https://doi.org/10.69639/arandu.v13i1.1966

Talkpal as a Digital Tool to Support B1 English Speaking Skill Development

Talkpal como herramienta digital para apoyar el desarrollo de la habilidad de hablar inglés B1

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Artículo recibido: 10 diciembre 2025 -Aceptado para publicación: 18 enero 2026
Conflictos de intereses: Ninguno que declarar.

ABSTRACT

The implementation of artificial intelligence (AI) tools in second language learning is presented as a transformative strategy for promoting communicative competence, one of the most significant challenges for students and one that teachers seek to optimize. This article aims to conduct an in-depth analysis of the impact of the digital tool Talkpal, a personalized conversational platform powered by AI that offers an interactive learning experience, as a scaffolding strategy to optimize oral proficiency in B1 English learners. To achieve this objective, this research employs a mixed-methods approach, combining quantitative and qualitative methods to analyze students' performance before and after using the Talkpal application and to obtain a comprehensive understanding of the relationship between the dependent and independent variables. Results were obtained through various instruments, including classroom observation, initial and final survey on students' perception of the Talkpal tool, pre- and post-intervention speaking tests assessed using a B1-level rubric, and exit tickets collected after each session. The

findings, based on a sample of 22 B1-level students, suggest that the conversational tool creates a real, dynamic, adaptive, and interactive practice environment, leading to improvements in fluency and pronunciation, as well as greater student motivation and confidence in oral communication.

Keywords: artificial intelligence, Talkpal, speaking skill, B1 learners

RESUMEN

La implementación de herramientas con inteligencia artificial en el aprendizaje dentro de una segunda lengua se presenta como una estrategia transformadora para promover el dominio de la competencia comunicativa, uno de los retos más significativos para los estudiantes y que los docentes buscan optimizar. Este artículo tiene como objetivo analizar en profundidad el impacto de la herramienta digital Talkpal, una plataforma conversacional y personalizada impulsada por IA con experiencia de aprendizaje interactivo como estrategia de andamiaje para optimizar la competencia oral en estudiantes de inglés B1. Para alcanzar el objetivo la investigación emplea un enfoque mixto, combinando métodos cuantitativo y cualitativo para analizar el rendimiento antes y después del uso de la aplicación Talkpal y obtener una comprensión integral entre las variables dependiente e independiente. Los resultados se obtuvieron mediante instrumentos como la observación, encuesta inicial y final sobre la percepción de la herramienta Talkpal, pruebas de expresión oral previas y posteriores evaluadas con una rúbrica de nivel B1, y "exit tickets" después de cada sesión. Los hallazgos, aplicados a una muestra de 22 estudiantes de nivel B1, sugieren que la herramienta conversacional genera un entorno de práctica real, dinámica, adaptativa e interactivo, lo que lleva a una mejora en la fluidez y pronunciación, junto con una mayor motivación y confianza del alumnado en la comunicación oral.

Palabras clave: inteligencia artificial, TalkPal, habilidad oral, estudiantes de nivel B1

INTRODUCTION

In recent years, the educational landscape has experienced a significant transformation, driven largely by the integration of digital tools. These technological resources have transformed traditional teaching and long-established learning paradigms, offering learners greater autonomy and opportunities to practice beyond the classroom (Du & Daniel, 2024). The adoption of mobile devices and remarkable advancements in the field of natural language processing (NLP) and artificial intelligence (AI) have accelerated the use of such tools across diverse educational contexts globally, making learning more accessible and engaging for students (Chen, 2023).

Educators worldwide are continuously seeking innovative methods to support communicative competence in English as a Foreign Language (EFL), especially for intermediate learners aiming to reach advanced levels of proficiency. As part of this movement, AI-powered tools such as Talkpal have gained significant attention for their potential to enhance speaking skills through interactive practice, personalized feedback, and adaptive learning pathways (Pozo-Sánchez et al., 2021). The capacity of these tools to provide an instant error correction, specialized exercises, and activities focused on individual performance has made a remarkable difference compared to traditional methods, fostering a more effective learning experience (Lee, S. M. 2019).

However, despite all these technological advancements, speaking remains a major challenge, especially for B1-level EFL learners. Students frequently experience difficulties with fluency, accuracy and confidence in real-time conversations (Khlaisang & Sukavatee, 2023). Many learners have limited access to authentic English-speaking opportunities outside the classroom and insufficient chances for a real-time oral practice. This lack of exposure can create speaking anxiety, becoming a significant barrier to progress and discouraging students from actively participating in communicative activities (Mora et al., 2023).

Consequently, there is a need to evaluate and explore digital tools that can effectively support learners in improving their oral proficiency and foster self-confidence in spoken English. While digital tools have been developed to address these persistent challenges, the effectiveness of the Talkpal platform has not been extensively examined in the context of speaking skills development, particularly for B1-level learners. Therefore, further research is required to determine whether this innovative tool can significantly improve speaking skills among B1 students to help them achieve higher English proficiency.

1.1 Goal of the study

The goal of the present study is to evaluate the effectiveness of integrating the digital tool Talkpal in enhancing speaking skills of B1-EFL level learners, with the aim of helping them achieve a higher level of English proficiency.

MATERIALS AND METHODS

Research design

According to Pilcher and Cortazzi (2024), qualitative and quantitative research are two complementary approaches, which is why many researchers combine them by integrating the numerical precision of quantitative analysis with the contextual depth of qualitative inquiry. This combination allows research to transcend methodological boundaries and foster a more holistic and flexible understanding of social phenomena. Regarding the methodology used in this study , a mixed-methods approach was employed, integrating both quantitative and qualitative methods. This approach allowed for a more thorough investigation of the results, within a quasi-experimental design that included a pre-test and a post-test administered to a single group over a period of four weeks. During this period, students carried out speaking practice activities using Talkpal, both in class and independently at home.

The quantitative component included a pre- and post-test along with a speaking rubric, as well as structured questionnaires administered at the beginning and end of the intervention to obtain numerical data on students' progress and perceptions regarding the impact of the Talkpal digital tool on oral production. The qualitative component was based on classroom observations and exit tickets completed at the end of each class session, which provided descriptive information on students' participation, motivation, and experiences while using Talkpal. This combination of methods allowed for data triangulation, strengthening the validity and depth of the study.

Population and sampling

This study was conducted at a private high school in Ecuador's coastal region. The study population consisted of 120 second-year high school students who had English integrated into their academic schedule as a mandatory component of the curriculum. According to the Common European Framework of Reference for Languages (CEFR), these students were at a B1 proficiency level, corresponding to an intermediate level of language competence.

The sample selected for this study consisted of 22 second-year science students who participated in the pedagogical intervention using the digital tool Talkpal. As Turner (2020) points out, “Sampling is the selection of a subset of the population of interest in a research study. In the vast majority of research endeavors, the participation of an entire population of interest is not possible, so a smaller group is relied upon for data collection” (p. 9). This means that in most cases, the participation of the entire population is not possible, therefore, a smaller representative group is selected for data collection.

Participants in this study were selected through purposive convenience sampling, as those students who met specific criteria at level B1 proficiency confirmed through prior diagnostic test, regular attendance, and voluntary participation were selected to take part in all project activities. Purposive convenience sampling is widely used in mixed-methods research as it allows for the

selection of participants who best represent the conditions of the phenomenon under study (Taherdoost, 2020).

Table 1
Sample population

Population	Participants	Percentage
Women	12	54.55%
Men	10	45.45%
Total	22	100%

Source: Authors's elaboration, 2025

Data Collection Techniques and Instruments

In this study, the independent variable was the implementation of Talkpal, an artificial intelligence-based digital tool designed for oral expression practice. The dependent variable was the English-speaking ability of B1-level students. In order to obtain data that would allow a comprehensive assessment of the relationship between both variables, four main instruments were carefully selected to collect quantitative and qualitative data.

These instruments were adapted considering several key aspects, such as the students' age, level of English proficiency, and the technological resources available to them, with the aim of ensuring the validity of the data obtained during the four-weeks intervention. The combination of these techniques provided objective evidence of oral performance, as well as descriptive information on students' motivation, participation, and perceptions throughout the learning process.

Oral tests (pre- and post-test): Students took an oral test before and after the intervention, lasting approximately 5 minutes, which included answering guided questions. The conversations were recorded and evaluated using an analytical rubric aligned with five criteria: pronunciation, fluency, vocabulary, grammar, and confidence. Each criterion was scored on a scale of 1 to 2, with a maximum score of 10.

Questionnaires (initial and final): Closed-ended yes/no questionnaires were administered to obtain accurate and easily quantifiable information about students' perceptions and experiences. The initial questionnaire examined students' self-perceptions of their speaking skills and familiarity with AI-based digital tools. The final questionnaire included additional items on usefulness, motivation, and satisfaction with using Talkpal.

Observation: During classroom sessions, the authors of this research conducted observations to analyze students' participation, interaction, and attitude towards the use of the Talkpal digital tool to improve speaking skills. This technique complemented the quantitative data with qualitative insights into students' behavior during the intervention.

Exit tickets: At the end of each weekly Talkpal session, students answered brief reflective questions such as: “One thing I learned today was…”, “Something I found difficult…”, and “A suggestion for the next session…”. These responses were analyzed as a qualitative source of students’ immediate perceptions and reactions to the activities.

Data Analysis Procedures

The data collected in this research were analyzed using both quantitative and qualitative procedures. Quantitative analysis was applied primarily to the results of the oral tests (pre-test and post-test) and the closed-ended (yes/no) questionnaires. Qualitative analysis was used to examine information from classroom observations and the exit tickets at the end of each session.

In the quantitative analysis, the scores obtained from the pre-test and post-test were organized into comparative tables to observe changes in students' oral performance after the intervention. Questionnaire data were processed using frequency and percentage analysis to identify students' perceptions of the digital tool. In the qualitative analysis, the observation notes and open-ended responses from the exit tickets were examined thematically. This analysis provided complementary information to the quantitative results, offering a deeper understanding of the tool's impact on the learning experience.

Ethical Consideration

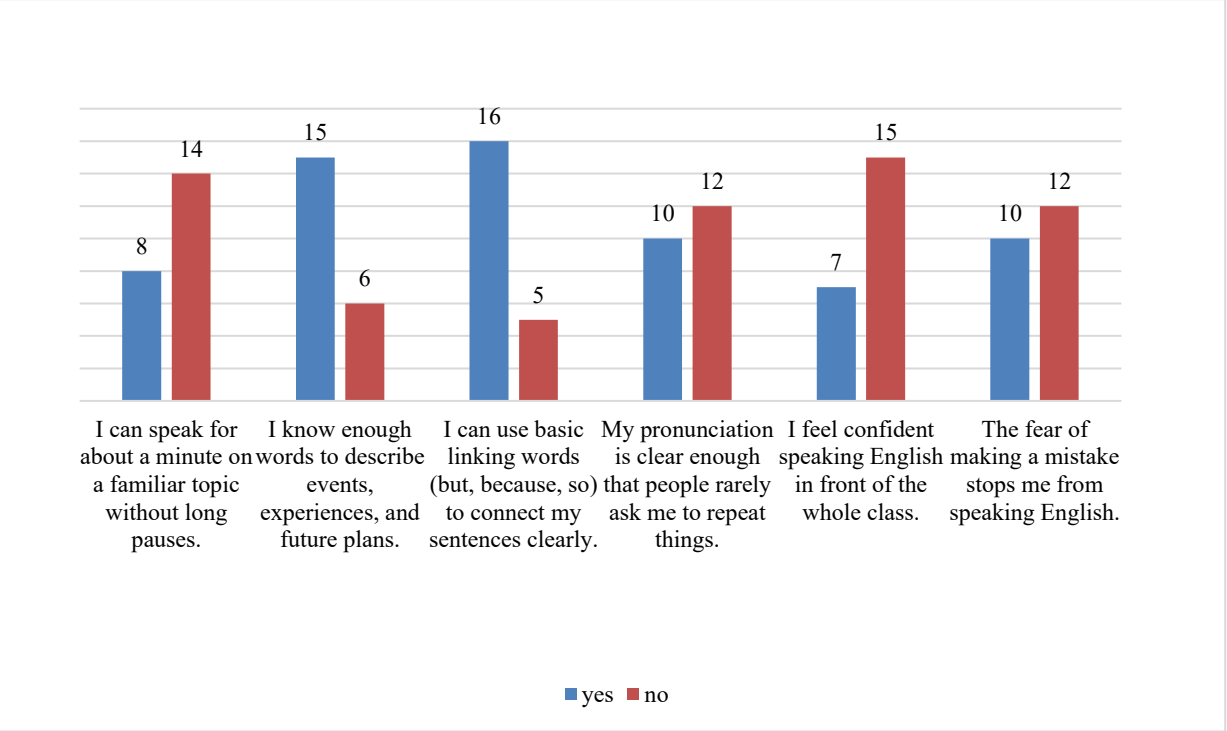
This research project was conducted in strict accordance with ethical standards to safeguard the rights, dignity, and well-being of all participants. Prior informed consent was obtained from institutional authorities, students, and their legal guardians. Participants were provided with a clear and complete explanation of the objectives, procedures, potential risks, and benefits of the research.

Participation was entirely voluntary, and all participants were guaranteed the right to withdraw from the study at any time without academic or personal consequences. All data collected were securely stored and accessed only by the principal investigator. All students in the selected group had equal access to the digital tool and support throughout the intervention. This study also complied with institutional guidelines and was supervised and approved by academic advisors, ensuring compliance with all ethical standards in the design and implementation of the research.

RESULTS AND DISCUSSION

Figure 1

Yes-No pre-survey questions



Source: Author's elaboration, 2025

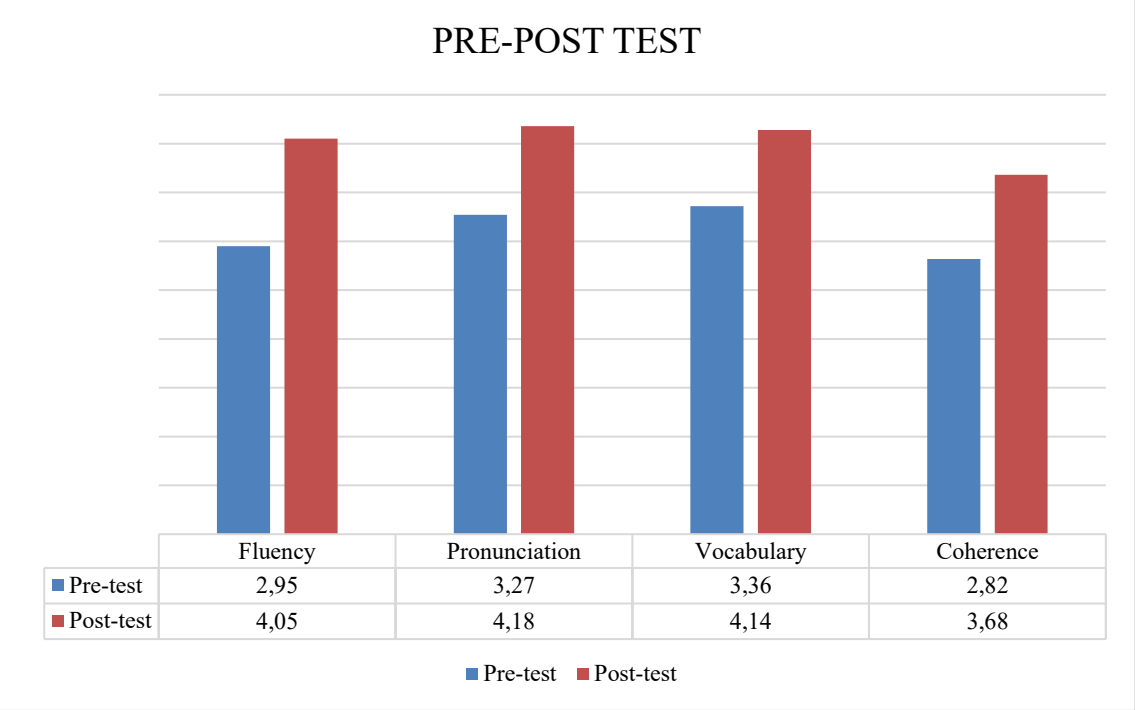
During the diagnostic phase, a pre-test with a yes-no-question survey was administered to the group of students. The study analyzed self-reported speaking skills, confidence, and anxiety among Second-year Baccalaureate Science students in the Jean Piaget High School setting using a pre- and post-intervention survey framework. The results indicate a significant positive shift across all measured B1-level communicative skills, with several changes observed in both the affective domain and fluency.

The data from the bilingual cohort indicate that students began the intervention with relatively strong baseline skills in vocabulary and coherence, as evidenced by over 68% agreement in the pre-intervention results. The most substantial gain occurred in fluency, with a 45.4% increase in students reporting the ability to speak for one minute without long pauses. This improvement suggests that the use of Talkpal effectively facilitated the transition from linguistic knowledge to spontaneous language use, a key challenge at the B1 level.

The data indicate a significant reduction in psychological barriers to speaking. Student confidence increased substantially, and the proportion of students unaffected by fear of mistakes more than doubled. These results demonstrate that the tool fostered a low-stakes environment, a factor essential for effective language practice (Villafuerte-Segura & Riera-Puga, 2024).

Figure 2

Behavior of the analytic rubric criteria before and after the intervention



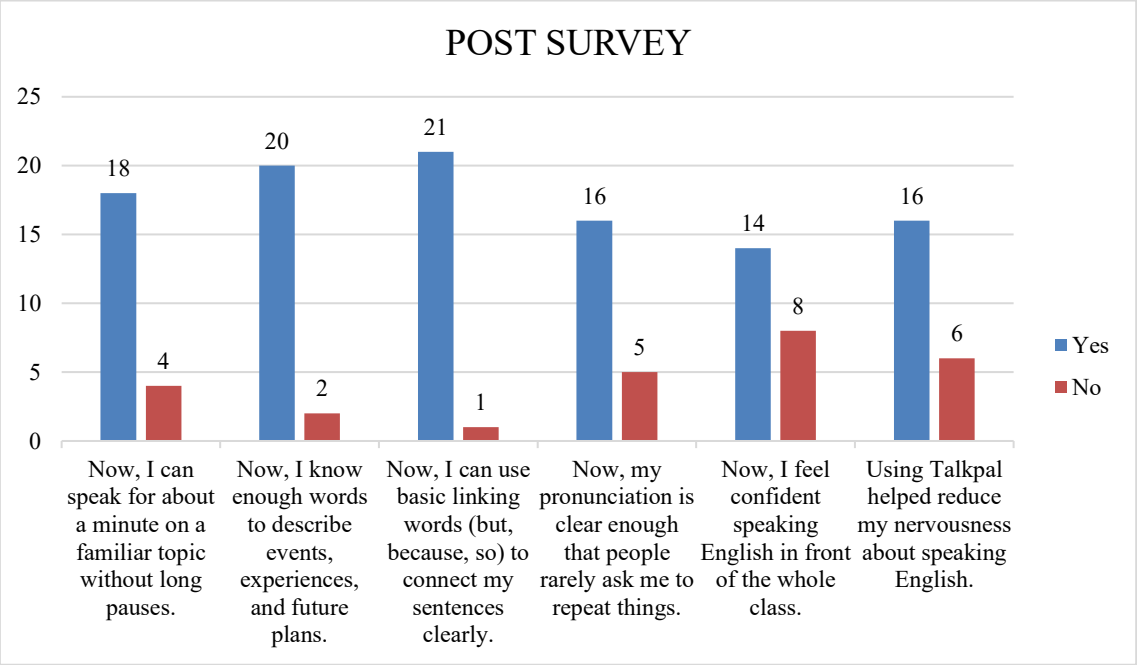
Source: Author's elaboration, 2025

The implementation of the Talkpal intervention resulted in positive outcomes in both objective linguistic assessments and subjective self-reports. Students demonstrated an **average increase of** 0.91 **points** on the 5-point speaking rubric, improving from a mean of 3.10 to 4.01. The greatest improvement was observed in fluency, with a gain of 1.10 points, suggesting that regular practice using Talkpal helped students overcome hesitation and promote spontaneous speech.

The intervention led to a 50.0% **increase in self-reported confidence,** with rates rising from 36.4% to 86.4%. This affective improvement is supported by the students' reported comfort level with the tool, as 95.5% indicated feeling more comfortable practicing with Talkpal than with their peers. This outcome addresses the anxiety barrier common in bilingual learning environments and aligns with previous research on the benefits of low-stakes practice in reducing speaking anxiety (Krashen, 1985; Lee & Chen, 2023).

Figure 3

Post survey results



Source: Author's elaboration, 2025

A majority of students reported that the intervention was highly beneficial, particularly in terms of comfort during practice. Notably, 95.5% of participants indicated a greater comfort practicing with the tool compared to practice with their peers. This finding suggests that the AI-driven, non-judgmental practice environment effectively reduced the fear of negative evaluation, a factor commonly associated with classroom performance.

The primary objective of this study, to assess the effectiveness of the Talkpal tool in improving B1-level speaking skills and confidence, is strongly supported by the data. Notable improvements in fluency, including a 1.10 mean gain and a 50% increase in confidence, highlight the tool's main benefit: promoting the **automatization** of language use at the B1 level. Fluency development depends on repetitive, low-stakes practice, which the tool consistently provides.

Talkpal, as a digital and non-judgmental AI partner, addressed two primary barriers to communicative competence: insufficient dedicated practice time and the prevalent **fear of public error**. By providing a psychologically safe learning environment, the tool encouraged students to take greater linguistic risks, such as using new vocabulary and more complex structures, and significantly reduced speaking anxiety. Enhanced self-efficacy is essential for successful language learning (Gardner, 2001) and aligns with recent research on the impact of large language models on language production (**Chomsky & Smith, 2024**). The high comfort level, with 95.5% of students preferring Talkpal over to peer practice, contributed directly to observed improvements in overall language skill acquisition.

CONCLUSION

The purpose of this study was to analyze the impact of Talkpal, a digital tool based on artificial intelligence, on the development of English-speaking skills in B1-level students. The results demonstrated that the use of this digital tool had a positive effect on the development of speaking skills during the four-weeks of intervention, improving several essential aspects of conversational engagement. These findings confirm that the integration of technological resources in the classroom can enhance meaningful learning and promote the development of communicative competence.

Based on the evidence, the quantitative data revealed significant improvements in key areas of oral production such as fluency, pronunciation, vocabulary, coherence, grammatical accuracy, and confidence areas that are often challenging for students when communicating. These improvements underscore the effectiveness and potential of Talkpal in addressing specific oral communication difficulties and helping students achieve higher levels of oral proficiency.

Furthermore, qualitative data obtained through observation and exit tickets support these findings, showing increased participation, confidence, enthusiasm, and willingness to communicate in English both inside and outside the classroom. This tool provides a safe, supportive, and non-judgmental environment, free from immediate corrections, which fostered a positive learning attitude.

The interactive and flexible nature of the platform encourages students to take control of their language learning process, practice at their own pace, and focus on the areas where they most need improvement. This student-centered approach aligns with contemporary educational principles that emphasize personalized learning and self-regulation, both essential for consistent progress in oral proficiency.

In summary, integrating Talkpal as a complementary resource to traditional teaching methods offers a dynamic and effective strategy for improving oral skills in EFL contexts. The combination of technological innovation, personalized feedback, and motivational support makes Talkpal a valuable tool for language classrooms seeking to strengthen speaking skills. This study recommends further research on digital tools like Talkpal to continue advancing teaching practices and to better address the needs of a diverse student population.

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