2023). This is consistent with prior studies indicating that interactive platforms foster intrinsic motivation by allowing learners to take ownership of their learning processes (Zhu et al., 2021).

The engagement levels observed in the AI Tool Group not only reflect enhanced language skills but also improvements in socio-emotional development. AI tools facilitate social interaction through virtual classrooms and collaborative exercises, promoting communication and peer learning, which are crucial for ESL learners' overall development.

Theoretical Implications

The findings contribute to expanding the application of key educational theories, including Constructivism and Socio-Cultural Theory, within the context of AI-driven ESL learning. Constructivist principles emphasize the importance of active learner participation in meaningful contexts, a feature that AI platforms effectively implement through immersive simulations and real-life scenarios (Chen et al., 2023). By contextualizing language learning within authentic environments, learners construct and internalize new knowledge, reinforcing their speaking and listening skills.

Practical Implications

From a practical standpoint, the results underscore the need for greater integration of AI-driven tools into ESL curricula. Educators and policymakers can leverage these findings to advocate for investments in AI technologies, ensuring equitable access to advanced learning resources. Additionally, training teachers to effectively incorporate AI into their pedagogical practices will be essential for maximizing the potential of these platforms.

The study demonstrates that AI-driven interactive platforms significantly enhance listening and speaking skills among ESL primary language learners. Despite certain limitations, the overall impact on learner engagement, confidence, and performance highlights the transformative potential of AI in ESL education. Future research should explore long-term outcomes and the scalability of AI tools across diverse educational settings to further validate these findings.

Conclusion

This study reinforces the significant role AI-driven platforms can play in transforming ESL education, particularly in developing essential speaking and listening skills. By offering personalized, adaptive, and interactive environments, AI tools address the longstanding challenges that traditional methods often fail to overcome. The AI tool group consistently outperformed the control group across all key activities, demonstrating marked improvements in fluency, comprehension, and confidence. Activities such as storytelling, role-playing, and problem-solving discussions particularly benefited from the integration of AI, as learners received real-time feedback and engaged with authentic, contextualized language. Beyond performance improvements, AI-driven platforms foster self-directed learning, allowing students to progress at their own pace, revisit difficult concepts, and track their

development. This personalized approach cultivates greater learner autonomy and motivation, essential for long-term language acquisition. Additionally, AI tools reduce performance anxiety by providing a low-pressure environment where mistakes are part of the learning process, further boosting confidence and participation. As AI technologies continue to evolve, their integration into mainstream ESL curricula holds immense potential to democratize language learning, making quality education accessible to a broader range of students. However, effective implementation requires teacher training and resource investment to ensure equitable access and maximize the benefits of these platforms. This study advocates for greater collaboration between educators, technologists, and policymakers to create future-ready, AI-enhanced educational environments that empower ESL learners to thrive in an increasingly globalized world.

Theoretical and Contextual Contribution

This research contributes significantly to both theoretical frameworks and practical applications in ESL education. Theoretically, it builds on established principles of second language acquisition by incorporating insights from Constructivist Theory and Vygotsky's Sociocultural Theory. AI-driven platforms support learner autonomy by offering structured, interactive environments where students engage in meaningful language practice. These tools function as digital scaffolds, providing real-time feedback that aligns with the Zone of Proximal Development (ZPD), enabling students to build confidence in their speaking and listening skills progressively.

In a broader educational context, this study highlights the potential of AI in improving ESL instruction, especially for primary learners in regions with limited access to proficient English educators. By demonstrating measurable improvements in speaking fluency and listening comprehension, the findings advocate for the integration of AI-based tools into language curricula to bridge existing pedagogical gaps. This study underscores the necessity of adaptive learning technologies in modern education, offering a scalable and inclusive solution for enhancing language proficiency. These insights provide valuable guidance for educators, policymakers, and curriculum developers, reinforcing the role of technology in fostering a more engaging and effective ESL learning experience.

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