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EXTRANJEROS**

**The Use of the Mobile Application of Character AI to Improve Oral Fluency in EFL
Students**

**Trabajo de Titulación para optar al título de Licenciada en Pedagogía de
los Idiomas Nacionales y Extranjeros**

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DEDICATORY

First, I want to dedicate this thesis to God, who has guided me throughout this entire process. Thank You, God, for giving me the strength and courage to continue, for being the light that guided my path, and for blessing me in ways that allowed me to reach where I am today. To my parents, Diana and Pablo, whose support, guidance, and unconditional love have been constant throughout my academic journey. Your faith in me has given me the strength to overcome challenges and pursue my goals. To my aunt Sandry, for always looking out for me and supporting me from the very beginning. To my sister Danna, who despite every challenge has always been there for me, cheering me on and encouraging me to keep going. To my friends, for brightening my gray days and filling them with happiness. I dedicate this achievement to every person who believed in me and saw the potential that I sometimes struggle to see in myself. Your encouragement has meant more than you will ever know. I love you all.

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RESUMEN

El desarrollo de las habilidades orales constituye uno de los principales retos para los estudiantes de inglés como lengua extranjera, especialmente en contextos donde la exposición a la comunicación auténtica es limitada. En este contexto, la presente investigación tuvo como objetivo analizar la eficacia de Character AI para mejorar la fluidez oral en estudiantes de Inglés como Lengua Extranjera. Para ello, se adoptó un enfoque mixto que integró estrategias cuantitativas y cualitativas con el propósito de obtener una visión integral del proceso. La investigación se llevó a cabo con 16 estudiantes de cuarto semestre de la carrera de Agronomía de la Facultad de Recursos Naturales de la Escuela Superior Politécnica de Chimborazo, durante tres semanas, mediante seis sesiones estructuradas centradas en la práctica progresiva de la expresión oral con el uso de Character AI. Los datos cuantitativos se recopilaron a través de un pre-test y post-test adaptados del Cambridge Preliminary English Test (PET), junto con una rúbrica de fluidez oral, los cuales fueron analizados mediante estadística descriptiva y la prueba de rangos con signo de Wilcoxon, previa verificación de normalidad con la prueba de Shapiro–Wilk, estableciendo un nivel de significancia de 0,05. Complementariamente, el componente cualitativo incluyó una entrevista semiestructurada al docente y una revisión bibliográfica para contextualizar y respaldar los resultados. En conjunto, los hallazgos evidenciaron una mejora significativa en la fluidez oral, la confianza y la disposición para comunicarse en inglés, respaldando el uso de Character AI como recurso pedagógico complementario.

Palabras claves: Character AI, expresión oral, fluidez, Inglés como Lengua Extranjera

ABSTRACT

Developing oral communication skills is one of the main challenges for students learning English as a Foreign Language, especially in contexts where exposure to authentic communication is limited. In this regard, the present study aimed to analyze the effectiveness of Character AI in improving oral fluency in EFL students. To this end, a mixed-methods approach was adopted, integrating quantitative and qualitative strategies in order to obtain a holistic view of the research findings. This study was conducted with 16 fourth-semester students from the Agronomy program at the Faculty of Natural Resources of the Escuela Superior Politécnica de Chimborazo, over a period of three weeks, through six structured sessions focused on the progressive practice of speaking using Character AI. Quantitative data were collected through a pre-test and post-test adapted from the Cambridge Preliminary English Test (PET), together with an oral fluency rubric, which were analyzed using descriptive statistics and the Wilcoxon signed-rank test, after verifying normality with the Shapiro–Wilk test, establishing a level of significance of 0.05. Additionally, the qualitative component included a semi-structured interview with the teacher and a literature review to contextualize and support the results. Overall, the findings showed a significant improvement in oral fluency, confidence, and willingness to communicate in English, supporting the use of Character AI as a complementary teaching resource.

Keywords: Character AI, speaking, fluency, English as a Foreign Language

CHAPTER I. INTRODUCTION

1. Introduction

English has become one of the most influential languages in the world as it is considered the universal language used globally in communication, and different fields such as education, economics, and technology. Therefore, proficiency in English opens up countless opportunities not only in the personal sphere, but also in the academic and professional environment (Bihari Dash, 2022; Ilyosovna, 2020; Zhang, 2024). Being competent in this language allows people to access a wide range of research, academic materials, and online resources. Further, it enhances professional opportunities, as many organizations require their employees to communicate effectively with international partners. For this reason, in Ecuador, as in many other non-English-speaking countries, English is a key subject in the national curriculum since it promotes intercultural understanding and internationalization.

Despite the importance of this language, the level of fluency is poor especially in South American countries like Ecuador. There is a noticeable gap, due to various factors that prevent students from practicing the language, making it harder for them to progress. To address these persistent challenges, educators have been looking for ways to implement technology to improve the learning process, promoting more effective practice. In addition, due to the development and implementation of artificial intelligence, these tools have become extremely helpful, as they facilitate the creation of personalized experiences that not only increase motivation but also provide students with autonomy and immediate feedback during the learning process (Chavarría, 2025; Dai & Liu, 2024).

The potential of character-based AI to improve oral skills through personalized and contextualized interactions stands out among the various AI-based applications (Napitupulu & Dalimunte, 2025). While it was not designed with the classroom in mind, its interactivity provides rich pedagogical opportunities for learning a language. However, there is still little research on these tools in the Ecuadorian educational context, particularly with regard to their impact on oral proficiency. Therefore, it is important to promote further research on how these applications can be used to enhance students' communication skills in English as a foreign language context.

Subsequently, the aim of this study was to analyze the effectiveness and potential of Character AI as a tool for improving oral fluency in English as a foreign language (EFL) among fourth-semester students in the Faculty of Agronomy at the Escuela Superior Politécnica de Chimborazo (ESPOCH). By examining the use of this application in the context of higher education, this study aimed to provide a deeper insight into how AI-based chatbots can be meaningfully integrated into English language learning.

Methodologically, the research followed a mixed-methods approach. First, a literature review was conducted to collect theoretical and empirical findings on the use of AI tools in language learning, particularly for improving oral language proficiency. This helped lay the theoretical foundations for the study. In order to measure the impact, student progress was

assessed through pre- and post-tests. Moreover, a semi-structured interview was conducted with the teacher to explore her perception of the implementation of the app. Furthermore, the results are expected to contribute to modernizing English language teaching in Ecuador, promote the integration of emerging technologies in language teaching, and help students develop greater fluency, self-confidence, and independence in oral communication.

Finally, this research is organized into five chapters. Chapter I presents the introduction and addresses the research problem, problem statement, justification, and objectives to provide a clear understanding of the purpose and scope of the study. Chapter II develops the theoretical framework, including both the research and the theoretical foundations related to oral fluency and the use of artificial intelligence-based tools in teaching English as a Foreign Language. Chapter III describes the methodology adopted, detailing the research approach, modality, type, study population, techniques and instruments, and data collection analysis and processing. Chapter IV presents the results and discussion based on quantitative and qualitative findings, analyzing the impact of Character AI on students' oral fluency. Lastly, Chapter V provides the conclusions and recommendations derived from the research.

1.1 Research problem

One of the biggest challenges for students learning a foreign language such as English is the development and improvement of speaking skills, mainly due to the lack of exposure and practice of the language. This can occur because of many aspects that have not been addressed despite the pedagogical and technological advances that had emerged globally. Therefore, several students exhibit remarkably low levels of English especially in Spanish-speaking countries, where learners rarely interact in this language, owing to fear of making mistakes, lack of motivation, or because their education is shaped by traditionalism, which impedes them from learning and practicing the language in real contexts, being these problems a determining factor in the development of this skill.

1.2 Problem statement

English has become a pivotal factor for global communication, offering a wide variety of opportunities in both educational and professional settings. For this reason, the development of oral expression is of utmost importance to achieve communicative competence, as it allows students to participate and interact effectively in real-life situations that require the direct use of the language. As Rao (2019) highlights, “the modern world demands the requirement of communication skills for the learners, and the English teachers have to teach the ELLs the needed skills so that they will improve their abilities in speaking and perform well in real-life situations.”

South America presents low levels of language proficiency compared to other regions of the world. According to the English Proficiency Index (EF EPI, 2024), South America ranks fourth among five regions analyzed, which shows a still worrying situation in terms of overall English proficiency. Furthermore, even though there is evidence of an improvement since 2020, there are countries that remain at low levels, unlike countries such as Argentina,

which has a high level of proficiency, showing an inequality in the quality of language teaching.

In the case of Ecuador, although there have been initiatives to give greater emphasis to English in the national curriculum, these have not been properly implemented in all contexts. While the Ministry of Education is responsible for developing the national English curriculum, educational institutions remain free to adapt or modify this curriculum in accordance with their specific educational goals and needs (Cardenas & Soto, 2022). As a result of this flexibility, significant differences in English language instruction have occurred between public and private schools, often resulting in unequal learning outcomes.

This problem is reflected in the country's level of proficiency in English at the regional and global level, as can be seen in the EPI, the last report of Education First in 2024 indicated that Ecuador was ranked 19th in Latin America and 82nd globally, obtaining a score of 465 out of 700. These results mean, in turn, that the students' communicative competencies were not fully developed in the classroom. That is to say, a reduced part of the Ecuadorian population has the ability to communicate effectively in the language considered universal.

The previously mentioned circumstances were evidenced while the researcher was carrying out her pre-professional internship at the Faculty of Natural Resources of the Escuela Superior Politécnica de Chimborazo (ESPOCH), where it was evidenced that the level of English proficiency presented significant variations influenced by several factors, among them the social context. In particular, they had trouble speaking, mainly due to factors such as a lack of interaction and practice in using the L2. Learners often struggled to form complete sentences, frequently resorting to single words or phrases. Their speech also lacked coherence and grammatic accuracy, with common errors in verb tenses, sentence structure, and pronunciation.

Furthermore, emotional and motivational factors played a significant role in these challenges. Most of the students avoided speaking activities for fear of making mistakes or feeling embarrassed in front of their peers, thus hindering their active participation in oral activities. Likewise, several students stated that their motivation to learn English was poor, as they considered it irrelevant to their major, agronomy. This absence of connection between language learning and their academic or professional interests reduced their engagement and motivation, leading to minimal effort in practicing the language.

Under these circumstances, there is a clear need to implement innovative and relevant strategies that make language learning more meaningful and engaging for students. In this regard, interactive tools based on artificial intelligence (AI), such as Character AI, could provide a motivating and stress-free environment for oral practice, helping students overcome linguistic and emotional barriers while boosting their confidence and language fluency.

1.3 Problem Formulation

How effective is the use of the mobile application Character AI in improving oral fluency in students of English as a Foreign Language?

1.4 Justification

This study addresses the need to investigate the educational potential of artificial intelligence as a complementary tool for improving oral fluency in EFL contexts. Overcoming persistent gaps in English learners' speaking skills is both a pedagogical necessity and an academic priority, especially in higher education, where opportunities to practice English remain limited. In Ecuadorian institutions, despite curricular efforts to strengthen communication skills, many students continue to demonstrate low levels of linguistic competence and confidence when speaking, highlighting the need to explore innovative and accessible alternatives that effectively address these challenges.

From a theoretical standpoint, this study contributes to future research on the integration of artificial intelligence in language teaching. Despite the increasing presence of digital tools in educational institutions, there is a lack of empirical evidence on the pedagogical use of AI-based conversational apps to improve oral language skills, particularly in the Ecuadorian context. By exploring the implementation of Character AI in a real educational setting, this research adds contextual insights to current discussions on technology-assisted language learning.

From a practical insight, the research aims to provide guidance to educators interested in adopting innovative strategies to promote meaningful English language practice. Indeed, the structured use of accessible and adaptable tools such as Character AI, showed potential for improving fluency and confidence in communicating in a foreign language, providing significant benefits to both educators and students. Likewise, this research responds to the need for innovation in higher education, where strong English communication skills are essential for academic and professional development.

Lastly, the research is feasible owing to the availability of bibliographic sources, technological resources, institutional support, and participant accessibility. At the same time, its mixed-methods design reinforces the validity of the results and offers a methodological framework that can serve as a reference for future studies exploring the applicability of AI in contexts of teaching English as a Foreign Language.

Broadly, this research contributes to the growing discussion on the pedagogical integration of artificial intelligence in EFL teaching. By providing contextualized empirical evidence and a structured pedagogical intervention, the study aims to support both learners and teachers in improving oral fluency through innovative technological resources. Finally, it offers a practical, research-based framework that can guide future implementations of AI-assisted language learning in similar higher education contexts.

1.5 Objectives

1.5.1 General

- To analyze the effectiveness of the mobile application Character AI to improve oral fluency in English as a foreign language university students.

1.5.2 Specifics

- To conduct a bibliographical review about the use of Character AI to improve oral fluency in English as a Foreign Language (EFL).
- To design and apply activities with the use of Character IA to improve oral fluency.
- To evaluate oral fluency through the use of Character AI.

CHAPTER II. THEORETICAL FRAMEWORK

2. Research Background

An important study closely aligned with the present research was conducted by Napitupulu and Dalimunte (2025), entitled “*A study of students’ perception of character AI in practicing English speaking fluency.*” The authors explored students' perceptions of character AI as a tool for improving their oral fluency in English using a qualitative phenomenological approach. The study revealed that regular interaction with character AI led to significant improvements in students' oral performance, notably regarding fluency, vocabulary acquisition, and sentence formation. Moreover, participants reported a boost in their confidence, a reduction in hesitations, and a decrease in anxiety levels because of the free environment that AI provides.

Another study that contributes to understanding AI-based tools in language learning was conducted by Padilla et al. (2025), titled “*Mobile Applications for Enhancing Oral Fluency in English as a Foreign Language Learners: A Systematic Review.*” This study aimed to conduct a systematic review of recent research on mobile platforms that use artificial intelligence and their effectiveness in developing oral fluency among EFL learners, after which it was concluded that mobile applications have a positive impact on oral fluency due to features such as real-time feedback, personalized practice, and the promotion of student autonomy. However, despite their effectiveness, challenges related to the digital gap and algorithmic limitations were also identified.

Similarly, Aliakbari et al. (2025) carried out a study titled “*Exploring the Impact of AI Chatbots on EFL Learners’ Conversational Proficiency*”, which focused on investigate the impact of regular interaction with AI chatbots to improve the conversational skills of English learners, focusing specifically on fluency, vocabulary, and grammatical accuracy. For this purpose, a quasi-experimental study was conducted, which revealed significant improvements in students' fluency and vocabulary, along with moderate progress in grammatical accuracy. Additionally, participants reported increased confidence and reduced anxiety when speaking. These results provide empirical evidence of the effectiveness of AI chatbots in improving specific aspects of oral proficiency, supporting their role as complementary tools in teaching English as a foreign language.

The collective findings of these three research articles clearly demonstrate that AI-powered mobile apps, particularly those like Character AI, can support the development of conversational fluency in English language learners. Across various methodologies, including qualitative explorations of student perceptions, quasi-experimental studies measuring improvements in language proficiency, and systematic reviews synthesizing the existing literature, a common conclusion is that these AI tools can improve fluency, vocabulary, and confidence while reducing speaking anxiety.

3. Theoretical Background

3.1 Character AI as a Conversational Tool for EFL Learners

3.1.1 Description of Character AI

Character AI is a type of chatbot. According to Thompson et al. (2018) chatbots, also known as “conversational agents,” are digital tools designed to imitate human communication and interact with users by engaging in conversational exchanges. Nevertheless, this app functions as an interactive platform that allows users to have immersive, human-like conversations through virtual characters using natural language processing. Unlike traditional chatbots, the app allows users to not only chat, but also create personalized AI characters with their own personalities, voices, and backgrounds (Character.AI, 2025).

This platform offers the possibility to use the voice of celebrities, animes, or cartoons, and give them a specific role. Additionally, one advantage is that each chat or story can be stored, keeping the characters and their voices throughout the conversations. This enhances realism, making users feel more engaged and eager to continue the interaction. In this way, the high level of personalization transforms each conversation into a unique experience shaped by the creator's intention (AI Dude, 2023).

3.1.2 Educational Potential of Character AI

The potential of character AI in the field of education according to Filatov (2024), relies on its capability to assist in the development of communication skills in English as a foreign language through innovative and accessible virtual interactions. Likewise, based on its features, it is possible to point out three beneficial characteristics for improving speaking skills: personalized interaction, real-life simulation, and reduction of social pressure.

Primarily, the fact that this app allows learners to customize virtual characters and create their own experience tailored to their preferences and necessities promotes a meaningful interaction and learning environment. Additionally, the process becomes more manageable adapting the style and speed as required. Therefore, it is possible to increase student autonomy in the learning process, as AI will provide assistance by focusing on the parameters established when creating the character.

Furthermore, the possibility of creating communication scenarios similar to real ones with characters that appeal to students, fosters wider interest and motivates them to practice persistently. As Napitupulu & Dalimunte (2025) manifest, that having conversations with AI characters, resulted in a significant improvement in oral fluency due to the immersive and approachable dialogue as well as increased student participation. In this way, communication skills are improved by training students to face real-life situations with greater confidence.

Additionally, its use ensures a comfortable practice environment completely free from the stress and nervousness that often comes with interacting with native speakers or in face-

to-face situations. AI-generated characters can significantly improve learning experiences, as students create engaging virtual instructors or peers with whom they can easily connect. With these characters, students can engage in natural dialogue, as if they were talking to someone they know and trust (Pataranutaporn et al., 2021). Consequently, students have the freedom to practice without fear of making mistakes, in an environment where they will not feel judged, helping to overcome shyness and insecurity in the use of the foreign language.

3.1.3 How to implement Character AI for developing oral fluency

Based on recent studies, as well as the experiences reported in the scientific journal UMM and in the study by Napitupulu & Dalimunte, (2025) the following structured strategy is proposed for incorporating Character AI into the improvement of oral fluency:

1. Introduction: It is essential to familiarize students with the features and functionalities of the application. Explaining how the tool will be used can help them feel more confident and comfortable during the activities.

2. Character design and contextualization: Before involving students in direct interaction, the teacher together with their students have to design and shape the AI characters, considering its personality, story, and role, in accordance with their specific goals.

3. Gradual implementation: This tool can be used gradually in controlled activities such as short dialogues, role-plays, or vocabulary practice. Later, students can become familiar with it and gain confidence, leading to more spontaneous interactions that encourage freer communication and fluency development.

5. Complementary teacher feedback: Even though Character AI provides instant feedback, monitoring and reviewing student performance remains essential for teachers. By analyzing interactions with students, teachers can identify areas for improvement in fluency, spontaneity, and accuracy that AI may not fully recognize.

It is also important to consider that this app is mainly designed for users over 16 years of age, as there is content that may not be suitable for children. For this reason, it is essential to always work under the guidance of a teacher. Although it offers several features that facilitate the learning process and language practice, it can also have some disadvantages, such as the risk of overreliance on technology, lack of emotional feedback, or occasional inaccuracies in language responses. In addition, it should be considered that in order for the AI to work more effectively, it must be provided with sufficient information, clearly specifying the desired role according to needs and preferences, otherwise it may present failures or undesirable results.

3.2 Mobile-Assisted Language Learning (MALL)

3.2.1 Definition and Principles of MALL

Mobile-Assisted Language Learning (MALL) is an approach focused on the use of mobile technology to facilitate and enhance the language learning process. As stated by Aliakbari & Mardani (2022), “MALL is a new learning strategy that improves language learning by utilizing handheld and portable gadgets such as smartphones, tablets, MP3/MP4 players, and personal digital assistants.” Therefore, MALL not only represent a technological advancement but also an opportunity to improve the way students learn a new language from their devices.

Moreover, Miangah & Nezarat (2012) manifest that “MALL can be considered an ideal solution to language learning barriers in terms of time and place.” It allows students to learn outside the classroom environment. Whether from home or while traveling, all that is required is an internet connection. Hence, students will not have the excuse of not being able to attend classes. In addition, there is flexibility in the schedule, enabling them to practice in their free time at their own convenience.

3.2.2 Effectiveness of Mobile Apps in Oral Practice

Over the last few years, the use of mobile applications has significantly increased and gained attention due to its wide range of benefits like its accessibility, flexibility, and effectiveness. Different scholars have underscored its relevance in today’s globalized education. Moreover, their studies have examined how the implementation of these tools can contribute to enhance the speaking skill. The investigations revealed that these applications enable students to actively practice through personalized conversational simulators that also integrate specialized software that function as teachers since they guide, correct mistakes, and provide feedback. For instance, research on educational apps such as ELSA SPEAK, Speechling, and Cake report positive result, and point out a significant improvement in pronunciation, intonation, and fluency (Albedah, 2025; Alenezi & Alenezi, 2025; Du & Daniel, 2024; Hazaymeh et al., 2024; Padilla et al., 2025; Xuhong et al., 2025).

Besides the existence of platforms specifically designed for educational purposes, there are various non-educational applications that offer a range of features which, through the use of AI, are potentially useful. Although these non-educational applications are primarily designed for leisure or social purposes, many of their interactive features can be adapted for educational purposes and provide learners with alternative ways to practice and develop their language skills.

Vančová (2023) compared both types of AI. This author manifest that the main difference between educational and non-educational AI lies in its purpose and scope of application. AI related to education is designed specifically to improve teaching and learning through personalized feedback, fostering engagement, and supporting specific learning goals within a structured pedagogical framework. In contrast, non-pedagogical AI has general or entertainment-focused functions outside the academic setting and is mainly focused on

aiding with multiple tasks. While the first meets educational objectives and ethical standards, the second can potentially offer learning opportunities if it is creatively adapted for educational purposes.

3.3 Artificial Intelligence in Language Learning

3.3.1 What is Artificial Intelligence (AI)?

Artificial intelligence according to Tapalova & Zhiyenbayeva (2022), is a broad field that aims to carry out automated decision-making processes without direct human intervention. Its applications extend from basic conditional logic to more complex systems, such as neural networks. Essentially, AI is based on algorithms, which are structured sets of rules that guide computers in solving problems and achieving specific goals.

Moreover, it has spread rapidly in the daily life, impacting various fields, including education. Its implementation has significantly transformed the way people learn, becoming an essential element for the advancement of educational technology (Tahiru, 2021). Different types of AI applications of high relevance to education have been identified:

Natural language processing (NLP)

It consists of a field of artificial intelligence that enables machines to process and understand human language by combining computer science and linguistics with the aim of generating more natural interaction. It operates in two dimensions. The first involves the interpretation of the natural language meaning, and the second is the generation of natural language, leading to the production of coherent texts (Khurana et al., 2023).

Chatbots

Chatbots are software systems specially designed with the aim of interacting with humans in a naturally way (Wollny et al., 2021). These conversational systems provide not only provide immediate help in answering doubts but can also serve as a guide and opportunity to practice and improve language skills, while facilitating access to a virtual tutor within a personalized environment.

Machine learning

Machine learning consists of systems that are capable of analyzing and learning data to enhance students' performance (Bell, 2022). Through this branch of AI, when analyzing data, it is possible to identify patterns that facilitate the detection of learning gaps as well as learning outcomes. Simultaneously, it can suggest personalized content based on the analysis, thereby becoming an even more effective tool. As Hilbert et al. (2021) state, by learning and analyzing information from student interactions and performance, these systems adapt themselves to individual needs, improving the process and effectiveness of the learning experience.

Adaptive learning systems

Adaptive learning is an educational innovation that uses artificial intelligence and data analytics to create personalized learning environments. Instead of following a standardized path, these systems interpret each student's performance patterns to offer assignments that match their current abilities and cognitive pace. Moreover, its integration facilitates continuous monitoring and adjustment, dynamically adapting the difficulty of content, exercises, and feedback to match the learner's progress (Gligorea et al., 2023). This personalized approach not only promotes autonomy and engagement but also optimizes learning efficiency by allowing students to address tasks that truly align with their developmental level and learning style. Thus, adaptive learning improves educational outcomes by fostering meaningful student-centered learning.

3.3.2 Role of AI in Language Education

AI has developed into a potent tool for many areas including the field of education. This tool has been especially helpful for language learning as it supports and facilitates the learning process through technology. Nowadays, artificial intelligence is increasingly integrated in most online applications offering a variety of options that include intelligent tutoring, automated assessment, chatbots, and adaptable platforms, also providing personalized content and immediate feedback and error correction.

Building upon that, this technology enables the creation of personalized educational environments that consider students' needs and preferences. Through the implementation of innovative and interactive features, this software becomes a much more practical and engaging way to learn, fostering skill development and accelerating the learning process. Furthermore, by providing access to a variety of resources and immediate feedback, it encourages student autonomy (Rusmiyanto et al., 2023).

Additionally, Qassrawi & Karasneh (2025) manifest that thanks to the processing of large amounts of information, these systems provide significant potential for improving students' cognitive development, primarily in areas such as analytical thinking and information processing. By taking advantage of its potential and focusing on improving English skills, it is possible to generate significant changes, benefiting from the availability, accessibility, flexibility, and facility provided by these technologies.

3.3.3 Advantages and Limitations of AI in Language Learning

The incorporation of AI into language learning provides numerous opportunities for improving teaching and practice. Nevertheless, despite its potential, this powerful tool also presents some limitations that should be carefully considered.

As mentioned by Rebolledo & González (2023), its use provides several benefits although it also presents some limitations. With regard to the advantages, it is mentioned the immediacy and speed of generating customized tasks tailored to students' needs, in addition to providing instant feedback. Furthermore, thanks to the algorithms the learning experience will be individualized and therefore more engaging and effective. Additionally, the accessibility and the cost will be beneficial, bearing in mind that this learning tools are

available to everyone, regardless of time or place, and most of them offer free or affordable options.

On the other hand, it is possible to find some limitations when using AI. For instance, the lack of human interaction may be a problem if students are accustomed to or prefer an environment where they can have direct contact with others. Similarly, AI tools may have problems recognizing and correcting linguistics errors as teachers do, this may happen because cultural or social factors are not always fully considered by the software. Additionally, Sun et al. (2023) cites another drawback, the system may struggle to interpret non-native accents as a result, there will be inconsistencies when analyzing what the student says, and therefore the feedback will not be adequate.

3.4 Oral Fluency in English as a Foreign Language (EFL)

3.4.1 Definition of Oral Fluency

An important term for teachers and students regarding the language learning process is “fluency.” Which represents the major goal when learning a foreign language, as the student will be able to communicate effectively and without hesitation or worrying about mistakes, just as in his natal tongue. That is to say that fluency signifies the ability to carry on a natural conversation, without many pauses, using a minimum of filler words and employing appropriate language (Lopez et al., 2021).

Furthermore, it is important not to confuse this term with accuracy, both are related but they are not the same. While fluency means communicating effortlessly, accuracy is to convey information without errors. According to Housen & Kuiken (2009), fluency emphasizes the capacity to speak smoothly and at a natural pace, similar to native speakers, whereas accuracy can be described as the ability to express ideas in a linguistically correct way.

Likewise, Thornbury (2000) establishes an easy-to-understand distinction between both, expressed in the formula accuracy = form, fluency = meaning. In other words, accuracy refers to the extent to which a learner's speech fits a recognized standard, often compared to the idealized output of a native speaker, with emphasis on grammar, vocabulary, and pronunciation. Fluency, on the other hand, reflects smooth and natural communication, where the main focus is on conveying the message rather than its form (p.139).

3.4.2 Components of Oral Fluency

When discussing oral fluency, it is important to consider several key components that, collectively, define language proficiency. Among these are grammatical accuracy, which reflects the correct use of linguistic structures; pronunciation and intonation, catching the natural rhythm and melody of speech; vocabulary, indicating lexical variety and appropriateness; and coherence, ensuring that ideas are organized logically and connected fluently.

Grammatical accuracy

Each language has its own rules, all of which are of utmost importance in order to ensure accurate understanding. There exists a close relationship between grammar and speaking fluency. They cannot be separated since grammar is part of accuracy, and both accuracy and fluency are essential aspects of speaking. For instance, learners with stronger grammatical competence tend to speak more fluently, as grammar enables them to use language structures accurately and quickly, helping to avoid hesitations, and allowing students to express themselves in a clearer way (Kusumawardani & Mardiyani, 2018). In this sense, accuracy forms the foundation of fluency, while fluency reflects a higher level of linguistic and communicative competence.

According to Normawati (2023) “a person with excellent grammar will become a better speaker.” This stems from the fact that in oral interaction, grammar provides the structural framework of language. By using accurate grammar, speakers facilitate their audience's grasp of their ideas, comprehension of the conversation's purpose, and prevent misunderstandings. This highlights the significance of grammar as an indispensable element for achieving clarity and precision in speech. Besides, Sacal & Potane (2023) state that it is a factor liable to hinder speech if it is not mastered or knowledgeable. This is because “language relies on grammar to function.” For this reason, it is not possible to master English without considering grammar. It is always necessary a set of rules that control how words, sentences, and phrases should be formulated.

Vocabulary

Vocabulary consists basically of knowing the meaning of words. However, as mentioned by Bilge & Kalenderoğlu (2022), it is a process that evolves throughout life, therefore it is difficult to master completely. Besides, Annisa and Wariyati (2023) give a similar definition for vocabulary. They defined it as a set of words in a language that people use to construct sentences, playing a vital role in language acquisition, due to a properly vocabulary is key to enhancing communicative competence and gaining fluency in the target language.

They also highlight the importance of lexicon. For learners it is essential because it allows them to understand the meaning of what is being said. Without an adequate vocabulary, it is impossible to comprehend messages, construct new sentences, or achieve fluency in communication. As Rashid et al. (2022) manifest “students would not comprehend others' ideas or communicate their own ideas if they did not have a broad vocabulary.” That is to say, learners will struggle when trying to convey meaning, which frequently results in long pauses. This limitation can cause them to feel blocked, become nervous when they cannot find the right words, resulting in a loss of confidence.

Pronunciation

Pronunciation can be defined as the capability to neatly articulate the different sounds of a target language, in conjunction with the correct use of stress and intonation patterns, which are essential for accurately conveying meaning in communication (Djurayeva, 2021). It is not only about producing isolated sounds, but also about guaranteeing that aspects such as

rhythm, intonation, and stress reflect the intended message, contributing to intelligibility, since a poor pronunciation can make it difficult for speakers to understand each other correctly, even with adequate grammar and vocabulary.

There is a lot of emphasis on pronunciation in language learning, as a single different sound can alter the whole meaning of a word. Therefore, students should be aware of phonological rules, the various sounds that exist in the target language, and their pronunciations, as well as the stress, intonation, and pitch so that they can speak more fluently and correctly (Annisa & Wariyati, 2023).

Intonation

Intonation refers to the melodic pattern of speech that gives words their full meaning in communication. It goes beyond the literal message, since variations in pitch, rhythm, and volume help highlight important ideas and express emotions or attitudes. Through intonation, listeners can distinguish whether a speaker is asking a question, making a statement, or emphasizing something. It also contributes to fluency, as it adds nuances and helps maintain the natural flow of interaction. For this reason, it plays an important role in effective and meaningful communication (Nolan, 2020).

Coherence

Coherence is the way ideas are logically connected to enable the listener to follow the message as a whole, rather than perceiving it as isolated phrases. This connection is achieved through cohesive elements, such as the appropriate use of vocabulary, grammar, and discourse markers, which establish relationships between different parts of the discourse. Consequently, coherence ensures the natural flow of oral communication, allowing speakers to interpret meaning without confusion (Shakirova & Kharisov, 2023).

3.4.3 Common Challenges in Developing Oral Fluency

Becoming fluent in a second language involves a complex process that goes beyond simply learning vocabulary and grammar rules. Frequently, students encounter multiple challenges that hamper their oral fluency, including a lack of practice, fear of making mistakes (anxiety), or a lack of motivation. These obstacles have the potential to cause hesitation, disjointed speech, or excessive use of the native language, thereby affecting the pace of the conversation. Therefore, it is essential to understand the most common oral proficiency difficulties, as this enables educators to identify the underlying factors and develop strategies that promote more effective and confident communication.

Lack of Practice

One of the most common challenges in developing oral fluency is lack of practice, which is often related to the context in which the language is learned, especially in Latin America and other less developed countries. However, this limitation is not only determined by the

educational environment but can also derive from a combination of personal and external factors that limit students' opportunities to use the language consistently.

A primary reason for the lack of practice in oral fluency in English is limited exposure to real communication. As pointed out by several studies, interaction with native speakers allows students to improve their pronunciation, intonation, and natural use of expressions, elements that are more difficult to acquire in environments where English is not commonly spoken (Kim, 2023) Within the Latin American context, most students practice English with non-native peers, while beneficial, does not offer the same opportunities to assimilate the rhythm, accent, and spontaneous patterns of the language. This lack of immersion hinders the development of oral fluency, as students are rarely exposed to the language in its most natural form.

Furthermore, schools tend to prioritize grammar and writing skills over oral communication, and extracurricular opportunities to practice English are limited (Kim, 2023). As a result, students have few opportunities to engage in conversations that replicate real-life situations, slowing their progress in fluency. This limited exposure, combined with the absence of authentic communicative contexts, often leads to insecurity and fear of making mistakes, factors that greatly affect students' willingness to speak.

Fear of Making Mistakes (Anxiety)

Speaking in front of others is often a very stressful experience for most people, especially if it involves speaking in another language. The fear of making mistakes and being judged negatively creates considerable emotional pressure, commonly identified as anxiety. This condition often hinders students' ability to think clearly and articulate their ideas, leading to communication problems and a reduced interest in participating in oral activities. As stated by Alvarez et al. (2024) high levels of anxiety affect students' perception of their own abilities, weakening their self-confidence when communicating orally. This psychological phenomenon limits their active participation in oral activities. As a result, emotional pressure hinders performance and improvement in linguistic fluency.

Moreover, another factor that reinforces students' anxiety is the challenge of speaking spontaneously. According to Puspasari et al. (2025), when students are required to answer questions without preparation, they often lose concentration or even forget what they wanted to say. This results in vague answers and poorly structured sentences. During moments of tension, students may experience mental blocks, their minds go blank, and even though they have the knowledge and are able to provide accurate responses, fear takes over and causes them to demonstrate the opposite.

Lack of Motivation

An important aspect to consider when learning is motivation (Puspasari et al. 2025). Without motivation it would be difficult to acquire something new because they may lack the predisposition to engage meaningfully in the process. When this occurs, the learning

process is often viewed simply as a requirement or obligation that must be fulfilled, rather than a meaningful experience and an opportunity to develop new skills. When this occurs, the learning process is often viewed simply as a requirement or obligation that must be fulfilled, rather than a meaningful experience and an opportunity to develop new skills. They may even be aware of its value; however, they feel that the way the process is being carried out does not engage or encourage them, making them consider it unimportant.

Sam (2024) manifest that the lack of motivation is one of the major factors affecting the process of English learning. Since it has an influence on student's attention and enthusiasm for studying. If students receive motivation through innovative, engaging teaching-learning strategies that encourage them to learn, addressing their needs, realities, and preferences. Bearing in mind that when students are genuinely interested in a subject or activity, they find it easier to acquire knowledge, and consequently, the learning process becomes more effective. To this regard, mobile assisted language learning (MALL) and the use of artificial intelligence seem to represent potentially promising alternatives for fostering oral competence, as they provide learners with interactive, fear-free environments in which they can practice speaking freely.

3.5 Language skills

3.5.1 Receptive

Receptive skills refer to those in which the student does not produce language but simply receives and processes information, either through reading or listening. This focuses mainly on understanding and interpreting content. That is why these skills are also considered "passive," since interaction occurs in terms of reception rather than linguistic production (Al-Jawi, 2010; Davies, 1976)

3.5.1.1 Listening

Listening is a crucial skill that enables individuals to receive and interpret messages effectively. It involves not only hearing the words of the speaker, but also connecting with them intellectually and emotionally. In addition to being a fundamental part of linguistic competence, listening requires an authentic interest in understanding others, along with an open and respectful attitude, and a commitment to considering different perspectives (Tyagi, 2013).

As Yurko & Styfanyshyn (2020) state, listening plays a crucial role in effective communication, as it encompasses a variety of complex emotional, mental, and behavioral activities. Emotionally, it involves having the motivation and willingness to interact with the speaker. On a cognitive level, it requires actively focusing, understanding, and making sense of both the message itself and the relationship it conveys. On a behavioral level, listening is demonstrated through appropriate verbal and nonverbal responses that show understanding and engagement.

3.5.1.2 Reading

Reading ability is primarily understood as a complex process of comprehension that relies significantly on the efficient and accurate processing of text at multiple levels. As Perfetti (1985) states, “reading involves constructing a mental representation of meaning from printed text” (p. 3). This process involves not only decoding words, but also fluidly integrating word-level recognition with sentence and discourse level comprehension. Thus, expert readers recognize words quickly and accurately, allowing them to focus their cognitive abilities primarily on constructing a coherent mental model of the text's meaning. This efficient processing at lower levels allows readers to engage in higher-level comprehension tasks, such as making inferences and understanding the author's overall message.

3.5.2 Productive

Productive skills are those in which the student produces language, generating a message either through speaking or writing. These skills focus on effective communication, considering the organization of thoughts, choice of vocabulary, and grammatical construction. Moreover, they are considered “active” as they foster direct interaction through the expression of ideas (Davies, 1976; Golkova & Hubackova, 2014).

Speaking is considered one of the most difficult productive skills for students to master, since it requires fluency, accuracy, and spontaneous interaction. These challenges underscore the need for innovative strategies like artificial intelligence-based conversational tools, which can support continuous oral practice. Integrating these platforms represents a viable alternative to traditional classroom interaction, as it enables students to practice spontaneously, putting aside what prevents them from moving forward (Khoudri, 2024).

3.5.2.1 Writing

Writing involves adapting thoughts and ideas into coherent and understandable text. It requires the ability to effectively encode meaning in written form. This means that writers must not only master grammatical and spelling conventions, but also organize their ideas logically, selecting appropriate vocabulary and constructing sentences that convey their message clearly to the intended reader. Therefore, strong writing skills involve mastery of both thinking and written language, enabling effective and structured communication (Sa’adah, 2020).

3.5.2.2 Speaking

Speaking is a productive or active skill through which people can convey their ideas, thoughts, and feelings effectively and directly. Its importance stems from its role in building communication skills, where fluency, accuracy, and mastery of spoken language are key to success in real-life interactions. Also, within the educational sphere, speaking proficiency is linked to factors such as confidence building, vocabulary comprehension, grammar knowledge, and the ability to manage different types of communicative situations, including participation in debates, presentations, and interactive conversation (Akhter, 2021).

Given that developing speaking skills requires real use of language to communicate, modern technologies that simulate authentic conversations, such as chatbots or virtual assistants, can be a worthwhile tool for improving oral performance in EFL contexts, considering the student's environment.

3.6 Communicative approach

One of the pillars of modern language teaching is the Communicative Approach (CA), which emphasizes that the principal purpose of language learning is the development of communicative competence. Jin (2008) manifests that this approach places greater emphasis on the meaningful use of language than on grammatical rules, centering on tasks that require real communication. It means that, instead of learning structures, students develop language through functional activities, paying less attention to error correction and more to fluency.

Similarly, Canale & Swain (1980) argue that this competence goes far beyond grammatical knowledge and extends to sociolinguistic awareness, discourse coherence, and strategic competence. This paradigm shift stresses the importance of using language for meaningful interaction in authentic contexts. Therefore, the communicative approach provides the theoretical basis for promoting meaningful interaction in language learning. Given this, it can be correlated with the use of technology and artificial intelligence, both of which provide further opportunities for communicative practice beyond the classroom (Niu, 2025).

CHAPTER III. METHODOLOGY

4. Methodology

4.1 Research Approach

This research adopted a mixed-methods approach, combining quantitative and qualitative strategies, as highlighted in the literature, mixed methods allow researchers to integrate qualitative and quantitative techniques according to the purpose, in order to provide a deeper analysis of the study (Taherdoost, 2022), in this case to provide a more holistic understanding of the effectiveness of Character AI in developing oral fluency. By integrating these two perspectives, the study was not only able to measure the impact of the intervention based on objective data, but also provided insights into the perceptions and experiences related to its use. Combining measurable outcomes with contextual knowledge ensured a more meaningful and reliable interpretation of the results.

In terms of quantitative elements, this study employed pre and post-tests to measure students' oral fluency before and after the introduction of Character AI, allowing for a clear comparison of learning outcomes. On the other hand, the qualitative component was addressed through a literature review that supports the theoretical basis of the study, as well as the design of lesson plans that incorporate Character AI into oral practice and a semi-structured interview with the teacher. These techniques allowed for an accurate analysis of perceptions, experiences, and pedagogical processes.

4.2 Research Modality

The research modality employed in this study is quasi-experimental, given that the mobile application Character AI was implemented as a tool to improve oral fluency while working with an existing group of university students, rather than randomly assigning participants to experimental and control groups. This type of design is suitable for educational contexts, where it is not always possible to manipulate all variables, but it still allows the impact of the proposed strategy to be measured through pre and post-tests (Hassan, 2024).

This approach aimed to analyze and evaluate the effectiveness of Character AI as a tool for improving oral skill among fourth-semester students from the Agronomy program at the Faculty of Natural Resources of the Escuela Superior Politécnica de Chimborazo (ESPOCH).

4.3 Level or Type of Research

The present study is considered field research, as data was collected directly from the population under study, in this case university students learning English as a foreign language, through the application of preliminary and final tests, as well as a semi-structured interview with the teacher in charge, in order to obtain first-hand information. This study was conducted in a natural academic environment, where students interacted normally. As Burgess (2003) states, field research involves the study of real-life situations, in which

participants are observed and involved in their usual activities, ensuring that the data collected reflects real behaviors and experiences. Being of utmost importance when obtaining a realistic view of the development of students' oral fluency, since interventions, such as lesson plans and tests, are applied directly in the classroom context.

On the other hand, this research is bibliographic-documentary in nature, as the theoretical framework and context of the study was developed based on the analysis of scientific articles and previous research on the use of artificial intelligence (AI) tools and the development of oral fluency in English. Casampere & Vercher, 2020 states that the literature review process encompasses all the research and supports the development of objectives, the construction of theoretical frameworks, and the interpretation of results. In this sense, it is indispensable for this study, as it enables the comparison of results from different research studies, providing a solid foundation for both the development of Character AI activities and the interpretation of results.

4.4 Study Population

The study population consists of the fourth-semester students from the Agronomy program at the Faculty of Natural Resources of the Escuela Superior Politécnica de Chimborazo (ESPOCH) during the 2025-2026 academic period. This group was involved in activities using the mobile application “Character AI,” as a tool to improve oral fluency. Additionally, the English teacher of the course participated through a semi-structured interview, providing valuable qualitative information regarding the integration of this technological tool into the learning process. This dual perspective, obtained from both student and teacher viewpoints, contributed to a thorough overview of Character AI's effectiveness in enhancing oral fluency within an academic context.

4.5 Sample Size

No sample was taken for this research, as the study was conducted with the entire group of students that comprises the population. Due to the small and manageable number of participants, it is more appropriate to work with the entire group than to select a subgroup.

4.6 Techniques and Instruments for Collecting Data

For data collection, the following technique and instrument were used:

Techniques and instruments for specific objective 1:

- Conduct a bibliographical review about the use of Character AI to improve oral fluency.

A literature review was conducted to gather key information on the use of the mobile application to improve oral comprehension. This contributed significantly to the development of the research and the fulfillment of the first objective by providing a theoretical and empirical basis for the intervention design. To this end, databases such as Google Scholar, Web of Science and Scopus were used as a reliable theoretical basis for the

collection of information. The study primarily considered publications related to the improvement of the oral comprehension, in addition to the keywords mentioned in the title and content fields, such as “character ai,” “oral comprehension,” “EFL,” and “improvement.” Additionally, for efficient compilation and to ensure that the study is based on up-to-date, high-impact academic findings, articles published between 2019 and 2025 were considered.

Techniques and instruments for specific objective 2:

- To design and apply activities with the use of Character IA to improve oral fluency.

Six lesson plans were developed and implemented over three weeks. Considering that there were two sessions per week, each lasting one hour, giving a total of six sessions. Each class employed Character AI as a pedagogical tool to enhance oral proficiency through simulated conversations and interactive tasks. These activities progressed from controlled conversational situations to more spontaneous ones, empowering students to increase their confidence and improve their communicative fluency.

As stated by Farhang et al. (2023), a well-designed lesson plan facilitates the organization and presentation of content, ensuring that activities align with established objectives, while reducing the risk of overlooking important content. By providing a structured framework, teachers can easily integrate AI tools into the classroom, managing class time efficiently and anticipating potential challenges, thereby improving pedagogical control, student engagement, and maximizing the educational benefits of AI integration.

Techniques and instruments for specific objective 3:

- To evaluate oral fluency through the use of Character AI.

A speaking test adapted from Cambridge Preliminary English Test (PET) was conducted with the aim of determining the students' oral fluency. This test consists of four parts that “shows that you have mastered the basics of English and now have practical language skills for everyday use” (Cambridge English, s. f.). However, for this research only the oral component will be employed to analyze the students' speaking skills. Hence, it was applied before and after the implementation of the mobile application Character AI, to assess the initial level of oral comprehension and determine the areas that require further emphasis. Thus, the implementation of this app can be directed towards the strengthening of their weaknesses. Additionally, in the second week an oral fluency rubric was used to assess student progress. Besides, by doing the post-test, it was possible to analyze the progress achieved after using the AI tool, revealing the areas of improvement and the extent to which the software contributed to the development of students' oral fluency.

In addition, a semi-structured interview was designed with the purpose of gathering the perception of the English teacher regarding the implementation of Character AI and its impact on the oral fluency of the students. The semi-structured interview is a technique that combines guiding questions with open discussion to explore participants' opinions in depth

(Ruslin et al., 2022). That is why this study employed it, as it provides specific and detailed information about experiences and perceptions. Since the teacher has already worked with them and has a closer awareness of her students' strengths and weaknesses, she was able to provide further critical feedback on the progress and effectiveness of using AI to enhance speaking, complementing the quantitative findings, and thus contributing to the analysis of the results.

4.7 Data collection analysis and processing

This section describes the procedures followed for the collection, analysis, and processing of data within a mixed study design. In order to ensure consistency, validity, and alignment with the study objectives, both quantitative and qualitative data were collected and analyzed systematically.

4.7.1 Quantitative Data Processing

In terms of quantitative data, this was collected by applying a pre- and post-test adapted from the Cambridge Preliminary English Test (PET), focusing on the speaking section. This test comprises four parts. The first part consists of general questions about information related to the student, in the second part they have to describe what they see in a photograph, in the third part students have to carry out a conversation about a specific situation, and finally, in the fourth part participants have to answer questions linked to part 3. Both the pre-test and post-test were evaluated in pairs; however, the evaluation was individual following the rubric to assess speaking performance, which evaluates grammar and vocabulary, discourse management, pronunciation, and interactive communication, considering different bands from 0 to 5.

At the same time, student performance and progress were monitored using an oral fluency rubric. This rubric allows for the evaluation of aspects such as fluency, coherence and interaction with AI, vocabulary range and appropriateness, grammar and accuracy, pronunciation and intonation, as well as engagement and motivation. Each criterion was scored within four ranges: Excellent (4), Good (3), Fair (2), and Needs Improvement (1). The total score obtained from all criteria was then interpreted as follows:

- 18–24 points: Excellent oral fluency development
- 12–17 points: Good progress, but needs more practice
- 6–11 points: Limited fluency, requires more interaction and feedback
- 0–5 points: Very low fluency; needs focused support and guidance

These quantitative data were processed using Microsoft Excel. First, descriptive statistics were calculated, including minimum, maximum, mean, median, and standard deviation, in order to compare students' performance before and after the intervention. Given the sample size ($n = 16$), the Shapiro–Wilk test was conducted to determine whether the data followed a normal distribution. Based on the normality results, a non-parametric test was selected.

Therefore, the Wilcoxon signed-rank test was applied to compare pre-test and post-test scores. The level of significance was established at 0.05 (95% confidence level). Additionally, box plots and individual progress graphs were used to visually represent score distribution and variations in students' performance.

4.7.2 Qualitative Data Processing

Qualitative data were obtained through a literature review, the creation and implementation of a lesson plan, and a semi-structured interview administered to the English teacher. With regard to the bibliographical review, preliminary literature searches revealed a large number of publications. However, after applying thematic relevance criteria, focusing specifically on the development of oral fluency with the support of AI, 20 articles were selected to be included in the analytical matrix for detailed review. From this subset, 10 studies were identified as most directly aligned with the research focus.

Table 1

Inclusion and Exclusion Criteria for Literature Selection

Criterion	Inclusion	Exclusion
Topic	Studies exploring artificial intelligence in contexts of EFL learning and teaching, specifically in relation to oral fluency	Studies focused on unrelated topics, or focused totally on grammar, writing, or skills distinct to oral production
Key Words	Articles containing terms such as "Character AI," "artificial intelligence," "oral fluency," "speaking development," or "EFL improvement"	Articles not containing relevant AI or oral skill descriptors
Publication Date	Studies published between 2019 and 2025	Studies published before 2019
Source Type	Peer-reviewed journal articles indexed in academic databases (Google Scholar, Web of Science, Scopus)	Non-peer-reviewed documents, opinion papers, blogs, conference summaries without empirical basis
Thematic Relevance	Research directly aligned with AI-supported oral skill development	Studies using AI without direct connection to oral skill development

Note. N = 16. Criteria established by the researcher for selecting studies included in the analytical matrix.

The selection process consisted of an initial broad search of the database, followed by thematic filtering and relevance analysis. Although additional studies were identified, those that did not directly address the development of oral fluency with the support of AI were excluded. Finally, the sample comprised 10 studies that provided the greatest conceptual and empirical alignment with the objectives of the present research.

In addition, for the second instrument, a pedagogical proposal was designed following a communicative approach within the ESL framework. The design of each lesson incorporated clear learning objectives focused on developing students' oral fluency through the use of Character AI, including engaging activities and content-related lessons that were relevant to the students' major, as well as phrases, prompts, and instructions to facilitate and guide the use of the application. In addition, time was set aside for reflection and feedback at the end of each session.

The topics covered included: Familiarization with Character AI, Talking about plants, Plants Reproduction, Real-life Agricultural Communication, Real-life Agronomy communication, and Free Professional & Personal Communication. These topics were selected according to their context, level, prior knowledge, and were related to themes that were being observed in their classes.

Character.AI was integrated as a conversation partner to simulate real-life communicative situations. To this end, activities included role-playing, guided dialogues, prompts for spontaneous speaking, and situation-based conversations. In other words, the activities focused entirely on interacting with AI through the use of English.

To this end, the lesson plans were structured as follows:

- Warm-up and vocabulary activation.
- Pre-teaching: Explanation of the task and modeling.
- While-teaching: AI-mediated oral interaction.
- Post-teaching: Reflection and feedback phase.
- Closing: Summary, reminders, and information about the next session.

Additionally, in order to conduct the semi-structured interview to gather teachers' perceptions on the use of Character AI to improve speaking skills, the instrument was developed based on a comprehensive literature review and derived from the study's specific objectives. A total of nine questions were formulated, including an icebreaker question and a final reflection question. The questionnaire included initial and post-implementation perceptions regarding fluency, motivation, interaction, and attitude towards the use of AI, as well as perceived improvements and limitations and the effectiveness of the

application. The findings were examined using a thematic analysis. For this purpose, an a priori matrix was developed based on predefined analytical categories in line with the research objectives, including perceived improvement in fluency, confidence levels, engagement and perceived challenges. From these categories, subcategories and relevant excerpts were selected and an interpretation of the collected data was presented. In this way, the teacher's responses were carefully examined and coded in order to identify patterns and significant conclusions. This allowed for an integrated analysis of the responses.

CHAPTER IV. RESULTS AND DISCUSSION

5. Results

This chapter presents the results obtained after conducting the research project. These results are organized according to the three specific objectives established in the study, integrating qualitative and quantitative data in order to provide a comprehensive overview of the impact of Character.AI on the development of oral fluency.

5.1 Bibliographical Review on the Use of Character AI to Improve Oral Fluency

The first specific objective of this research is to conduct a bibliographical review about the use of Character AI to improve oral fluency in English as a Foreign Language (EFL). After applying specified quality criteria, peer review, and thorough indexing in recognized databases such as Scopus and Web of Science, a total of 10 studies were selected for further analysis. These studies, published between 2021 and 2025, addressed the integration of artificial intelligence (AI) tools in the context of English as a foreign language (EFL).

The findings were grouped into two main thematic categories:

AI chatbots and oral language skill development

Most of the selected studies indicate that AI-based communication tools have a positive impact on students' oral speech. Findings reveal that AI chatbots help boost speech fluency by increasing interaction frequency, reducing hesitations, and encouraging spontaneous output (Qiao and Zhao, 2023; Zhou et al., 2025). Furthermore, there has been an increase in students' motivation, engagement, and willingness to communicate (Huang and Zou, 2024; Hazaymeh et al., 2024).

AI-based chatbots are also capable of providing personalized language learning experiences. This suggests that the use of this tool can be an effective supplementary resource for the development of communicative competence in students learning English as a foreign language.

Character-based AI in the context of teaching English as a foreign language

Studies of character-based AI underscore their potential to foster more engaging and personalized interactions in educational settings (Pataranutaporn et al., 2021). These tools enable learners to interact in simulated environments that promote motivation and emotional connection.

Specifically, Filatov (2024) explored the use of Character.ai in educational settings and identified methodological features such as the creation of a virtual assistant, role-based interaction, and conversational adaptability. These findings suggest that Character.ai enhances communicative practice through simulated dialogue and interactive scenarios.

Nevertheless, due to the limited number of indexed empirical studies focused exclusively on the use of the Character AI mobile app, this area remains to be further

explored, particularly in higher education English learning contexts. This research gap justifies the need for the present study.

Additionally, despite the positive results, several studies also point out notable limitations associated with the use of AI tools in language learning. Among the most common challenges are technological constraints such as internet connectivity issues, overreliance on AI systems, problems with speech recognition accuracy, misunderstandings in context, and cultural nuances that AI systems cannot properly interpret. Together, these factors suggest that AI should be used as a complementary educational resource rather than a substitute for human instruction.

5.2 Design and implementation of activities using Character AI

With the aim of fulfilling the second objective: to design and apply activities with the use of Character IA to improve oral fluency, six sessions were held throughout three weeks, each consisting of two one-hour sessions. These sessions were structured through personalized lesson plans designed to progressively enhance the students' oral fluency by implementing the Character AI mobile application as the primary teaching tool. Table 2 provides a brief summary of the most important aspects of each lesson plan.

Table 2

Summary of Lesson Plan Implementation

Lesson	Topic	Learning Goal	AI Activity Type
1	Familiarization with Character AI	Engage in short guided conversations using simple prompts to practice basic oral fluency and reduce anxiety.	Guided introductory interaction with predefined prompts.
2	Talking about Plants	Develop oral fluency using basic vocabulary related to plant reproduction through guided practice.	Guided topic-based conversation using structured prompts.
3	Plant Reproduction	Produce longer semi-guided explanations integrating technical vocabulary and discourse structures.	Semi-guided extended interaction with explanatory prompts.
4	Real-life Agricultural Communication	Improve fluency through simulated professional agronomy scenarios.	Role-based semi-guided professional simulations.

5	Professional Agronomy Communication	Engage in professional role-play conversations using field-specific language.	Role-based professional interaction with flexible prompts.
6	Free Professional & Personal Communication	Demonstrate improved oral fluency through free and spontaneous conversations.	Free conversation with autonomous topic selection.

Note. Table created by the researcher based on implemented lesson plans.

To this end, the intervention followed a gradual approach, shifting from controlled conversational practice to more spontaneous and autonomous oral expression tasks. Over the course of the first sessions, students were introduced to the platform and participated in guided interactions using predefined topics and prompts. These initial activities focused on helping students become familiar with the app, create their character that matched their interests to increase their motivation. The sessions also included basic question-and-answer activities, reinforcement of contextualized vocabulary, and short structured responses. Considering that the main objective at this stage was to reduce anxiety when speaking and increase students' confidence when interacting in English.

As the sessions progressed, the tasks became increasingly contextualized and semi-guided. At this stage, students participated in more extensive thematic conversations related to their academic field (agronomy), including plant reproduction processes and real-life agricultural communication situations, which are highly relevant to their professional lives and context. To this end, with the help of this application, it was possible to simulate professional and academic interactions, allowing students to practice describing processes, explaining problems, requesting information, and expressing opinions in long dialogues.

In the last sessions, participants engaged in free and role-based conversational tasks, selecting their own topic, and directing the interaction with the AI-generated character. These activities required greater spontaneity, extended responses, and more autonomous linguistic production. During this stage, the teacher's role focused entirely on facilitating and monitoring students' participation throughout the activity, providing support, tracking engagement levels, and ensuring the exclusive use of English during interactions.

Overall, the structured but gradually flexible implementation of Character AI-based activities promoted meaningful oral practice in a low-anxiety environment. Students were able to speak without fear, enabling them to engage in more meaningful oral practice. In addition, by focusing on their field of interest, their motivation levels increased, they were able to demonstrate their knowledge in their area while practicing and learning English. Likewise, the gradual transition from guided instructions to free conversation allowed students to strengthen their fluency, learn new terms, practice pronunciation, and increase their willingness to communicate, and demonstrate greater confidence in spoken English.

5.3 Evaluation of Oral Fluency through the use of Character AI

To meet the third objective: to evaluate oral fluency through the use of Character AI, three research instruments were used to collect relevant data. The results obtained include both quantitative and qualitative information, allowing for a thorough evaluation of the intervention. For greater clarity and methodological rigor, the results are presented in three parts. First, the quantitative results from the pre- and post-tests and the oral fluency rubric are analyzed. Second, the qualitative results obtained from the semi-structured interview are examined. Finally, data triangulation is carried out in order to compare the results of both components and provide a deeper understanding of the impact of the intervention.

5.3.1 Statistical Analysis of Oral Fluency Performance

One of the first steps in evaluating oral fluency using Character AI was through descriptive statistics. Table 3 shows a summary of the values obtained. At first glance, there is a general improvement in the post-test in terms of minimums, maximums, averages, and medians. However, there is also an increase in the standard deviation, which implies that the improvement in students was scattered.

Table 3

Descriptive statistics

	Min	Max	Mean	Median	Standard Deviation
Pre test	1.00	12.00	5.13	3.50	3.61
Post test	4.00	18.00	10.13	10.00	4.22

Note. N = 16. The results obtained correspond to an adaptation of the standardized test of Cambridge Preliminary English Test (PET)

Subsequently, a Shapiro-Wilk normality test was applied, due to the size of the samples, to verify the type of statistical test to be applied in the quasi-experiment. The results indicate that the post-test follows a normal distribution ($p\text{-value} = 0.2825 > 0.05$), while the pre-test does not follow a normal distribution ($p\text{-value} = 0.007026 < 0.05$). Due to these findings, a nonparametric statistical test was chosen, in this case the Wilcoxon signed-rank test for paired data. The results are shown in Table 4.

Table 4

Results for the Wilcoxon signed rank test

	V statistic	p-value
Post test and Pre test	136	0.0002308

Note. N=16. Results were analyzed at a confidence level of 0.05

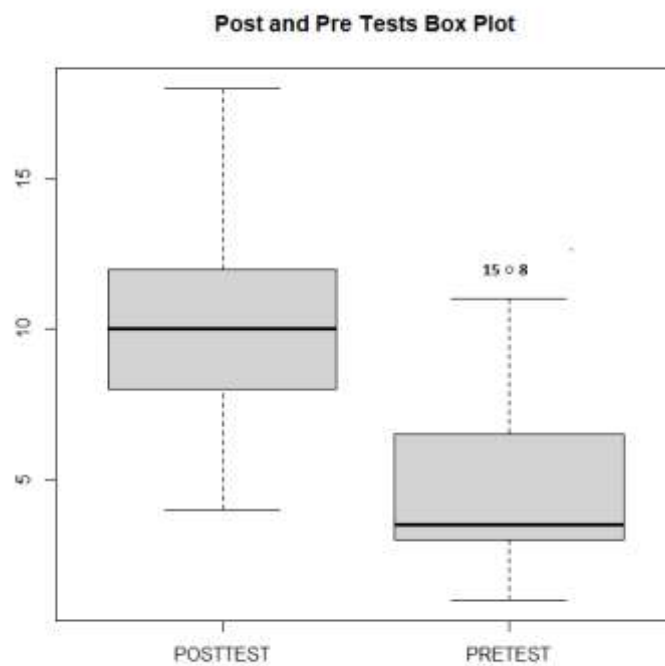
The results of the Wilcoxon test provide statistically significant evidence to affirm that the improvement in oral fluency obtained by the study population can be attributed to the

implementation of Character AI as a tool to support the development of oral skills, rather than coincidental.

To visualize the results obtained graphically, a box plot is used to show the overall improvement. Figure 1 shows a substantial improvement between the pre-test and post-test. For instance, the median increased by 6.50 points between the pre-test (3.50) and the post-test (10). However, it is worth noting the presence of two outliers, corresponding to students with ID 8 and ID 15, who scored 12 on the pre-test, indicating that they already had a good foundation in oral fluency prior to the implementation of Character AI.

Figure 1

Box plot for pos test and pre test

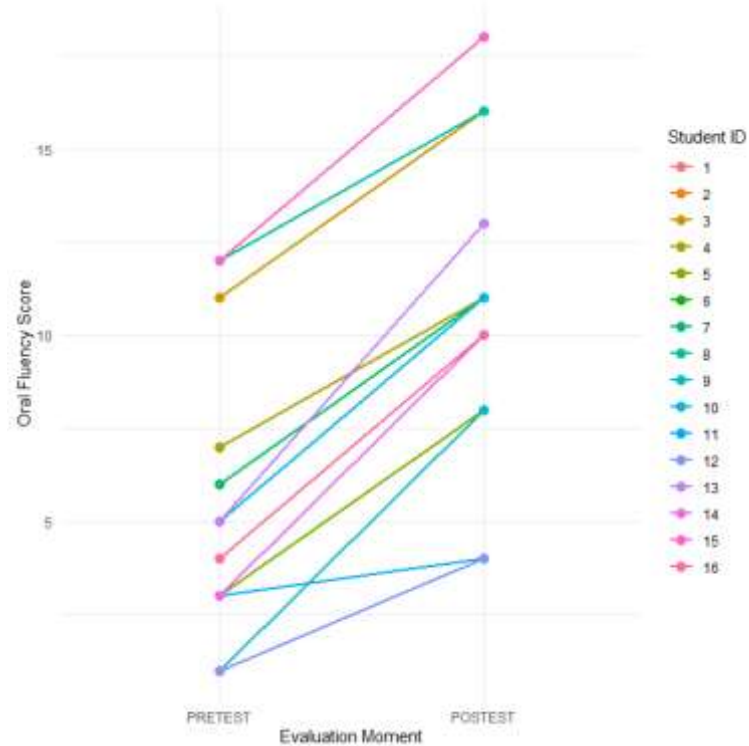


Note. N = 16. The pretest shows 2 outsider data corresponding to students' ID = 8 and ID = 15 who obtained 12 out of 20 points.

Nevertheless, even students with a foundation in oral skills showed overall improvement. As can be seen in Figure 2, there is a positive trend in all Oral Fluency scores between the first (pre-test) and second (post-test) assessments. The presence of different slopes implies that students assimilated the implementation through Character AI at different levels, which corresponds to the increase in standard deviation (post-test SD = 4.22, pre-test SD = 3.61) observed in Table 3.

Figure 2

Spaghetti plot for the Oral fluency analysis between pre and post test

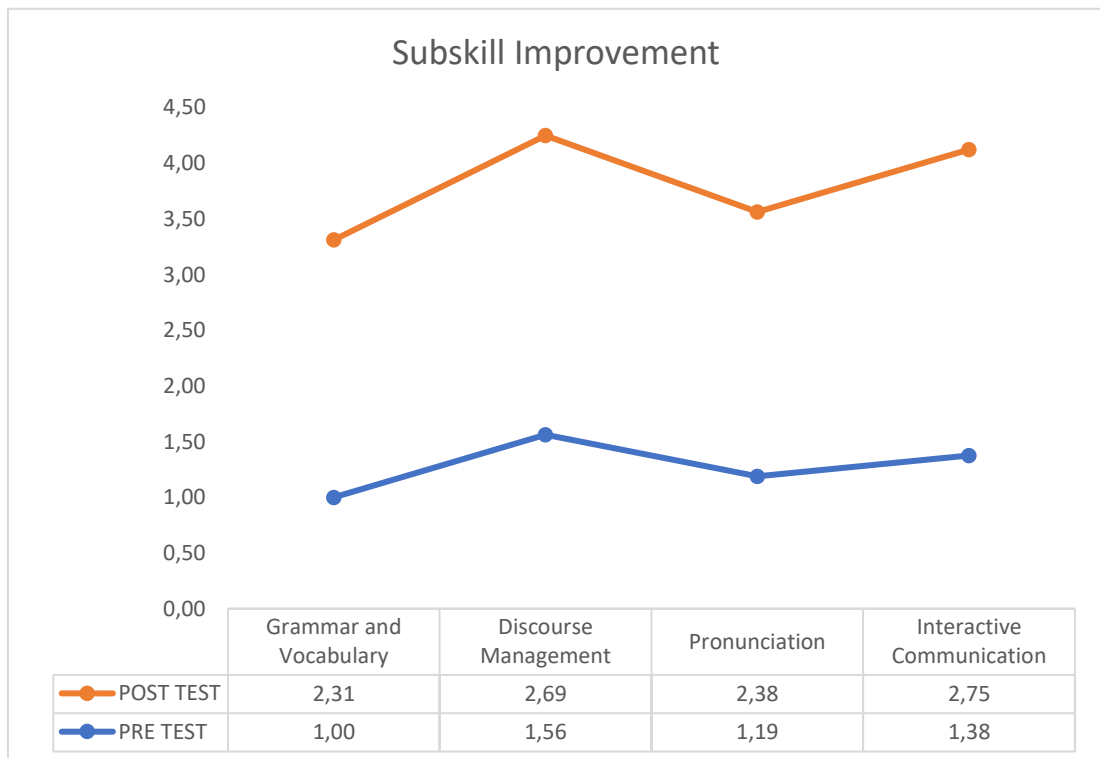


Note. N = 16. The Figure shows a general increasing slope from pre test to post test

The overall increase in students' speaking skills can be supported by the improvement observed in the different sub skills. Figure 3 shows how each of the sub skills assessed by the Cambridge PET test has higher averages in the post-test. These results are congruent with the fact that the implementation of Character AI, based on the principles of the MALL methodology, leads to an improvement over traditional teaching methods.

Figure 3

Oral Fluency subskill means

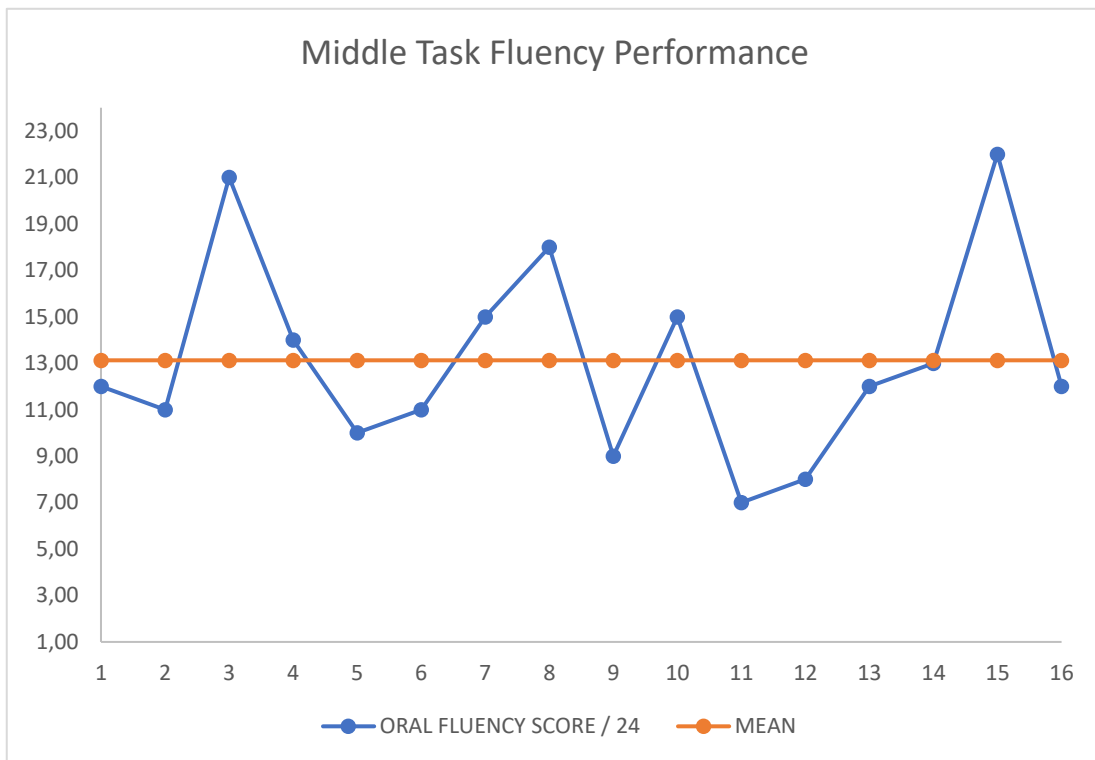


Note. N = 16. All subskills for oral fluency tended to increase as a result of the implementation of Character AI.

Additionally, to evaluate the progress of students' oral performance during the progressive sessions with Character AI, a rubric was applied individually to the students. The average score of the students was 13.13, as shown in Figure 4, placing them at the “Good progress” level. However, the standard deviation of 4.29 reflects moderate dispersion, implying the need for differentiated instruction. Through this general analysis, it was determined that students with high scores could benefit from greater challenges, while those with below-average scores needed to strengthen their oral skills.

Figure 4

Results for Oral Fluency Evaluation Rubric



Note. N = 16. Individual oral fluency scores collected using the Oral Fluency Evaluation Rubric.

5.3.2 Teacher Perspectives on Oral Fluency Development Through Character AI

The qualitative data obtained through the semi-structured interview were analyzed using an a priori categorization aligned with Objective 3 in order to understand the teacher's perspective on the use of Character.ai. This analysis allowed for a deeper understanding of the results concerning oral fluency development through the implementation of the application. To this end, categories were established based on key dimensions related to fluency, communicative confidence, interactive participation, pedagogical effectiveness, observed improvements, and reported limitations. Table 5 presents the main categories, representative excerpts from the interview, and their interpretive meaning.

Table 5*A Priori Categorization of Teacher Interview Findings*

	Subcategory	Relevant excerpt	Interpretation
Oral fluency development	Pre intervention	“Before using Character AI, most students demonstrated a basic to intermediate level... they hesitated frequently... and struggled with maintaining extended conversations.”	The teacher's perceptions indicate a positive change in students' oral fluency
	Post Intervention	“There was a reduction in pauses and fillers, and students were able to sustain conversations for longer periods.”	performance after the implementation of Character AI. There is a noticeable improvement in speech fluency and better control over oral production.
	Vocabulary Expansion	“They incorporated new expressions into classroom discussions.”	
	Pronunciation Awareness	“Students became more aware of word stress and intonation patterns.”	
Communicative confidence	Reduced Anxiety	“Character AI significantly enhanced students' confidence... they felt less pressure. This reduced their affective filter and encouraged more risk-taking in language production.”	The AI-supported environment appeared to reduce students' anxiety levels and increase their willingness to participate in oral interactions. The shift from fear to willingness to experiment, combined with greater autonomy in constructing conversations,
	Willingness to practice	“Students seemed more willing to practice because the app provided a non-judgmental environment.”	
	Autonomous interaction	“They began to experiment with different conversational topics and	

	Motivational shift	showed greater autonomy.” “Their attitude shifted from fear of making mistakes to curiosity and experimentation.	indicates that students participated more actively in oral speech.
Pedagogical contributions	Practice Opportunities	“Character AI provided immediate, personalized responses that simulated real interaction... it complements classroom activities by increasing practice opportunities.”	The results show that Character AI is an additional learning tool that boosts interactivity in speaking practice. by simulating conversations and giving instant responses.
	Technical Challenges	“Occasional technical Issues such as connectivity problems and inconsistent AI responses.”	These factors suggest that Character AI's effectiveness in supporting oral language development
Limitations affecting fluency	Need for Guided Prompting	“Some students required initial guidance to formulate meaningful prompts... ensuring that interactions remained academically focused rather than purely conversational.”	relies on careful implementation and pedagogical monitoring.

Note. Categories were established a priori based on Objective 3. The excerpts correspond to representative statements from the semi-structured interview conducted with the English teacher. The interpretations reflect the analytical coding performed by the researcher.

The professor's interview indicates that with the implementation of Character AI there was an improvement in the main aspects of oral fluency, particularly in key areas such as the flow and consistency of speech. Before the intervention, students only produced basic sentences, lacked confidence in what they were saying, relied on memorized phrases, and struggled to maintain long conversations. However, after the intervention, the teacher noted significant improvements. The number of pauses and fillers when speaking decreased, while

the ability to hold longer conversations in English improved. Without a doubt, this progress was made possible by consistent practice with AI.

An important factor in developing fluency is communicative confidence. According to the teacher, learning in an environment free from criticism and pressure increased students' willingness to practice the language, thus promoting their fluency. These findings align with the view that fear of negative evaluation can limit oral performance, increasing self-doubt and hesitation. Therefore, the use of Character AI may have reduced the affective filter, encouraging “risk-taking” (language practice) and boosting students' confidence. This suggests a possible link between the use of Character AI and the improvement of oral fluency due to increased and continuous practice.

Moreover, the teacher also reports a gradual increase in student involvement due to continuous and repeated exposure, observing more independent participation and greater autonomy in managing interactions. This autonomy is also supported by vocabulary acquisition, which was made possible through interaction with AI. In addition, the teacher reports improvements in phonological awareness, including attention to the stress and intonation of words and the incorporation of new expressions in classroom discussions. Undoubtedly, all of this contributed to improved oral fluency, enhancing the perceived spontaneity of speech.

The professor's critical perspective also outlines the limitations that were present. Technical issues, such as connectivity problems and some inconsistencies in responses, may have led to fragmented interactions with students, reducing the time spent on the task. The teacher also highlights the need to focus interactions on learning objectives, which means that pedagogical effectiveness depends on the alignment with task design, learning objectives, and the supervision of the teacher. Consequently, when implementing Character AI, it is important to consider not only the results but also the conditions of implementation, which determine whether students receive consistent and purposeful oral practice.

Overall, the qualitative results support the effectiveness of the mobile app implementation by documenting the reduction in initially perceived disfluency, increased conversational competence, and greater confidence, which plausibly expands opportunities for oral practice.

5.3.3 Integrated Analysis of Quantitative and Qualitative Findings

The combination of quantitative and qualitative data provided a comprehensive understanding of the impact of Character AI on the development of students' oral fluency. Quantitative results from pre- and post-intervention tests indicate significant progress in oral fluency indicators, particularly a reduction in pauses, improved speech continuity, and an increased ability to hold a conversation for an extended period. These statistical improvements demonstrate that the intervention positively impacted students' oral expression.

This finding is supported by the qualitative results obtained during the semi-structured interview. The teacher observed a significant decrease in the number of pauses and filler words, as well as greater fluency and the ability to participate in longer interactions. This corroboration from both sources of data reinforces the reliability of the results, as the improvements observed by the teacher match the quantitative effectiveness indicators obtained during the assessment.

Besides improving structural fluency in speech, qualitative data also highlights emotional and motivational aspects that help explain quantitative improvement. Students showed greater confidence in communication, decreased anxiety, and their desire to participate in class activities grew. Furthermore, having a non-judgmental environment fostered more spontaneous and stable speech. The above suggests that the development of oral fluency also depended on psychological factors.

In addition, qualitative data demonstrated an improvement in vocabulary and pronunciation, supporting the results that indicated a measurable development in speech fluency, as observed through the rubric and post-test. Altogether, the alignment of both data sources supports the reliability of the findings and confirms the pedagogical potential of Character AI as a complementary tool for enhancing oral expression in the context of English as a foreign language.

6. Discussion

The findings obtained from both the quantitative and qualitative instruments provide consistent evidence regarding the contribution of Character.AI to the development of students' oral fluency, as this AI can act as a valuable teaching aid in English as a foreign language teaching environment, where opportunities for real oral communication are scarce. These results respond directly to the objectives of the study, particularly the bibliographical analysis, the design and implementation of the tool, and the evaluation of its impact on students' speaking performance.

From a theoretical perspective, the bibliographical review confirmed that continuous and goal-oriented speaking practice plays a fundamental role in fluency development (Kim, 2023). In line with this, previous research has highlighted the value of AI-mediated environments as safe spaces where learners can practice speaking without fear of negative evaluation (Napitupulu & Dalimunte, 2025). The immersive and approachable dialogue generated through AI characters appears to encourage participation and extended interaction, which are essential components in oral skill development.

Similarly, Pataranutaporn et al. (2021) argue that AI-generated characters can enhance learning experiences by creating virtual interlocutors with whom students can empathize. This relational dimension may explain why students in the present study reported feeling more comfortable engaging in conversation. Filatov (2024) emphasizes that character-based AI holds significant educational potential, as it is capable to foster communication skills through innovative and accessible virtual interaction. Similarly, studies on related

applications have also reported improvements in fluency (Albedah, 2025; Alenezi & Alenezi, 2025; Du & Daniel, 2024; Hazaymeh et al., 2024; Padilla et al., 2025; Xuhong et al., 2025), reinforcing the idea that AI-driven conversational simulators can function as structured tools for guided oral practice.

In terms of implementation, the intervention can be understood within the framework of Mobile-Assisted Language Learning (MALL) concept, which expands opportunities for language practice beyond classroom (Miangah & Nezarat, 2012). One of the main advantages identified during the strategy was the immediacy of feedback and the personalization of interaction. Rebolledo and González (2023) highlight that AI systems can generate customized tasks and provide instant responses adapted to learners' needs. This adaptability is supported by machine learning processes that analyze user interaction patterns in order to adjust responses and improve effectiveness (Hilbert et al., 2021). Furthermore, access to immediate feedback and interactive features encourages learner autonomy, allowing students to practice independently while still receiving guidance (Rusmiyanto et al., 2023).

However, the effectiveness observed in this study cannot be attributed solely to the technological tool. As Vančová (2023) suggests, technology reaches its educational potential only when integrated into a well-structured pedagogical framework. The teacher's role remained essential in guiding tasks, monitoring interaction, and ensuring that the application supported learning objectives rather than replacing cognitive effort. This consideration is particularly relevant given concerns raised in recent research about potential cognitive overload or superficial engagement when AI is used without pedagogical guidance (Elzerman, 2025).

Concerning the evaluation of outcomes, the intervention demonstrated significant progress in speech continuity, reduced hesitation, and increased communicative confidence. These improvements are consistent with literature that associates repeated speaking practice with fluency enhancement (Kim, 2023). Qualitative data further revealed that students experienced lower levels of anxiety when interacting with AI characters, which aligns with theoretical perspectives that emphasize the influence of emotional factors on language performance (Alvarez et al., 2024). When affective barriers decrease, learners appear more willing to participate and sustain oral interaction.

Nevertheless, it is important to recognize that AI-mediated practice does not automatically enhance all dimensions of oral competence. The progress observed seems to result from a combination of increased exposure, structured practice opportunities, reduced emotional pressure, and guided implementation. In this sense, Character.AI functioned as a complementary resource rather than a replacement for instructional support.

Overall, these findings contribute to the still limited body of literature on the implementation of AI-powered chatbots, such as Character.AI, for the development of oral skills in Latin American educational contexts. While previous research has often focused on other language skills, particularly writing, or has examined general EFL populations in

different geographical regions, this study provides contextualized evidence of the feasibility of integrating Character.AI into university programs in Ecuador, specifically within discipline-based contexts such as Agronomy. By situating the intervention within a non-linguistic academic program, the research expands current discussions on AI-assisted language learning and highlights its applicability beyond traditional language classrooms.

CHAPTER V. CONCLUSIONS AND RECOMMENDATIONS

7. Conclusions

A bibliographical review on the use of Character AI for improving oral fluency allowed the identification of relevant theoretical foundations and previous research on AI-based speaking practice. Most of the reviewed studies support the use of AI platforms to enhance communication skills by providing a low-anxiety, judgment-free environment that increases students' motivation. In this sense, the relevance and usefulness of this study is clearly supported.

The design and implementation of activities using Character AI promoted consistent and meaningful oral practice. Through structured planning with clear communicative goals and progressive tasks, students increased their confidence and participation in English. Therefore, the pedagogical use of this application constitutes an effective complementary resource for strengthening oral fluency in EFL contexts.

Oral fluency was assessed using Character AI, revealing improvements in speech flow, reduction of pauses and hesitations, expansion of vocabulary, and increased willingness to communicate in English. Quantitative data revealed significant progress in fluency indicators, while qualitative findings confirmed these changes from the teacher's perspective. Overall, Character AI demonstrated potential as a complementary practical tool that supports systematic speaking practice and facilitates observable progress in oral performance.

8. Recommendations

The limited research on the use of Character AI to improve oral fluency, especially in Latin American contexts, highlights the need for further empirical studies. Future research should adopt experimental, quasi-experimental, or longitudinal designs to provide stronger evidence of its educational impact and deepen the academic understanding of AI-assisted oral communication strategies in English as a foreign language teaching environment.

Language teachers are encouraged to integrate AI-based chatbots, such as Character AI, as complementary tools for oral practice. However, activities should be carefully planned with clear communicative objectives, an appropriate linguistic focus, and adaptation to students' proficiency levels. Potential challenges such as internet access, over-reliance on AI, and digital literacy should also be considered.

Given the notable improvement in students' oral fluency and the positive perceptions reported, it is recommended the use of Character.AI as a complementary tool for assessing oral production. Since AI-mediated interaction can provide students with a low-anxiety environment that encourages spontaneous speech production and self-confidence. Nevertheless, it should not replace teacher-led evaluation but rather serve as a complementary assessment support.

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ANNEXES

ANNEXE 1. Oral Fluency Evaluation Rubric

Criteria	Excellent (4)	Good (3)	Fair (2)	Needs Improvement (1)
Fluency	Speaks smoothly and continuously with very few pauses or hesitations during the interaction with Character AI. Shows natural rhythm and flow.	Generally fluent, with occasional pauses that do not hinder communication.	Frequent pauses or hesitations make communication slow, but meaning is usually clear.	Speech is mostly fragmented or broken; communication is hard to follow.
Coherence and Interaction with Character AI	Maintains a coherent and logical conversation with Character AI; provides relevant responses and uses appropriate follow-up questions.	Conversation is mostly coherent; responses are relevant but sometimes lack elaboration.	Responses are sometimes off-topic or incomplete; difficulty maintaining flow in the interaction.	Fails to keep the conversation going; responses are minimal or unrelated.
Vocabulary Range and Appropriacy	Uses a wide variety of vocabulary accurately and appropriately according to the simulated context in Character AI.	Uses adequate vocabulary with minor inaccuracies; occasionally repeats words.	Limited vocabulary; relies on basic words and expressions.	Very restricted vocabulary; frequent misuse of words affecting understanding.
Grammar and Accuracy	Uses a range of grammatical structures accurately and effectively; few or no noticeable errors.	Some grammatical errors but meaning remains clear.	Frequent errors that occasionally cause confusion.	Constant grammatical errors that impede comprehension.

Pronunciation and Intonation	Pronunciation and intonation are clear and natural, with only minor issues; easily understood by Character AI.	Mostly clear pronunciation, though occasional mispronunciations occur.	Pronunciation sometimes unclear; meaning occasionally misunderstood.	Pronunciation errors often prevent understanding.
Engagement and Motivation	Shows enthusiasm and confidence when interacting with Character AI; uses the tool actively to express ideas and maintain conversation.	Participates willingly; demonstrates moderate engagement.	Limited engagement; answers briefly without expanding ideas.	Low motivation or participation; avoids speaking or ends conversation quickly.

Scoring and Interpretation:

- 18–24 points: Excellent oral fluency development
- 12–17 points: Good progress, but needs more practice
- 6–11 points: Limited fluency, requires more interaction and feedback
- 0–5 points: Very low fluency; needs focused support and guidance

ANNEXE 2.

Semi-Structured Interview Guide for the English Teacher

Introduction:

The following interview is part of the research titled: "The Use of the Mobile Application of Character AI to Improve Oral Fluency in EFL Students." This study aims to analyze the effectiveness of the mobile application Character AI to improve oral fluency in English as a foreign language university students. Specifically, this segment of the research aims to understand teacher's perceptions, experience, and observations regarding the use of the AI app.

The instrument was developed based on a comprehensive literature review and derived from the study's specific objectives. The questions aim to explore your insights, and experience related to the development of oral comprehension in students. Your participation is highly appreciated. All information provided will remain confidential and will be used exclusively for academic and research purposes.

Interview Details

Objective: To analyze teacher's perceptions, experience, and observations regarding the use of the mobile application Character AI to improve oral fluency in English as a foreign language.

Place: _____

Date: _____

Start Time: _____

End Time: _____

Name of Interviewee: _____

Position: _____

Faculty/Department: _____

Name of Interviewer: _____

Years of Experience: _____

Academic Degree: _____

Ice-Breaker Question:

1. If you could have a conversation with any famous person using an AI chatbot, who would it be and why?

Interview Questions:

2. How would you describe your students' initial level of oral fluency before using Character AI?

3. What was your perception of students' motivation and attitude toward speaking English before and after using the app?

4. How do you think Character AI influenced the students' confidence when speaking English?

5. What specific improvements did you observe in students' pronunciation, vocabulary, or fluency during the activities?

6. Were there any challenges or limitations that you identified while using Character AI in the classroom?

7. How effective do you think the app was in promoting authentic communication compared to traditional classroom speaking activities?

8. From your perspective, how did students interact with Character AI did they engage naturally or require constant guidance?

Reflective/Closing Questions:

9. In your opinion, could Character AI be integrated into future English classes? If so, what aspects would you recommend improving or maintaining?

ANNEXE 3. LITERATURE REVIEW MATRIX

Title	Author	Year	Context	Tool	Main Findings
Using Chatbots as AI Conversational Partners in Language Learning	Belda & Calvo	2022	EFL students Future educators	AI Chatbot (Kuki, Replika, Wysa)	Positive results regarding usefulness, ease of use, and attitude toward chatbot integration, however, the interest in using them in the near future is limited.
Stimulating task interest: human partners or chatbots?	Thompson et al.	2018	University students	AI Chatbots	A decrease in interest in chatbots; stable interest in interacting with human peers.
A study of students' perception of character AI in practicing English speaking fluency	Napitupulu & Dalimunte	2025	High school students	Character AI	Reduced hesitation; improved sentence construction; expanded vocabulary; reduced anxiety; increased willingness to speak thanks to a non-judgmental environment. However, some technical issues and difficulties were encountered during implementation.
The Role Of Artificial Intelligence (AI) In Developing English Language Learner's Communication Skills	Rusmiyanto et al.	2023	English language learners	Artificial Intelligence	Through personalized and interactive learning experiences, AI can significantly improve English communication skills.
Enhancing English Language Learning Through Artificial	Rohmiyati	2025	English Language Learning	Artificial Intelligence	Artificial intelligence offers tremendous opportunities to transform the English

Intelligence: Opportunities, Challenges and the Future					language learning process. However, its use as a supplement to human teaching should be carefully considered, given limitations in speech recognition, cultural and emotional differences, unequal access to technology, and the risk of over-reliance.
Artificial intelligence-based language learning: illuminating the impact on speaking skills and self-regulation in Chinese EFL context	Qiao & Zhao	2023	EFL students	AI-based language learning application (Duolingo)	Significant improvement in L2 oral skills as a result of AI-based training, as well as higher level of self-regulation. Additionally, AI fosters students' autonomy and cognitive strategies in speaking.
Using AI Platforms to Improve Listening and Speaking Skills in ESL Primary Students	Vincent et al.	2025	ESL school learners	AI-driven platforms (Chatbots)	There was a 25% improvement in oral fluency in the AI group. It highlights the transformative role of AI in teaching English as a second language (ESL) nowadays.
Supporting english speaking practice in higher education: the impact of AI chatbot-integrated mobile-assisted	Zhou et al.	2025	EFL students	AI Chatbots	Positive feedback on usefulness and ease of use; high level of engagement and satisfaction; broad recognition; potential of AI-powered chatbots to improve

blended learning framework					English speaking skills.
Using AI for Students' Attitudes to Improve their Speaking Skills at a University	Hùng Cường	2024	English university students	AI-based websites	Positive aspects were obtained, such as increased commitment, as well as possible disadvantages related to the technology itself.
English speaking with artificial intelligence (AI): The roles of enjoyment, willingness to communicate with AI, and innovativeness	Huang & Zou	2024	EFL students	Artificial Intelligence	Positive perceptions of applying AI to enhance English speaking
EFL Instructors' Perspective on Using AI Applications in English as a Foreign Language Teaching and Learning	Hazaymeh et al.	2024	EFL instructors perspective	AI applications	Enthusiastic view on the use of AI apps; effective improvement in language acquisition in EFL; helps with individualized practice and feedback.
Implementation of Artificial Intelligence (AI) in EFL Classes: an Analysis of Its Praxis in Oral Communication Courses to Boost Learners' Speaking Skills at Universidad Nacional (UNA), Campus Liberia	Chavarría	2025	EFL students	Artificial Intelligence	An essay exploring the key role of artificial intelligence in increasing participation, motivation, and self-confidence when speaking.

Exploring the Benefits and Challenges of AI-Language Learning Tools.	Rebolledo & González	2023	Benefits and limitations	AI-Language Learning Tools	It shows some advantages: time savings, faster and more personalized learning, and greater intercultural awareness. And limitations: less human interaction, difficulties in understanding cultural and contextual nuances, and high data requirements for AI training.
Redefinition of human-centric skills in language education in the AI-driven era	Qassrawi & Karasneh	2025	Language education	Artificial intelligence	Significant improvement in pronunciation, grammatical fluency, and vocabulary; enhanced learning through adaptive learning, automatic assessment, and personalized content.
AI in Education: A Systematic Literature Review.	Tahiru	2021	Education	Artificial intelligence	Increased use of artificial intelligence in education in developed countries; boom in scientific research in the era of Industry 4.0.
AI and AI-powered tools for pronunciation training.	Vančová	2023	Foreign language pronunciation	AI-powered tools (mobile and web applications, chatbots, intelligence)	Positive impact of AI on language teaching: improved language skills and motivation; gradual adoption in vocabulary and grammar; growing focus on pronunciation; limited

				t virtual assistants)	research on its pedagogical integration; need to promote AI tools for pronunciation training.
Development of students' foreign language communicative skills based on the character.ai web application	Filatov	2024	EFL students	Character.ai	Methodological features of character.ai stand out: creation of virtual assistants (custom or pre-designed), voice communication, character creation, and response modification. Its main uses are considered to be: 40.2% written interaction, 37.4% role-playing, and 22.4% oral interaction.
AI-generated characters for supporting personalized learning and well-being	Pataranutaporn et al.	2021	Education fields	AI-generated characters	The use of AI characters has a positive influence on students' behavior, attitudes, and motivation; the use of fictional characters and narratives increases attention and engagement in learning.
Exploring the Impact of AI Chatbots on EFL Learners' Conversational Proficiency	Aliakbari et al.	2025	EFL students	AI chatbots	AI chatbots function as an effective complementary tool for improving specific aspects of conversational competence, especially when used

					alongside traditional teaching methods.
Mobile Applications for Enhancing Oral Fluency in English as a Foreign Language Learners: A Systematic Review.	Padilla et al.	2025	EFL students	AI mobile applications	There is a positive impact of mobile applications on language skills (real-time correction, personalized exercises, and greater autonomy); greater flexibility and personalized support. However, challenges such as technological inequality and algorithmic limitations were found.

ANNEXE 4. EVIDENCE

