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Improving English Speaking Skills using the SmallTalk2Me Artificial Intelligence-Based Tool: An Innovative Approach in Secondary Education

Camila Alexandra Jiménez Iñiguez | iD Universidad Nacional de Loja - Ecuador
Marcia Iliana Criollo Vargas | iD Universidad Nacional de Loja - Ecuador

ABSTRACT Artificial Intelligence is covering all areas of science and English Language learning is not the exception. Therefore, this study examines how the AI-based tool SmallTalk2Me enhances English-speaking skills among A2-level secondary students in a private high school. Using an exploratory design, pre- and post-intervention assessments revealed significant improvements in pronunciation and fluency, highlighting the tool's potential for fostering interactive learning environments. Furthermore, students displayed increased confidence and engagement in speaking activities, which fostered a more dynamic learning environment. Therefore, these results highlight the importance of SmallTalk2Me artificial intelligence-based tools in helping to improve speaking skills in a more interactive way.

KEYWORDS SmallTalk2Me; AI-based learning tools; English Speaking Skills; Pronunciation and Fluency; English Language Learning.

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Mejora de las habilidades de expresión oral en inglés mediante la herramienta basada en inteligencia artificial SmallTalk2Me: Un enfoque innovador en la educación secundaria.

RESUMEN La inteligencia artificial está abarcando todas las áreas de la ciencia, y el aprendizaje del idioma inglés no es la excepción. Por ello, este estudio examina cómo la herramienta basada en inteligencia artificial SmallTalk2Me mejora las habilidades de expresión oral en inglés entre estudiantes de nivel A2 en una institución secundaria privada. A través de un diseño exploratorio, las evaluaciones realizadas antes y después de la intervención revelaron mejoras significativas en la pronunciación y la fluidez, destacando el potencial de la herramienta para fomentar entornos de aprendizaje interactivos. Además, los estudiantes mostraron un aumento en la confianza y la participación en las actividades orales, lo que contribuyó a un entorno de aprendizaje más dinámico. Por lo tanto, estos resultados resaltan la importancia de las herramientas de inteligencia artificial como SmallTalk2Me para mejorar las habilidades de expresión oral de manera más interactiva

PALABRAS CLAVE SmallTalk2Me; Herramientas de aprendizaje basadas en IA; Destrezas orales en inglés; Pronunciación y fluidez; Aprendizaje del idioma inglés.

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kronos.idiomas@uce.edu.ec

INTRODUCTION

In today's interconnected world, the ability to communicate effectively in English is essential for academic success. The ideal situation for students in Ecuador is to achieve a high level of proficiency in English speaking skills, enabling them to engage confidently in classroom discussions, collaborate with peers on projects, and access a wide range of educational resources. In fact, Brown and Green (2022) state that this proficiency not only boosts students' learning experience but also prepares them for advanced studies and academic pursuits in a globalized educational environment.

Nevertheless, many Ecuadorian students struggle to develop these important speaking skills. Although the importance of English is widely recognized, students are often reluctant to speak in class, resulting in a lack of confidence and skills. In this regard, Creswell (2014) suggests the gap between ideal situations and current reality highlights the need for effective interventions to help students overcome language difficulties.

Research has demonstrated the potential of AI-based tools in language learning. For instance, De la Vall and Araya (2023) underscore that AI tools provide personalized learning experiences that address individual student needs. Similarly, Katsarou et al. (2023) state that AI-driven platforms boost engagement by offering real-time feedback and adaptive learning pathways. However, despite these benefits, these studies fail to account for challenges such as the digital divide, which limits access for students in under-resourced schools. Additionally, AI-based tools rely on pre-programmed algorithms that may not fully accommodate individual learning styles or cultural variations in language use (Rahimi & Zhang, 2020). Consequently, these limitations suggest the need for a more nuanced approach that integrates AI tools without over-relying on technology as a sole instructional method.

This research has relevance beyond the classroom because it addresses a critical issue that affects not only students, but also educators and policymakers. The results of this study will help improve the overall quality of education in Ecuador by improving English language skills, which will ultimately benefit students' academic and career futures (Creswell, 2014).

The purpose of this study is to evaluate the effectiveness of the SmallTalk2Me AI tool in improving the speaking skills of low-income students. Indeed, the research questions focus on how incorporating this tool affects students' confidence and proficiency in speaking English skills. Without intervention this situation shows little potential for improvement, highlighting the importance of this research in identifying effective strategies to support language development (De la Wall & Araya, 2023).

This research adopted a quantitative approach, utilizing descriptive statistical methods to provide a comprehensive understanding of the impact of SmallTalk2Me. The study is exploratory in nature, focusing on a specific group of 15 lower education students in a private school in Loja, Ecuador. It is necessary to point out that limitations may include the small sample size and the specific context of the study, which may affect the generalizability of the findings (Creswell, 2014).

LITERATURE REVIEW

This framework examines the efficacy of SmallTalk2Me, an AI-based tool, in enhancing English-speaking skills. It explores AI tools in language education, key components of speaking proficiency, and relevant studies. The first section focuses on SmallTalk2Me's application in language learning, its capabilities, and its pedagogical implications. The review also critically assesses the advantages of AI tools, including adaptive learning and real-time feedback,

while acknowledging challenges such as potential over-reliance on technology and accessibility gaps in different educational backgrounds.

The second section contains some aspects of speaking using the English language that go beyond the learning of the language structure and vocabulary. These include grammar, vocabulary, pronunciation, discourse management, fluency and interactive communication, essential factors in effective speech delivery. There is therefore a need to know these factors to convincingly assess and explain how some AI devices, such as SmallTalk2Me may assist in skills acquisition and enhance students' performance levels. Overall, by integrating these components, this theoretical framework provides a comprehensive foundation for assessing the impact of SmallTalk2Me on improving English speaking skills among students.

USE OF AI-BASED TOOLS (SMALLTALK2ME)

AI-driven tools like SmallTalk2Me have transformed language instruction by providing personalized feedback and enhancing engagement (Vera, 2023). Nevertheless, despite these advantages, AI tools are not without limitations. Indeed, Katsarou et al. (2023) state that their effectiveness is contingent upon technological access and student digital literacy. Furthermore, while AI provides immediate feedback, it lacks the human intuition necessary for nuanced language instruction, such as recognizing contextual appropriateness and cultural variations in speech (Rahimi & Zhang, 2020). This calls for a balanced approach, where AI tools supplement rather than replace traditional teaching methods.

AI IN EDUCATION

AI technologies like machine learning and natural language processing have been used to enhance the learning process. They are personalized learning aids, task administration automation tools that have real-time feedback for learners. Katsarou et al. (2023) noted that AI technologies can improve student learning through personalized instructions.

Moreover, Zou et al. (2023) say recent advancements in AI have led to the creation of more sophisticated and effective educational tools. In the past, AI was only applied to rule-based systems and simple data manipulations that offered partial support alone. This is, however, now possible with machine learning and natural language processing which allows for conversational approaches involving students.

AI-BASED TOOLS FOR SPEAKING SKILLS

It is worth noting that AI-based tools aimed at improving oral communication skills focus on enhancing students' ability to communicate effectively in spoken English. These tools apply the latest technologies such as speech recognition and natural language processing for providing feedback (Ahmed et al., 2020). Thus, they aim to build students' confidence and competence in speaking by simulating conversational scenarios and offering targeted practice.

AI tools for speaking skills utilize speech recognition and natural language processing (NLP) to provide real-time feedback on pronunciation and fluency (Smith & Jones, 2022). However, these systems often struggle with accent bias, as their algorithms are trained on standardized pronunciations, potentially disadvantaging non-native speakers

with regional variations (Brown & Green, 2022). In addition, Suzuki (2021) mentions that while AI can analyze speech patterns, it does not foster spontaneous conversation or pragmatic competence, which are essential for real-world communication. Hence, AI should be integrated alongside interactive, human-led discussions to ensure comprehensive language development.

SPECIFIC AI TOOL: SMALLTALK2ME

"SmallTalk2Me" is an innovative AI tool which is specifically designed to help learners improve their spoken English skills. According to Manggiasih et al. (2023) this tool applies advanced AI technologies that render learning experiences interactive and adaptive, concentrating on speech improvement. "SmallTalk2Me," with its attributes like speech recognition and natural language processing, thus, holistically approaches language practice.

For Kim and Zhang (2021) the tool can be used by teachers for personalizing practice exercises, tracking student development, and providing focused responses. Therefore, this method of instruction aims at making language teaching more effective, while also helping students develop their speaking skills.

By and large, the effectiveness of "SmallTalk2Me" is determined based on how much it can boost students' fluency in speaking and participation in the various stages of instruction. In addition, Patel (2021) states that by giving feedback and interactive drills in real time mode this system assists learners to realize improved self-assurance and competence in spoken English.

OVERVIEW OF SMALLTALK2ME

SmallTalk2Me functions as a real-time personal tutor by using speech recognition to provide interactive conversation simulations and personalized feedback. In this regard, Nguyen et al. (2024) argue that this approach distinguishes "SmallTalk2Me" from others because it diversifies its activities depending on learner characteristics and provides online feedback. In fact, these researchers say that this AI tool has three main components that include an interactive conversation simulation: adaptive learning paths. However, while SmallTalk2Me offers valuable pronunciation and fluency support, it should be integrated with human-led activities to ensure well-rounded language development.

This tool on its part claims to be a supplementary e-learning tool meant for use alongside traditional teaching methodologies. Lee & Chen (2023) stand out that teachers can introduce this software inside their programs to add more opportunities for spoken practice in English. This made instruction better overall thus enabling students who use this program to reach their educational goals faster.

IMPLEMENTATION IN THE CLASSROOM

Incorporating " SmallTalk2Me " in the classroom, some necessary steps must be followed to ensure it is an effective tool in supporting language learning. To do this, teachers must incorporate the tool into their already existing plans and guide students on effective application. Ulinuha and Parnawati (2024) suggests this AI tool may help traditional language teaching by including interactive practice sessions and feedback for each student.

Moreover, by analyzing the performance of this tool, teachers can monitor students' progress and support them if necessary. This method helps reinforce learning objectives while meeting individual students' needs.

To prove SmallTalk2Me's overall classroom effectiveness, we must evaluate its impact on students' speaking skills and overall engagement in the educational process. According to Olinhoa and Binawati (2024), by incorporating such a resource into language teaching, teachers improve the quality of learning in classrooms which helps students acquire the speaking skills needed for their activities outside the classroom. Based on this scenario, this scheme aims to maximize the benefits of AI technology in language teaching.

ENGLISH SPEAKING SKILLS

English speaking skills are a crucial component of language acquisition, encompassing various elements such as grammar, vocabulary, pronunciation, and interactive communication. These skills are essential for effective verbal communication and are fundamental to achieving proficiency in the English language. According to Lee and Chen (2023), developing strong speaking skills is vital for students to succeed in both academic and social contexts.

Indeed, AI-based tools can help learners practice and get feedback on their English-speaking skill development. Learners have an opportunity to practice speaking through AI-based tools using interactive environments where they can receive feedback in real-time about their progress. The integration of Artificial Intelligence technology into teaching languages facilitates mastering these indispensable speaking abilities (Miller, 2022).

FLUENCY

Fluency is another essential component of effective English communication skills. Fluency refers to the ability to communicate smoothly and effortlessly, while accuracy involves using correct grammar, vocabulary, and pronunciation. (Brown, 2020). These aspects contribute to the overall proficiency and successful communication in the English language.

According to Peltonen (2022) the ability to communicate fluently, despite occasional grammatical errors, does not hinder effective communication. This notion aligns with Suzuki's (2021) assertion that fluency develops when speakers engage in meaningful and comprehensible interactions. In fact, the usage of AI tools might encourage students to employ communication techniques and compare their own progress, serving as indicators of fluency development. The author additionally underlines that these factors develop through practice and self-observation and suggests the necessity of being offered certain basic skills such as pronunciation, grammar and vocabulary for perfect imitation in learners.

PREVIOUS STUDIES

The role of AI in the process of language teaching has brought about a new age of learning by allowing learners with speaking skill deficits and problems to use the language in an active manner. Recently, there have been several works performed about technology and the usage of AI tools for the acquisition of a second and foreign language, which emphasize their effectiveness and scope of application in transformation of traditional forms of

teaching. As regards, these are devices such as SmallTalk2Me which have been shown to enhance the English-speaking ability of students through real time speaking practice, conversational rehearsals, and learner centered scenarios (Manggiasih et al., 2023).

AI tools also allow us to maintain a conducive learning space while meeting the unique lessons that are important for the satisfactory need of every learner. Also, in the work study conducted by Muthmainnah and Alsbbagh (2024) there was emphasis on self-regulated learning with the use of AI applications and their efficacy in the EFL classrooms. They can alter language task difficulty levels using AI tools which in turn ensure that each of the learners is involved with the proportion of their potential. This ability is essential for learning to speak, since every child can learn differently. This shows how AI tools such as SmallTalk2Me are capable of helping individual learners with their linguistic competence whilst also contributing to the motivations and participation of students.

To sum up, the existing literature on AI language tools for language learning, both as more or less compiled by Zhang and Zou (2022), Muthmainnah et al. (2024), and Limones (2024), highlights how this Further Plan resonates with students' speaking improvement goals in high school. SmallTalk2Me, for instance, integrates conversational practice with feedback and grammar support, which is a rare but highly useful combination in contemporary language classrooms. With the ongoing utilization of AI-based tools in educational institutions, the effectiveness of language learning subsequently improves with ease on the students' part in speaking out the language- in this case, English. Sooner or later, such processes of integrating these technologies into the work of educational establishments might raise the level of teaching foreign languages in the modern world.

METHODOLOGY

The study was conducted at a Private High School in Loja, Ecuador, during the 2024-2025 academic year. The study uses a quantitative approach, in which descriptive statistical techniques were used to collect data. To evaluate the SmallTalk2Me AI tool aimed at improving English-speaking skills, the researcher used a pre-test and a post-test. Indeed, these tests were conducted considering parameters such as fluency, pronunciation, grammar vocabulary and interactive communication.

RESEARCH SETTING

During the academic period 2024-2025, a private high school in Loja, Ecuador was the setting for this research. This high school is well-equipped with essential resources such as computers, a stable internet connection, suitable headphones, and other technologies, all of which contributed to the project's effective execution. Overall, these tools facilitated the effective use of the SmallTalk2Me tool to improve students' English-speaking abilities.

PARTICIPANTS

The study comprised 15 tenth-grade students, an equal number of boys and females, aged 14 to 15 years. It is necessary to point out that convenience sampling was used to choose participants based on accessibility and availability. Besides, all participants had an A2 level of English proficiency, according to the Common European Framework of

Reference for Languages (CEFR). Indeed, parental approval was acquired to ensure ethical compliance while including students in this investigation.

RESEARCH APPROACH AND DESIGN

The investigation used a quantitative approach. This aims to provide a comprehensive analysis of the AI tool's impact on students' speaking skills. The research design was based on an action research model, that according to Creswell (2014) underscores an iterative improvement of English-speaking abilities via cycles of planning, acting, observing, and reflecting. In this regard, given the objectives, the study used an exploratory approach to investigate the impact of SmallTalk2Me on students' willingness and ability to speak English.

DATA COLLECTION SOURCES AND TECHNIQUES

To examine the impact of the SmallTalk2Me tool on students' English-speaking skills, data were gathered using quantitative instruments. The testing strategy included both pre-tests and post-tests to assess the impact of the SmallTalk2Me tool on students' speaking skills. These exams were taken from the AI tool as they were carefully designed, measuring skills like fluency, pronunciation, vocabulary, and grammar, providing a direct quantitative comparison before and after the intervention (Brown & Green, 2022). It is worth noting that the pre-test and post-test allowed for an objective assessment of growth in English speaking abilities, revealing important information about the tool's usefulness.

DATA ANALYSIS

Analyzing the speaking performance was done by combining the results of two sets of data: descriptive and inferential statistics obtained from the pre-tests and post-tests. It was preferable to follow sequentially the normality test (using the Shapiro-Wilk test) to decide which statistical test to use on the data. Whenever the data from the samples were found to be normal distributions, the paired samples t-tests were carried out to check whether there were significant differences in the means of the pre-test and the meaning of the speaking post-test of the students who had received the interventions before. The software Jamovi served the purpose of both processing and analyzing the data effectively. These tests were chosen based on the recommendation of Creswell (2014) since it is important to conduct normalization tests to resolve the problems of how to use suitable statistical approaches in the research. By and large, thematic analysis provided insights into the students' attitudes and perspectives which added more context to the quantitative findings.

This quantitative approach allowed for a comprehensive examination of the objective improvements in speaking skills, ensuring a thorough evaluation of the intervention's effectiveness. As Brown and Green (2022) note, quantitative data provides a well-rounded assessment of educational tools, making it possible to draw meaningful conclusions from statistical trends.

PROCEDURE

To ensure that the AI tool was sufficiently scrutinized, the evaluation of the tool and the intervention were well planned and executed regarding the nature of the problem. To start with, in the observation phase, the researcher had noticed the students' unwillingness to engage in English speaking activities in classes. During this period, some of the causes of this unwillingness such as anxiety and lack of confidence were singled out. This initial ana- lysis formed the cut-off point for the intervention and gave an idea of how the students in this investigation viewed speaking in English.

The next step in the evolution of the study took the form of the planning phase – this is where the intervention developed the plans to incorporate the SmallTalk2Me AI tool. Teaching students to open lesson activities was constructed around the Presentation, Practice, and Production (PPP) model (Harmer, 2007). This lesson plan was chosen for its rigidity and at the same time flexibility, resulting in the most suitable one for the study. Besides that, the planning stage included formulating the aims of every lesson activity so that students were aware that speaking practice is possible in a safe and non-threatening environment. As well as during other stages of planning, detailed outlines of the lessons were also prepared that assigned role-plays, practice and feedback assisted by the AI tool.

The action phase began after the planning phase, in the form of classroom interaction for a period of eight weeks. The SmallTalk2Me tool was integrated into practice activities to allow students to participate in role-play activities as conversationalists. Indeed, students started with direct conversations to help them get used to the tool, after which they were encouraged to engage in speaking activities with less guidance. Thus, they began to speak with more confidence, beginning with highly structured practice to less dependent production.

There is no doubt that during each phase, feedback was obtained from students, and their progress was monitored during the reflection phase. This phase was underlying for adjusting the intervention when appropriate depending on the responses and difficulties the students experienced. If, for instance, a group of students had difficulties in some topics because of their pronunciation or fluency issues, they were given additional relevant exercises in the next sessions. This thoughtful action made sure that the intervention was targeted and effective for the participants and improved with every cycle.

Overall, this research came to an end with the analysis and reporting phase, which redesigned and organized all the relevant information with an intention of showing how SmallTalk2Me affected students' oral English. The quantitative data regarding learners' knowledge of the AI tool, pre-tests, post-tests, were evaluated together to assess the level of skill acquisition. These last steps were very useful when considering what the effects of the intervention in the language learning context were and what implications could be drawn regarding the usage of AI tools in language learning.

RESULTS

Correspondingly, within this section, the results of the intervention plan directed towards enhancing the speaking skills of the participants through the use of the AI SmallTalk2Me tool are presented. The results are viewed in the light of pretest and posttest results and statistical analysis producing an all-round assessment of the impact the tool had on the development of speaking ability. Moreover, this section also shows how the goals of the study have been achieved during the whole research. Thus, the results are illustrated by means of tables and with detailed accounts or interpretations portraying

the development in pronunciation, fluency and other components of speaking ability attained by the respondents.

PRE-TEST AND POST TEST RESULTS

Objective one:

To assess the effectiveness of SmallTalk2Me artificial intelligence-based tool in improving English speaking skills among tenth grade students.

PRE-TEST RESULTS

Table 1. Pre-test. Central measures of Speaking skills

	N	Mean	SD	Minimum	Maximum
Fluency (2.5 points)	15	1.35	0.43	1	2.5
Pronunciation (2.5 points)	15	1.35	0.43	1	2.25
Vocabulary (2.5 points)	15	1.43	0.44	1	2.5
Grammar (2.5 points)	15	1.30	0.37	1	2
TOTAL (10 points)	15	5.18	1.24	4	8.75

The research group performed qualitative content analysis using a pre-test to gather descriptive averages regarding the speaking ability indicators. The basic measurements of the various parameters which are as follows – mean, standard deviation (SD), minimum and maximum values are presented in Table 1. In the paragraphs below, there is an analysis and interpretation of each indicator's data.

However, since the results show that the average "fluency" score is 1.35 (SD = 0.43), with scores ranging between 1.00 and 2.50, then it is obvious that most of the students still had a slight level of concentration in performing a few tasks. It is apparent that some students had better communication skills as the highest score demonstrates quite a number who performed better with the speaking tasks. A standard deviation as low as this indicates little spread, which might indicate variability in experience in speaking and/or exposure to English.

Secondly, it was established that for "pronunciation" scores, the mean is 1.35 (SD = 0.43) with a minimum of 1.00 and maximum of 2.25, These findings suggest that most of the sample is able at least at basic level to pronounce words correctly, though there exists substantial variation across the sample. Hence, the limited range of results indicates that students' pronunciation abilities are comparable, and overall performance may necessitate targeted interventions to increase clarity and accuracy in spoken English.

The "grammar" scores average 1.30 (SD = 0.37), with a minimum of 1.00 and a maximum of 2.00. The mean suggests that most students have just a basic understanding of grammar, which may limit their ability to compose correct sentences in spoken English.

The comparatively low standard deviation indicates that students' grammatical abilities are more consistent than other indicators, suggesting that concentrated grammar education might improve the group.

Overall, the pre-test results show that learners have basic speaking abilities in all categories, with small strengths in vocabulary. However, all areas require underlying work to achieve higher English- speaking competence levels.

POST-TEST RESULTS

Table 2. Post-test. Central measures of Speaking skills

	N	Mean	SD	Minimum	Maximum
Fluency (2.5 points)	15	1.8	0.30	1.5	2.5
Pronunciation (2.5 points)	15	1.83	0.33	1.5	2.5
Vocabulary (2.5 points)	15	1.8	0.31	1.5	2.5
Grammar (2.5 points)	15	1.77	0.26	1.5	2.25
TOTAL (10 points)	15	7.2	1.2	6	9.75

This table shows the post-test results after the intervention plan was applied. The post-test statistics reveal that each indicator improved from the pre-test, demonstrating the intervention's favorable influence on students' speaking skills.

The average "fluency" score is 1.80 (SD = 0.30), with a range of 1.50 to 2.50. This shows a moderate degree of fluency across the group, with some students approaching the maximum limit. This improvement, compared to the pre-test mean of 1.42, suggests that students were able to communicate more freely and spontaneously by the end of the intervention. This large increase in fluency indicates that the post-test gave a clearer chance for students to practice uninterrupted speaking, resulting in improved expressiveness and comfort throughout their speech.

The "pronunciation" score is 1.83 (SD = 0.33), with a range of 1.50 to 2.50. This score is much higher than the pre-test average of 1.28. The enhanced pronunciation score indicates that learners made improvement in creating clearer and more precise sounds, with a few students receiving the highest possible score in this area. The increased consistency in pronunciation throughout the group indicates that students were able to understand more accurate pronunciation skills following the intervention, which was a major emphasis of the post-test.

On the other hand, the "vocabulary" average score is 1.80 (SD = 0.31), with values ranging from 1.50 to 2.50. This is somewhat higher than the pre-test means of 1.43, indicating improvement in the use of suitable and diverse language. The development in this area can be attributed to continual practice and exposure to a new language throughout the course. Although students' language use varied, the post-test findings indicated a greater capacity to incorporate taught terminology into their replies. Interestingly, vocabulary was the second highest-scoring factor, after only Pronunciation, emphasizing the significance of vocabulary development in total language ability.

With a range of 1.50 to 2.25, the average score for "grammar" is 1.77 (SD = 0.26). This is a modest increase above the pre-test mean of 1.27. While grammar application improved, it remained the lowest signal in the post-test, as it had been in the pre-test, indicating that students continue to struggle with consistent grammatical accuracy. Notwithstanding these difficulties, the positive change suggests that there was advancement in better sentence structure.

The post-test statistics show that the intervention significantly improved students' speaking skills across the board, with the most noticeable gains in Pronunciation and Fluency. Grammar made progress, but it remains a difficulty for many participants. The increase in vocabulary shows considerable progress; however, variability persists, suggesting that additional intervention might further enhance students' language skills.

STATISTICAL COMPARISONS OF PRE-TEST AND POST-TEST

Table 3 *Normality test Shapiro Wilk of the pretest and posttest about Speaking skills*

	Shapiro-Wilk	
	W	**p**
Pretest	0.899	0.025
Posttest	0.923	0.105

The Shapiro-Wilk test findings for the pretest and posttest data on speaking abilities provide underlying information about data distribution. The pretest (W = 0.899, p = 0.025) has a p-value of less than 0.05, suggesting that the data does not follow a normal distribution. This shows that the distribution of speaking skill ratings before the intervention was skewed or abnormal in some way. This might be due to factors such as a greater range in student performance or other variables that influenced the results at the start of the research.

In contrast, the posttest (W = 0.923, p = 0.105) has a p-value larger than 0.05, indicating that the data follows a normal distribution. This means that the speaking skills scores following the intervention are more equally distributed and follow a standard distribution pattern, with less skew. This transition from a non-normal to a normal distribution may imply a more consistent gain in speaking abilities because of the intervention under consideration.

DISCUSSION

The purpose of this study was to investigate the effect of the AI tool SmallTalk2Me on the speaking abilities of A2-level students in an EFL setting. To investigate this, an action research technique was used, including pretests and posttests. The investigation took off with the main research question which was formulated as follows: How does the SmallTalk2Me artificial intelligence-based tool enhance English speaking skills among Tenth-grade students at a private high school, 2024-2025 academic year? Besides, the sub-question: How effective is the SmallTalk2Me artificial intelligence-based tool in assessing English

speaking skills among tenth grade students? was added to address some of the more specific aspects to the research.

First, the study's results offer a kind of evidence that can be adequately described as proof of SmallTalk2Me's ability to assist students in improving speaking abilities. In answer to the main study question, the data presented indicated that there was a noticeable improvement in students' overall speaking abilities which include pronunciation and fluency in the language. This aligns with studies like Zou et al. (2023), which state that AI technologies enhance articulation by providing immediate feedback.

Answering the first sub question, "What specific aspects of speaking skills are most improved by using the SmallTalk2Me tool?" The results clearly showed that pronunciation and fluency were the most improved indications. The tool's phonemic aid and preset recall retrieval cues were highly effective in pronunciation helping learners to achieve their phonetic correctness. Additionally, vocabulary improved somewhat, with findings comparable to those of Rahimi and Zhang (2020), who suggested that additional vocabulary enrichment techniques are necessary for AI systems to function well. However, grammatical growth was restricted, most likely due to the tool's conversational orientation, which prioritizes fluency over structural accuracy.

Despite these results, the apparent improvements, especially in fluency and pronunciation, may be explained by other causes. For instance, the organized practice sessions throughout the intervention may have had an equal impact on the results as the instrument itself. In this regard, Speech Recognition, which is a major element of SmallTalk2Me, earned moderate response in the questionnaire. This might be due to technological restrictions, such as difficulty distinguishing between different accents or pronunciation variances. Moreover, the comparatively low gain in grammar may reflect the tool's emphasis on conversation, which prioritizes communication flow above grammatical clarity.

The study was conducted as action research with a small sample of A2-level students from a private high school. As a result, the outcomes may only apply to a variety of populations. Besides, the study was based only on SmallTalk2Me and self-reported impressions, which might add bias. Nonetheless, the results are more credible on account of their consistency with previous investigations. Future research should use larger sample sizes and more AI technologies to produce more reliable data. Despite its limitations, the study demonstrates AI technologies' potential for boosting speaking abilities and provides significant insights for their use in EFL contexts.

CONCLUSIONS

This study underscores the potential of the AI-powered tool SmallTalk2Me in enhancing English-speaking skills among secondary students in an Ecuadorian private school. The results demonstrate the tool's effectiveness in developing key components of oral competency, such as pronunciation, fluency, and vocabulary acquisition.

The greatest improvement was shown in pronunciation, where students received real-time feedback and speech recognition tools that improved their phonetic correctness. Similarly, fluency improved considerably, as the tool's conversational practice settings encouraged continuous speaking. These findings are consistent with data indicating that AI technologies boost meaningful language engagement.

Furthermore, the study highlights the tool's ability to foster interactivity and motivation in English language learning. SmallTalk2Me's engaging features, such as conversational scenarios and immediate feedback, created a dynamic learning environment that encouraged active students' participation. This interactive approach not only increased

students' confidence in speaking but also sustained their motivation to practice consistently, reinforcing their commitment to improving oral proficiency.

Teachers should play a central role in guiding students' learning experiences while using SmallTalk2Me to create meaningful opportunities for authentic communication, ensuring that students develop well-rounded speaking skills.

Future research should explore how AI tools like SmallTalk2Me can be integrated with communicative, teacher-led activities to enhance spontaneous interaction and pragmatic language use. In addition, studies with larger and more diverse samples across different educational contexts would provide deeper insights into the long-term effectiveness of AI in language learning. Investigating student perceptions and engagement over extended periods would also help refine AI-based language learning interventions.

CONTRIBUCIONES DE LOS AUTORES

Camila Alexandra Jiménez Iñiguez: investigación, redacción – borrador original.

Marcia Iliana Criollo Vargas conceptualización, validación, redacción – revisión y edición.

IMPLICACIONES ÉTICAS

Los autores declaran que no existen implicaciones éticas.

CONFLICTO DE INTERÉS

Los autores declaran que no existen conflictos de interés financieros o no financieros que podrían haber influido en el trabajo presentado en este artículo.

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