

INVESTIGACIÓN CONTEMPORÁNEA

DESDE UNA VISIÓN MULTIDISCIPLINAR

LIBRO 8. TECNOLOGÍA Y ENSEÑANZA DE INGLÉS



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PRÓLOGO

En un mundo donde la tecnología redefine constantemente las formas de enseñanza y aprendizaje, la adquisición de una segunda lengua no es una excepción. La enseñanza del inglés, en particular, ha evolucionado significativamente gracias a la incorporación de herramientas digitales y metodologías innovadoras. Este libro presenta un compendio de estudios que exploran el impacto de diversas estrategias tecnológicas y pedagógicas en el aprendizaje del inglés, enfocándose en la adquisición de vocabulario y el desarrollo de habilidades orales.

A lo largo de sus capítulos, se analizan experiencias y percepciones de estudiantes frente a metodologías como el método Total Physical Response, estrategias de dramatización como el Role-play, y el uso de aplicaciones interactivas como Nearpod y Talkpal Artificial Intelligence en la enseñanza-aprendizaje del idioma inglés como lengua extranjera en el contexto ecuatoriano. Cada estudio aporta evidencia sobre la eficacia de estas estrategias en distintos niveles de enseñanza, proporcionando una visión integral sobre cómo la tecnología y la metodología pueden converger para mejorar el aprendizaje del inglés.

Esperamos que esta obra sea de utilidad para docentes, investigadores y estudiantes interesados en la innovación educativa. Que este recorrido por diversas experiencias inspire nuevas prácticas y estrategias en el aula, favoreciendo un aprendizaje del inglés más significativo y efectivo.

Marcia Iliana Criollo Vargas

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CAPÍTULO 1

USING NEARPOD APPLICATION ON ENHANCING ENGLISH VOCABULARY LEARNING AMONG NINTH-GRADE STUDENTS

USO DE LA APLICACIÓN NEARPOD PARA MEJORAR EL APRENDIZAJE DEL VOCABULARIO EN INGLÉS EN ESTUDIANTES DE NOVENO GRADO

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Abstract

This study investigates the use of the Nearpod application in improving English vocabulary in ninth grade students of upper secondary education in a public school in Loja. The aim of the research was to determine whether the Nearpod tool could help students' ability to improve their vocabulary. A mixed-method approach was used, combining quantitative data through pretest and posttest assessments and qualitative data by using a survey with the Likert's scale. The results show improvements in students' vocabulary, including the appropriate use of words in different contexts, understanding their meaning, and using their structure. This suggests that activities carried out with Nearpod, such as interactive lessons, visual aids, real-time assessments, and customizable lessons by memorization activities, fostered motivation and engagement in vocabulary learning. These results demonstrated that the use of Nearpod as an effective tool improves vocabulary learning in ninth grade students, specifically in form, meaning, and use components.

Keywords: application; interactivity; motivation; pedagogical tool; vocabulary.

Resumen

Este estudio investiga el uso de la aplicación Nearpod en la mejora del vocabulario en inglés en estudiantes de noveno grado de educación media superior de un colegio público de Loja. El objetivo de la investigación fue determinar si la herramienta Nearpod podría ayudar a los estudiantes a mejorar su vocabulario. Se utilizó un enfoque de método mixto, combinando datos cuantitativos a través de evaluaciones pretest y posttest

y datos cualitativos mediante el uso de una encuesta con escala de Likert. Los resultados muestran mejoras en el vocabulario de los estudiantes, incluido el uso apropiado de las palabras en diferentes contextos, la comprensión de su significado y el uso de su estructura. Esto sugiere que las actividades realizadas con Nearpod, como lecciones interactivas, ayudas visuales, evaluaciones en tiempo real y lecciones personalizables mediante actividades de memorización, fomentaron la motivación y la participación en el aprendizaje de vocabulario. Estos resultados demostraron que el uso de Nearpod como herramienta eficaz mejora el aprendizaje de vocabulario en estudiantes de noveno grado, específicamente en los componentes de forma, significado y uso.

Palabras Clave: aplicación, interactividad, motivación, herramienta pedagógica, vocabulario.

1. INTRODUCTION

Learning English vocabulary is essential for students to develop effective language skills, as an extensive vocabulary allows them to understand and use the language efficiently (I. S. P. Nation, 2018). In an ideal environment, teaching methods combine traditional techniques with modern technological tools, increasing student interest and participation. Interactive platforms such as Nearpod are especially useful, as they offer dynamic lessons that encourage retention and practical use of new vocabulary (Tyson, 2021). However, in many classrooms, memorization of words is still prioritized without actively engaging students, which limits their learning. Therefore, it is essential to create an environment where students not only acquire vocabulary, but also actively use it in their daily lives.

As important as learning English vocabulary is, many students in Ecuador face problems that limit their learning. For example, conditions in schools present major obstacles: access to modern technology is limited and teaching methods are often largely traditional (González, 2020). However, in a world where interaction and the use of technology are key to learning, students are placed in classrooms that do not encourage their active participation. Unfortunately, this creates a huge gap between what should be—a dynamic, student-centered educational approach—and the reality of a system that focuses more on memorizing words without giving the necessary tools to use them in practice. As a result, students not only have difficulty learning new vocabulary, but they also lose motivation and interest in the language (Javed, 2021).

Previous studies have highlighted the potential of Nearpod as a tool to enhance English learning and student engagement. For example, Burton

(2019), at Griffith University in Australia, found that Nearpod helps create a positive learning environment that facilitates vocabulary acquisition through interactive activities. Similarly, Simpson (2024) at the University of Louisville, highlighted how Nearpod's customizable features allow teaching to be tailored to different learning styles, helping teachers engage students. In Vietnam, Nguyen & Nguyen (2023) studied the perceptions of English learners in online classes and concluded that Nearpod increases student engagement and confidence. Finally, Sanmugam & Selvarajoo (2019) at Sains University in Malaysia, compared Nearpod to traditional teaching methods, showing that this platform fosters more dynamic learning, although it faced some technical challenges. These studies show the effectiveness of Nearpod in language learning, although more research is needed on its impact in Latin American contexts to better understand its benefits and limitations.

Although the above studies highlight the value of Nearpod for teaching English, there are some important shortcomings that require further exploration. First, most research has been conducted in specific contexts, such as Australia, the United States, Vietnam, and Malaysia, which limits the generalizability of the results to other settings, such as Latin America. Furthermore, the available studies do not explore in depth how students' sociodemographic or cultural characteristics influence their perception and effectiveness of using Nearpod, leaving a gap in the literature on its impact on diverse populations. It is also necessary to consider that the samples studied do not include high school students or those from contexts with low technological access, which limits the understanding of the potential of Nearpod in environments with limited resources (García, López, & Pérez, 2020). These gaps point to the importance of expanding research towards underrepresented groups and in varied contexts, replicating studies in different regions to validate or contrast previous

findings, as well as to adapt learning strategies to the needs of specific contexts.

This study is relevant because it addresses the teaching of English through interactive technological tools in Latin American contexts, where access to modern resources may be limited. Teachers, students, administrators, and educational policy makers will benefit from this research. For teachers, this study offers methodological alternatives that encourage active student participation and improve vocabulary retention. Students, in turn, could experience more effective and motivating learning, moving away from traditional approaches based on memorization. School administrators and educational policy makers may also find in this study support for implementing technology such as Nearpod in their institutions, supporting an updated, student-centered teaching model (Hakami, 2020). In a global context where English proficiency is increasingly necessary, especially in the workplace, this study provides a basis for improving language teaching and, therefore, expanding the academic and professional opportunities of students in the region.

This study aims to analyze how digital tools such as Nearpod can enhance English vocabulary learning compared to traditional methods. The research is valuable for students, teachers, and the educational community as it addresses the need for more effective and motivating methods. Since conventional methods have limitations, especially without interactive technology that encourages participation, the study seeks to demonstrate how digital tools can offer more dynamic and effective vocabulary learning. Thus, the general objective of the research is to examine the effectiveness of Nearpod as a tool for enhancing English vocabulary learning among ninth-grade students at a Public School in Loja, during the 2024-2025 school year. The present Research aims to answer the following research

questions: How effective is Nearpod in enhancing English vocabulary learning among students compared to traditional vocabulary learning methods? To solve this question, it is necessary to answer the following question: How do students perceive the interactive features of Nearpod as a tool for learning vocabulary? By answering these questions, the study will provide important information on how the Nearpod can improve English language learners' vocabulary.

2. LITERATURE REVIEW

2.1 The Importance of Vocabulary Learning in English

Vocabulary is the foundation of any language learning process, and mastering a broad vocabulary is crucial for effective communication in English. Hatch & Brown (2015) define vocabulary as the collection of words an individual uses to express thoughts, ideas, and emotions. In language learning, vocabulary directly influences the ability to read, write, listen, and speak fluently. Schmitt (2000) points out that a robust vocabulary improves critical thinking and understanding of complex ideas, which is essential in academic and professional settings.

However, traditional methods of teaching vocabulary often fall short in fostering deep, lasting word retention. These traditional techniques rely heavily on rote memorization and passive learning methods. In contrast, digital tools, like the Nearpod platform, are transforming vocabulary instruction by creating more engaging and interactive experiences for learners. This literature review will explore traditional teaching methods, the role of digital resources, and how Nearpod enhances vocabulary learning through interactive and personalized strategies.

2.2 Factors of vocabulary

- ~ **Use:** It is the way words are used in different contexts when making a sentence. In addition, it implies understanding when to use words in formal or informal moments, for which it is necessary to know the social and cultural context (McCarthy & O'Dell, 2017). As a result, vocabulary is necessary to elaborate the message to be communicated, since it is an important part of linguistics and communicative competence.
- ~ **Meaning:** Knowing the definition of a word, it is important to understand its nuances and the different contexts in which it can be used. Words can have various meanings depending on the context (Jackson & Amvela, 2000). For example, "home" can be used to detail qualities such as warmth or comfort. Understanding such meaning is necessary to craft or manifest well-structured words to convey thoughts and emotions appropriately.
- ~ **Form:** The form of vocabulary includes structural aspects of words, which are: morphology, phonology and spelling (Laufer, 2006). First, morphology helps students recognize the patterns and rules that govern the formation of each word, such as prefixes, suffixes, and roots. Then, phonology allows for correct pronunciation and writing, which are important for improving linguistic skills and the ability to perceive and generate language accurately. Lastly, spelling allows us to identify the types of words, such as nouns, verbs, adjectives, and adverbs.

2.3 Activities to learn the Use of vocabulary:

Interactive Lessons. Nearpod proposes some benefits for learning English vocabulary in classroom. One of the most important benefits in this platform is the ability to create joining and interactive lessons. Also, by

incorporating multimedia elements, for example: slides, videos, songs, and collaborative tools. Additionally, this app “makes learning more dynamic and helps learners better understand and retain new language” (Sanmugam & Selvarajoo, 2019). Because of these elements, learners that are visual, auditory, or kinesthetic will all benefit from the lessons.

Real-Time Assessment Tools. These allow teachers to monitor learners progress and understanding, making it easier to identify areas where students may need additional support. “This can be done through quizzes, polls, and open-ended questions, allowing teachers to provide immediate feedback and address any misunderstandings promptly” (Worrell, 2021).

2.4 Activities to learn the Meaning of vocabulary:

Visual Aids. These **activities** are complementary and help the teacher to improve students' vocabulary since most of them learn by observing. The **most used** visual aids are flashcards, graphs, and mind maps because they connect words with images, thus reinforcing word comprehension through visual representation. As a result, this visual connection helps learners retain and remember new vocabulary by associating words with visual cues, making the learning process more interactive and effective.

Mnemonics and Acronyms. “To additional reinforce memory, mnemonics and acronyms serve as effective tools, supporting students to recall words more easily by associating them with memorable phrases or concepts” (Atkinson, 2021). These retention aids make it easier to learn new English vocabulary by connecting words to well-known and easily remembered associations.

2.5 Activities for learning vocabulary Form:

Customizable Lessons and Resources. In Nearpod application there is a library with different lessons and academic resources that help teachers to design lessons to help the individual needs of their students, in order to encourage a personalized learning experience. Definitely, Nearpod application has an important option that permit design lesson that adapt to the diverse needs and learning pace of students, improving the overall effectiveness of each class (Sanmugam & Selvarajoo, 2019).

2.6 Traditional Vocabulary Teaching Methods

Historically, vocabulary learning has been approached through methods such as memorization of word lists, fill-in-the-blank exercises, and spelling tests. Mediha & Enisa (2014) describe these techniques as "direct instruction," where teachers provide words for students to memorize without offering much context for real-world application. The limitation of these traditional methods is that they treat vocabulary learning as an isolated task rather than integrating it into meaningful communication or contextual activities. As a result, students often struggle to retain and apply the words they learn, which can hinder their overall language development.

Richards & Rodgers (2014) argue that these methods are effective to some extent, especially for beginners, but they lack the interactivity and engagement needed to sustain long-term vocabulary retention. Students are often expected to memorize words without fully understanding their usage, which can lead to confusion, frustration, and a lack of motivation to continue learning. Additionally, these techniques do not cater to different

learning styles; for example, visual and auditory learners may find it difficult to engage with simple text-based activities.

In summary, while traditional methods provide a foundational approach to vocabulary learning, they are limited in their ability to make the process engaging and relevant to students' lives. This has led educators to explore more innovative teaching strategies, particularly those that leverage technology to create more interactive and personalized learning experiences.

2.7 The Shift Toward Digital Resources in Education

With the rise of technology, education has seen a significant shift towards integrating digital resources into the classroom. Digital tools not only make learning more engaging but also allow for a more personalized approach, accommodating the diverse needs of students. Mayer (2021) defines digital resources as tools that use multimedia, such as text, audio, video, and animations, to enhance learning experiences. These tools provide teachers with the ability to create lessons that are interactive, dynamic, and tailored to the learning styles of individual students.

Dillenbourg, Schneider, & Synteta (2002) emphasize that digital platforms, such as Nearpod, offer a range of resources that can support both teaching and collaboration. These platforms create a more interactive environment where students can engage with content in real-time, participate in quizzes, and collaborate with their peers. Additionally, digital resources allow students to access learning materials from any location, at any time, which is especially beneficial for learners with irregular schedules or those who need extra time to absorb information.

The accessibility and flexibility provided by digital resources have transformed the way vocabulary is taught. Rather than relying solely on textbooks and worksheets, teachers can now incorporate multimedia content, real-time assessments, and collaborative activities into their lessons. This shift has not only made learning more engaging but has also improved students' ability to retain and apply new vocabulary.

2.8 Nearpod: A Digital Resource for Vocabulary Enhancement

Nearpod is an interactive platform that has gained popularity in educational settings for its ability to create engaging and effective lessons. Sanmugam & Selvarajoo (2019) describes Nearpod as a versatile tool that supports a wide range of content formats, making it suitable for both in-person and remote learning environments. The platform allows teachers to design lessons that include multimedia elements such as videos, interactive slides, and quizzes, which cater to various learning styles.

One of the key features of Nearpod is its real-time assessment tools, which provide immediate feedback to both teachers and students. Worrell (2021) highlights that these assessments, including polls, quizzes, and open-ended questions, allow teachers to gauge students' understanding of new vocabulary and address any gaps in knowledge promptly. This real-time feedback is essential for ensuring that students are on track and allows teachers to adjust their lessons accordingly.

Nearpod also offers a library of customizable lessons and resources, which teachers can adapt to the specific needs of their students. Sanmugam & Selvarajoo (2019) notes that this flexibility allows for a more personalized learning experience, as teachers can modify lessons to suit the pace and learning style of each student. By catering to individual needs, Nearpod

enhances the effectiveness of vocabulary teaching and helps students retain new words more effectively.

2.9 Interactive Strategies for Vocabulary Learning Using Nearpod

One of the main advantages of Nearpod is its ability to make vocabulary learning more interactive and enjoyable for students. Atkinson (2021) points out that interactive activities, such as word games and puzzles, can transform vocabulary learning into a fun and engaging process. These activities encourage students to actively participate in the learning process, rather than passively memorizing words.

For example, Nearpod allows teachers to incorporate word searches, crossword puzzles, and matching games into their lessons. These activities not only help students learn new vocabulary but also improve their ability to recall and use the words in different contexts. By making learning more engaging, these interactive strategies help students stay motivated and interested in expanding their vocabulary.

Visual aids are another important strategy for vocabulary learning. Visual learners, in particular, benefit from seeing words associated with images or diagrams, which helps reinforce their understanding of the word's meaning. Burton (2019) notes that Nearpod allows teachers to use flashcards, graphs, and mind maps, which visually connect words with their definitions and usage. These visual aids make it easier for students to remember new words and understand their context.

Auditory techniques also play a crucial role in vocabulary acquisition. Listening to words in different contexts helps students develop a better understanding of their meanings and usage. Le Huynh Ha Van (2024) explains that incorporating songs, podcasts, and conversations into lessons

allows students to hear new vocabulary in real-life scenarios, which reinforces their comprehension. Nearpod supports the use of these auditory techniques by allowing teachers to embed audio files and videos into their lessons, providing students with diverse listening experiences.

2.10 Challenges and Considerations in Using Nearpod

Despite its many advantages, the use of Nearpod in vocabulary learning is not without challenges. One of the main issues is access and equity. Worrell (2021) notes that not all students have access to the necessary technology, such as computers or stable internet connections, which can create barriers to using Nearpod effectively. This digital divide can limit the platform's ability to reach all students, especially those in underserved communities.

Another challenge is teacher training and support. To use Nearpod effectively, teachers must be comfortable with the platform and know how to integrate it into their lessons. Without proper training, teachers may struggle to use all Nearpod's features, which could diminish the platform's effectiveness in enhancing vocabulary learning. Worrell (2021) emphasizes the need for professional development and support for teachers to ensure they can fully utilize Nearpod's potential.

Managing distractions is another concern when using digital resources in the classroom. Schmitt (2000) points out that students may become distracted by other applications or websites while using digital devices for learning. To mitigate this, teachers must establish clear guidelines and create engaging lessons that keep students focused on the content.

2.11 Effectiveness of Nearpod in Vocabulary Learning: A Comparative Analysis

Several studies have examined the effectiveness of Nearpod in enhancing student engagement and vocabulary acquisition. Burton (2019) conducted a study at Griffith University, Australia, which found that Nearpod significantly improved classroom engagement through its interactive features. The study concluded that students who used Nearpod in vocabulary lessons were more likely to retain and apply new words than those who relied solely on traditional methods.

Similarly, Hakami (2020) highlights Nearpod's adaptability to different teaching needs and learning styles. His study at the University of Louisville demonstrated that Nearpod's interactive features, such as real-time assessments and multimedia content, helped improve students' overall learning experience. Students reported feeling more motivated and engaged when using Nearpod, which contributed to better vocabulary retention.

Le Huynh Ha Van (2024) also conducted a study in Vietnam, focusing on students' perceptions of Nearpod in online English classes. The study found that Nearpod significantly improved student interaction and participation, which are critical factors in vocabulary learning. The results showed that students felt more confident using new vocabulary after engaging with Nearpod's interactive activities.

2.12 The Role of Nearpod in Vocabulary Learning

In conclusion, vocabulary learning is an essential component of mastering the English language, but traditional teaching methods often fail to engage students or promote long-term retention. Digital resources, particularly

Nearpod, offer a promising alternative by providing interactive, personalized, and engaging learning experiences. Using multimedia, real-time assessments, and customizable lessons, Nearpod helps students develop a deeper understanding of new vocabulary while catering to their individual learning styles.

Although challenges such as access to technology and teacher training remain, the benefits of using Nearpod in vocabulary instruction far outweigh the limitations. Studies have shown that students who use Nearpod are more engaged, motivated, and successful in retaining new vocabulary compared to those who rely solely on traditional methods. As technology continues to evolve, platforms like Nearpod will play an increasingly important role in enhancing language learning.

3. METHODOLOGY AND METHODS

3.1 Research Setting

The research was carried out during the 2024-2025 academic year in a public school in the city of Loja. This research sought to improve English vocabulary learning through Nearpod among students. In addition, the study responded to an action research model, involving key steps such as planning, acting, developing, and reflecting (Mertler, 2016). It should be noted that this research work employed a mixed approach, which refers to the combination of quantitative and qualitative methods within the same study to provide a more complete understanding of the research problem. Finally, the hypothetico-deductive method in scientific research and critical analysis were used to develop and test theories or hypotheses about the observed phenomena.

3.2 Research Participants

The study population consisted of 28 ninth-grade students from a high school, selected through a convenience sampling method based on their availability and accessibility. These students, aged 13 to 14 years, had an A1 level of proficiency in the English language according to the Common European Framework of Reference for Languages and faced similar challenges in learning English vocabulary. Due to their age, their legal guardians provided signed consent, authorizing the researcher to implement various classroom activities and strategies.

3.3 Research Approach and design

This research study employed a mixed-methods approach, combining quantitative and qualitative methods to achieve a comprehensive understanding of the research problem. The quantitative approach involved the systematic study of phenomena through the collection and analysis of numerical data, while the qualitative approach focused on interpreting the meaning of human experiences, behaviors, and interactions within their natural context (Creswell & Creswell, 2018). Both approaches addressed the research sub-questions. Quantitative data were collected to assess improvements in students' vocabulary learning before and after using Nearpod, while qualitative data captured students' perceptions of the tool. This combined approach strengthened the findings and enhanced the study's credibility.

3.4 Data Collection Sources and Techniques

The researcher used two techniques and instruments to collect quantitative and qualitative data in this study. At the beginning, a test technique was applied with a “pre-test, and at the end of the study a post-test as data collection instruments” (Creswell & Creswell, 2018). The pre-

test was applied to evaluate the knowledge of students in vocabulary in English before the intervention plan. In turn, the post-test was used to analyze the level of improvement in vocabulary learning in terms of form, meaning and use of words. It is important to note that the national grading scale of the Ministry of Education was used as reference of students' scores obtained in the pretest and posttest. In this sense, both tests were designed with ten multiple choice questions, where students had to select the correct answer from the options given.

The second technique employed was a survey using a questionnaire as the research instrument (Kumar, 2011). The questionnaire included five Likert's scale questions, ranging from "strongly agree" to "disagree," designed to gather students' perceptions of various activities implemented through Nearpod. These activities included "Interactive Lessons", "Real-Time Assessment Tools," and "Customizable Lessons and Resources." Additionally, an open-ended question was included after each closed-ended question to explore why students held certain perceptions regarding each activity. This allowed the researcher to gain deeper insights into the students' responses, offering a more comprehensive understanding of their views. The open-ended responses helped justify and clarify the answers to the closed-ended questions, providing context and further explanation to the quantitative data collected.

3.5 Data analysis

The quantitative data collected from the pre-test and post-test were analyzed using inferential statistics (Creswell & Creswell, 2018). This approach enabled the researcher to assess the central tendency of the grades obtained by basic high school students before and after the

implementation of the intervention plan. Additionally, the quantitative data from the questionnaire were analyzed using descriptive statistics, including frequencies and percentages, to present the students' perceptions regarding the use of Nearpod. These perceptions were related to activities such as interactive lessons, visual aids, real-time assessments, customizable lessons, and memorization activities.

Qualitative data were analyzed through thematic analysis, which allowed the researcher to validate the findings from the open-ended questions. The researcher used JAMOVİ for conducting the entire data analysis process. Using JAMOVİ, descriptive statistics were first applied to examine the distribution of the data, followed by inferential tests to determine if the observed patterns were statistically significant (Sánchez, 2023). This combination of descriptive and inferential analysis, facilitated by JAMOVİ software, allowed the researcher to draw meaningful conclusions and insights from the data.

3.6 Procedure

This study used practical action research, where the researcher implemented an intervention plan to help students at a public institution in the city of Loja improve their English vocabulary learning. According to Mertler (2016), "The action research model includes four stages: planning, acting, developing, and reflecting". In the first stage, the researcher identified the problem in English vocabulary learning, dialogued with other teachers to gather suggestions on the topic, reviewed relevant information in books and scientific journals to provide further support, and designed the methodology, detailing the study design, context and participants, methods, approaches, instruments, techniques, and data analysis procedures. It should be noted that a consent letter authorized by the

students' representatives was applied, since they were students. In the second stage, the researcher implemented the intervention plan using four Nearpod activities aimed at improving students' vocabulary learning in terms of meaning, use, and form. This process was monitored and evaluated by applying test and survey techniques with a pre-test, a post-test, and a questionnaire as data collection instruments. In the third phase, the researcher carried out an action plan to implement changes in Nearpod, which enabled future teachers to obtain better results in students' vocabulary learning. Finally, in the last stage that is results and findings, the researcher reported to the educational community and offered recommendations for future research.

4. RESULTS

Theme: Using Nearpod application on enhancing English vocabulary learning among ninth-grade students at a Public School in Loja. School year 2024-2025

Objective:

To examine the effectiveness of Nearpod as a tool for enhancing English vocabulary learning among ninth-grade students at a Public School in Loja, during the 2024-2025 school year.

Tabla 1.

Pre-test for vocabulary learning

| Vocabulary Components | N | Mean | SD | Minimum | Maximum |
|-----------------------|----|------|------|---------|---------|
| Use (4 points) | 28 | 2.38 | 0.69 | 1.25 | 3.5 |
| Meaning (3points) | 28 | 2.24 | 0.68 | 0.75 | 3 |

| | | | | | |
|---------------------------|----|------|------|------|---|
| Form (3points) | 28 | 1,72 | 0.85 | 0.50 | 3 |
| TOTAL Pretest (10 points) | 28 | 6.35 | 1.60 | 3.25 | 9 |

Table 1 presents 28 students' scores obtained in the pretest. This instrument was administered with the purpose of measuring knowledge about vocabulary factors: "use", "mining", and "form". All in all, students got less than 70% of the total mean score (6.35/10) with a standard deviation of 1.60. Unfortunately, their mean scores were low; they ranged from 3.25 to 9. The total mean score represented an issue for the teacher-researcher who decided to carry out this action research with his ninth-grade students.

From the three factors under study, "form" got the lowest mean score (1.72/3) with a standard deviation of 0.85, and the scores ranged from 0.50 to 3 points. These results show that students did not fully understand the form of the vocabulary nor were they able to use pronunciation and writing correctly, or to understand the functions of the different grammatical classes in a sentence. This makes sense, when analyzing the indicator for "mining" in which students obtained 2.24/3 (SD 0.68) in a range of 0.75 to 3 points. These results show that students did not fully understand the "meaning" of vocabulary, including its definition, connotation and use in different contexts, which is essential to express thoughts and emotions appropriately and understand language and communication.

Regarding "use", the results indicate that students obtained a little more than half of the total score (2.38/4), the standard deviation of 0.69. It is worth noting that the students' scores in "use" of vocabulary ranged between 1.25 and 3.5 points, this implies that no student achieved the highest score. These results show that students did not understand how to

use words according to context or distinguish between formal and informal situations, which is essential to construct clear and effective messages in communication.

Table 2.

Post-test for vocabulary learning

| Vocabulary Components | N | Mean | SD | Minimum | Maximum |
|-----------------------------------|-----------|-------------|-------------|----------------|----------------|
| Use (4 points) | 28 | 3.11 | 0.62 | 2 | 4 |
| Meaning (3points) | 28 | 2.66 | 0.45 | 1.5 | 3 |
| Form (3points) | 28 | 2.25 | 0.64 | 1 | 3 |
| TOTAL Posttest (10 points) | 28 | 8.02 | 1.03 | 5.5 | 9.7 |

On the other hand, Table 2 presents the same scores of the 28 students after the intervention. They were given a posttest to measure their knowledge of the vocabulary skills: “use”, “meaning” and “form”. In general, the results show that the students obtained a total average score of 8.02/10 (SD 1.03), which exceeded the average score of 7 points proposed by the researcher (scale of the Ministry of Education). It is noted that the average scores ranged between 5.5 and 9.7 points, which are higher than those achieved in the pretest.

For “form,” the mean score increased to 2.25 (SD = 0.64), with all students scoring between 1 and 3 points. This indicates that students were able to understand the structure of words, including their spelling, pronunciation, and how they are formed. The improvement in this component suggests that the Customizable Lessons delivered through Nearpod were effective in helping students understand the “form” of vocabulary.

On the other hand, “meaning” showed an increase, with a mean score of 2.66 (SD = 0.45). Students demonstrated a greater ability to understand the definition or idea that a word conveys, with scores ranging from 1.5 to 3. This improvement highlights the role of Visual Aids and Activity for Memorizing in teaching the “meaning” of English vocabulary.

Finally, “use” had the highest mean score of 3.11 (SD = 0.62), with students scoring between 2 and 4 points. This reflects that students know how and when to use a word in different contexts, thanks to activities such as Interactive Lessons and Real-Time Assessment delivered through the Nearpod app. The total posttest score increased to 8.02 out of 10 (SD = 1.3), with scores ranging from 5.5 to 9.7. This increase in total score underlines the steady improvement in students.

Table 3.

Normality test Shapiro Wilk – Pretest/Posttest for vocabulary learning

| | | Shapiro-Wilk | |
|----------|----|--------------|------|
| Tests | N | W | P |
| Pretest | 28 | 0.96 | 0.51 |
| Posttest | 28 | 0.94 | 0.15 |

Once the results of the pretest and posttest were explained, the Shapiro-Wilk test showed a normal distribution of the data for the pretest (0.51) and the posttest (0.15). Therefore, a parametric test (paired T test) was used to determine whether the difference between the pretest and posttest results was statistically significant, as shown below.

Table 4.

Paired Samples T-Test

| Comparison | | | statistic | gl | p |
|------------|----------|--------------|-----------|----|-------|
| Pretest | Posttest | T de Student | -9.09 | 27 | <.001 |

Table 4 presents the results of the Paired T-Test which compares the pretest and posttest taken by 28 participants of this study (ninth graders) to see if there is a statistically significant difference between them. The value - 9.09 reflects a large t-value that indicates a significant difference between the pretest and posttest. Similarly, the p-value < .001 is less than .001, which indicates a very strong statistical significance. In other words, there is a high probability (99%) that the intervention to improve vocabulary factors of ninth grade students was effective.

Questionnaire Results

Objective

- ~ To describe students' perceptions about the Nearpod application in acquiring English vocabulary learning.

Table 5.

Perceptions for vocabulary learning

| Indicators | Strongly agree | Agree | Disagree | Strongly disagree |
|----------------------|----------------|-------|----------|-------------------|
| Interactive Lessons | 21% | 61% | 4% | 14% |
| Visual Aids | 21% | 46% | 29% | 4% |
| Real-Time Assessment | 53% | 39% | 4% | 4% |

| | | | | |
|-------------------------|-----|-----|-----|----|
| Customizable Lessons | 14% | 40% | 39% | 7% |
| Activity For Memorizing | 18% | 49% | 29% | 4% |

The results of the post-intervention questionnaire, presented in Table 5, reveal students' perceptions of the benefits of the activities implemented through Nearpod to improve vocabulary. In the case of Interactive Lessons, 61% of students agreed that this activity was beneficial, 21% strongly agreed, 14% strongly disagreed, while the remaining 4% disagreed. This level of agreement reflects the importance of this activity to practice the use of words in different contexts (formal and informal) and everyday situations.

In the case of Visual Aids, 46% of students agreed, while 29% disagreed, 21% strongly agree, while only 4% strongly disagreed, indicating that most students recognized the value of this activity to clearly associate words with their meaning.

When asked about Real-Time Assessment, 53% of students strongly agreed, 39% agreed, 4% strongly disagreed, and the remaining 4% disagreed. This response highlights the importance of understanding correct word usage, being able to correct mistakes in real time, and improving vocabulary comprehension.

The Customizable Lessons received very positive feedback, with 40% of students "agreeing" that the activity improved their vocabulary, 39% "disagreeing," 14% "strongly agree," and 7% "strongly disagree." This result underscores the importance of these types of lessons for learning word structure.

Regarding the “Activity for Memorizing”, 49% of the students “agree”, while 29% “disagree”, on the other hand, 18% answered “strongly agree” while the remaining 4% chose the option “strongly disagree”, which indicates that the activity helped students remember the meaning of words through activities that reinforce the association of vocabulary with its definition.

Finally, the results of the questionnaire show that the activities “Real-Time Assessment” and “Interactive Lessons” received high ratings, reflecting their importance in helping students improve their vocabulary effectively. Although the proposals “Visual Aids” and “Activity for Memorizing” received slightly lower ratings, most students agreed on their importance and application. Finally, the least accepted activity was “Customizable Lessons” but despite this, it helps to improve specific aspects of vocabulary, such as spelling, phonology and morphology. Most comments highlight the success of the intervention in improving vocabulary aspects.

5. DISCUSSION

This research aimed to explore how activities through the Nearpod app could improve aspects of English vocabulary among ninth-grade students of basic general education in a public school in Ecuador. The action research design focused on addressing the central question: How effective is Nearpod in enhancing English vocabulary learning among students compared to traditional vocabulary learning methods? and the sub-question was: How do students perceive the interactive features of Nearpod as a tool for learning vocabulary?

To answer these questions, the study assessed the vocabulary skills of 28 students before and after an eight-week intervention, using pre- and post-tests graded according to an A1 rubric. In addition, a questionnaire using a rubric consistent with the Ecuadorian Ministry of Education collected students' perceptions of the activities implemented using Nearpod. Quantitative results revealed statistically positive improvements in vocabulary mastery, while qualitative data highlighted students' positive perceptions of the activities implemented through Nearpod.

The study on Nearpod, conducted by Burton (2019), concludes that this technological tool fosters a positive environment for learning vocabulary, although it does not specify the number of participants or offer quantitative data. On the other hand, the present study details the participation of 28 students and uses a post-test to assess technical vocabulary skills, showing an average improvement of 8.02/10, higher than the proposed goal of 7 points. While the Nearpod study focuses on the general usefulness of the platform, the second one provides concrete statistical evidence, which allows a more precise evaluation of the impact of the intervention.

Simpson (2024) analyzes in general how the platform can personalize content and adapt to different educational needs, concluding that it is an innovative tool for teaching English in various modalities. On the other hand, the present study focuses on the improvement in the understanding of the structure of words ("form"). This quantitative analysis shows that the average scores increased to 2.25 (SD = 0.64), evidencing that Nearpod's customizable lessons helped students to better understand vocabulary. While Ashe offers a broad view of Nearpod's potential, the second study demonstrates its practical impact in specific areas of learning.

Nguyen & Nguyen (2023) study focuses on the perceptions of 68 first-year students, showing that Nearpod improves interaction, motivation, and confidence in online English classes. On the other hand, the present study analyzes “meaning” and “use,” where students achieved average scores of 2.66 and 3.11, respectively, thanks to tools such as visual aids and interactive lessons. While the first study highlights the general impact of Nearpod on the virtual learning experience, the second provides concrete evidence of how the platform’s activities improve specific language skills.

Activities such as interactive lessons, visual aids, real-time assessments, customizable lessons, and memorization activities are essential to improving vocabulary through Nearpod. These tools allow students to actively participate in the learning process, adapting content to their individual needs and learning styles. For example, visual aids and memorization activities facilitate the understanding and retention of new terms, while real-time assessments provide immediate feedback, helping to correct errors and reinforce concepts. Additionally, customizable lessons allow teachers to design specific activities that align with learning objectives, while interactive lessons encourage student participation and engagement. This dynamic and adaptive approach makes Nearpod a powerful tool to enrich students’ vocabulary in an effective and motivating way.

One of the main limitations of the study was the absence of a control group, which makes it difficult to compare the results obtained with a group that did not receive the intervention. Having a control group would have allowed the teacher to observe not only the results, but also the process, evaluating how students receive the content and develop their skills compared to the intervention group. In addition, it would have been useful to analyze whether the benefits of Nearpod, such as motivation, active

interaction and participation, would have been maintained in a focus group where teaching was done in a traditional way, without using this tool. Furthermore, the limited time of the intervention was an important constraint, as it did not allow for the assessment of the long-term effects of using Nearpod on vocabulary learning. Furthermore, the student sample was relatively small, making it difficult to generalize the results to other educational contexts. Another limitation was the lack of detailed follow-up on how students applied the learned vocabulary in practical or communicative situations.

6. CONCLUSIONS

The use of Nearpod in this study proved to be an effective tool for improving vocabulary learning in ninth graders. The results showed significant improvement in vocabulary components, highlighting the potential of platforms such as Nearpod for teaching languages.

This study showed that students had a positive perception of Nearpod for learning English vocabulary. They highlighted the interactive lessons, visual aids, and real-time assessments as useful tools. However, some preferred traditional methods. Overall, Nearpod was seen as an effective tool for improving vocabulary.

7. AUTHORS' CONTRIBUTION

FGAG: Data collection.

JFTS: Analysis of results.

ANVL: Discussion

MRAR: Final review of the article.

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CAPÍTULO 2

THE TPR METHOD IN ENGLISH VOCABULARY TEACHING: STUDENTS' PERSPECTIVES AND EXPERIENCES

EL MÉTODO TOTAL PHYSICAL TOTAL EN LA ENSEÑANZA DEL VOCABULARIO EN INGLÉS: PERSPECTIVAS Y EXPERIENCIAS DE LOS ESTUDIANTES

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Abstract

The Total Physical Response method has been considered as a key method for students' vocabulary learning; therefore, the present research aimed to describe the Lower Secondary students' perceptions of the Total Physical Response method for developing English vocabulary learning. To achieve this purpose, the researcher employed the mixed method based on action research by applying a questionnaire to the participants. The results revealed that the students had a positive perception of Total Physical Response since they were able to actively participate with their teacher, interact with their classmates, memorize new words, feel motivated and enjoy their English classes. In that regard, it was concluded that this method provided them with a meaningful experience due to its multiple advantages.

Keywords: Efficacy; interaction; memorization; method; participation

Resumen

La Respuesta Física Total ha sido considerada como un método clave para el aprendizaje del vocabulario en los estudiantes; por ello, la presente investigación tuvo como objetivo describir las percepciones de los estudiantes de secundaria inferior respecto al método de Respuesta Física Total para el desarrollo de vocabulario en inglés. Para lograr el objetivo, la investigadora empleó el método mixto basado en una investigación-acción, aplicando un cuestionario a los participantes. Los resultados revelaron que los alumnos tuvieron una percepción positiva sobre la Respuesta Física Total puesto que pudieron participar activamente con su docente, interactuar con sus compañeros, memorizar nuevas palabras, sentirse motivados y disfrutar de sus clases de inglés. En ese sentido, se concluyó

que este método les generó una experiencia significativa por sus múltiples ventajas.

Palabras clave: Eficacia; interacción; memorización; método; participación.

1. INTRODUCTION

According to Umaralieva and Kizi (2023), vocabulary acquisition is a significant component to produce oral and written texts for effective communication. Therefore, students are expected to achieve an A1 level where they must understand, identify, and produce simple texts using basic words and expressions. Unfortunately, they do not reach the level in the vocabulary component due to the monotonous text-based teaching methods, which make students feel bored and unenthusiastic about learning.

Based on this background, Total Physical Response has been established as one of the most useful methods for teaching vocabulary. As Xie (2021) mentions "TPR can facilitate young learners' development of seven types of intelligence" (p.297). Additionally, Inciman et al. (2021) point out that TPR is an important method to increase students' motivation, participation, and interest in learning since it makes them feel comfortable during their English lessons. Together, these authors agree that Total Physical Response is effective in promoting not only enjoyable teaching strategies but also a multisensory approach that helps students remember and internalize words.

From these benefits of the Total Physical Response, the present research work was relevant for the educational community because it showed the students' perceptions about the benefits of this method to improve their English vocabulary learning through their active participation, interaction with their classmates, memorization of new words, motivation and enjoyment of the English classes. Additionally, it offered teachers interactive activities to teach new words without relying on technological resources, benefiting educational institutions with limited internet access.

In that regard, the following study aimed to describe the Lower Secondary students' perceptions of the Total Physical Response method for developing English vocabulary learning. Therefore, a specific objective was proposed which was to analyze the Lower Secondary students' perceptions of the Total Physical Response method for improving English vocabulary learning.

2. THEORETICAL FRAMEWORK

2.1 Definition of the Total Physical Response

Total Physical Response (TPR) is defined as a teaching method proposed by Dr. James Asher at the end of the 1960s that combines body movements with language learning to create an effective educational experience. According to Arsai and Arsai (2023), "TPR is based on the theory that memory is enhanced through association with physical movements" (p.392). Therefore, this strategy has been widely used by English teachers to make their classes more understandable, enjoyable, and interesting and to promote a positive learning environment within the classroom.

2.1.1 Advantages of TPR for English language teaching and learning

TPR is a useful method for language teaching because of its advantages. Firstly, it allows teachers to plan their English lessons with fun and easy activities. According to Nuraeni (2019), "Total Physical Response is fun, so many children enjoy the teaching and learning process" (p.68). This approach makes learning enjoyable and encourages students to feel more engaged and motivated to participate and interact during the instructions given by their teacher.

Secondly, TPR allows students to create a multi-sensory learning experience to recall the words and their meanings. This is supported by Mariyam and Musfiroh (2019) who state that “When the children connect the target language with the actions, they can understand the vocabulary unconsciously” (p.259). In that sense, it can be said that TPR is a helpful strategy for teaching English vocabulary as students can easily memorize new words through their physical actions and gestures.

Thirdly, TPR contributes to the low-affective filters, making students feel more motivated to participate in the activities, interact with their teacher, and learn the target language engagingly. In this vein, Fayzullaeva (2024) claims that the creation of a low affective filter through TPR allows students to reduce their anxiety and stress levels and increase their self-confidence and interest in language acquisition. Therefore, the TPR activities must be designed according to the students' age, preferences, and multiple intelligences to encourage natural learning and promote a positive atmosphere among classmates.

Furthermore, students are active and collaborative participants since they often work in groups to develop their teacher's instructions, providing them with peer assessment and feedback opportunities. In this regard, some authors have found that TPR effectively strengthens learning and interaction among classmates, thereby promoting social skills and communication (Sumarni et al., 2022). Thus, teachers should design activities that foster a cooperative environment where students can learn from each other's actions and grow together.

Finally, TPR is an inclusive teaching method for students of different ages, abilities, and learning styles, such as visual, auditory, and kinesthetic. As Saputra and Sahid (2023) mention “TPR can be used in the mixed-ability

classes. The physical actions and the picture enable all the learners to comprehend the target language effectively" (p.15). From this premise, it can be concluded that TPR promotes a multimodal learning environment where students can see, listen, read, write, and physically engage with English through interactive and enjoyable activities.

2.1.2 Teaching and Learning Activities of the Total Physical Response Method

2.1.2.1 Simon Says. One of the most popular activities in the TPR method is the game "Simon Says" in which the teacher gives instructions that students must perform through actions. As Abdurasulova and Muhitdinov (2024) point out, "Simon Says" is a classic game where the teacher gives commands preceded by "Simon Says," and students must follow only if the command includes that phrase. If the command is given without "Simon says," students should not follow it" (p.616). This means that Simon Says is not only a game for children but also an educational resource to teach the English language and contribute to the students' cognitive and emotional development.

2.1.2.2 Total Physical Response Storytelling (TPRS). It is a teaching and learning method where students acquire the language by participating in stories through actions, gestures, and dramatization. As Satriani et al. (2024) claim "This method allows students to choose the foreign language through listening, reading, visual sources, and action" (p. 94). Due to this approach, TPRS has been considered an effective activity to stimulate the students' interest, improve their reading skills, and expand their English vocabulary.

2.1.2.3 Action Songs. These refer to the combination of music with physical actions that correspond to the lyrics. According to Kumar and Sandaran (2018), this type of song allows students to act and dance while singing, ensuring a lively and dynamic learning environment. Consequently, many authors recommend using them with children and young learners to help them overcome feelings of shyness and develop their language skills, particularly in listening comprehension.

2.1.2.4 Charades. It is a classic game in the TPR method where one student acts out a word without speaking while the others try to guess what is being acted out. This is supported by Schulte (2005) who explains that:

Each group receives a card with a different term on it and must devise a movement that represents the concept. The rest of the class has to guess the term. Students must identify the similarities/differences between the movement analogy and the concept. (p.15)

Due to its dynamics, charades are a favorite game for young students, as it allows them to interact with their peers, share their ideas, actively participate, and enjoy learning while playing.

2.2. Concept of Vocabulary

The term vocabulary refers to the set of words used in a particular language that allows people to effectively communicate and interact with others on different topics or situations. According to Afini et al. (2023), "An acceptable definition of vocabulary is a collection of terms individuals use to communicate with one another in a given language" (p.112). Consequently, this component has been considered essential for developing the four basic language skills.

2.2.1 Importance of Learning English Vocabulary

Learning vocabulary is key to mastering any language for different reasons. Firstly, it enables people to convey oral and written messages using meaningful words. As Sembiring and Simajuntak (2023) mention "Vocabulary aids pupils in understanding and communicating in English" (p.213). This suggests that communication starts with vocabulary. Therefore, teachers must incorporate activities where students can acquire new words and strengthen their language skills.

Secondly, vocabulary helps students understand language and its practical use in real-life situations, improving their listening, reading, writing, and speaking skills. This is supported by Rini and Indah (2023) who point out that "Vocabulary is an important element in the development of language skills such as speaking, writing, listening, and reading, which are embodiments of the unity of feelings and thoughts" (p.24). From this concept, it can be said that a broad vocabulary in the target language will allow students to master all areas of communication.

2.2.2 Components of Vocabulary

In English, vocabulary is divided into three main components: form, meaning, and use. These elements enable people to understand and apply the language in various contexts. In that sense, Nation (2001) claims that these components include sub-aspects such as written form, spoken form, associations, grammatical functions, and collocations. Therefore, the teaching activities must be designed to foster the students' reflection on the importance of learning new words.

2.2.2.1 Form. The first component of vocabulary is the form, which covers pronunciation, spelling, and word parts. According to Nation

(2001), the form can be categorized into two types: written and spoken in which students must recognize the structure of words and their corresponding sounds through their phonological awareness.

2.2.2.1.1 Written form. It refers to the spelling of the words in a text which requires writing and reading skills to avoid making mistakes that affect the content and message.

2.2.2.1.2 Spoken form. It is associated with the pronunciations and sounds of the letters within the texts. This element is considered an important part of vocabulary because it allows people to understand oral messages during conversations.

2.2.2.2 Meaning. The second aspect is meaning which refers to the idea conveyed by a word as well as the connection between concepts through association (Kilag et al., 2023). Therefore, this component is essential for understanding texts and communicating with others

2.2.2.2.1 Association. It refers to the connection between words to give meaning to the sentence, taking into account the context where the vocabulary is being used by the speakers.

2.2.2.3 Use. The last component, known as use, is associated with the pragmatics field since it refers to how the word is used in real language for communicative purposes between people through conversations. This is supported by Nation (2001) who mentions "When communicating, whether in speech or writing, we must be careful about the words we use" (p.103). This means that words employed by the speakers must be closely related to the topic of the conversation; otherwise, the message will not be clear and understandable.

2.2.2.3.1 Grammatical functions. It refers to the role played by a word within a sentence like the subject, verbs, nouns, and objects, which helps people convey clear written and spoken messages.

2.2.2.3.2 Collocations. They consist of pairing two or more words to create a specific meaning. As Bui (2021) points out "Collocation is the way words combine in a language to produce natural-sounding speech and writing" (p.100). Consequently, mastering these collocations is critical for language learners because it will enable them to produce efficient oral and written messages.

2.2.3 Stages for Teaching Vocabulary

Teaching vocabulary is one of the most important processes in the students' learning since it provides them with the necessary tools to understand and produce the language. Based on this, the ABC model has been considered a successful resource for designing face-to-face English lessons because it includes three essential phrases: anticipation, building, and consolidation (Crawford, 2005). Together these stages help learners memorize new words, develop their language skills, actively participate, build their knowledge, and strengthen their critical thinking skills.

2.2.3.1 Anticipation. The first stage is anticipation where the teacher activates the students' previous learning and asks questions about the topic. As Crawford (2005) claims "The anticipation phase serves to call up the knowledge students already have, set purposes for learning, focus attention on the topic, and provide a context for understanding new ideas" (p.2). Therefore, this phase can include activities associated with open-ended questions, brainstorming sessions, videos, games, discussions, and predictions.

2.2.3.2 Building Knowledge. The second stage is building knowledge where the teacher introduces the vocabulary and provides all the details about the topic. Additionally, the teacher explains to students the meaning of the words with their usage and gives them practice opportunities. According to Crawford (2005), "The building knowledge phase serves to compare expectations with what is being learned, revise expectations or raise new ones, identify the main points, monitor personal thinking, and make inferences about the material" (p.3). In this stage, the teacher must be creative in teaching and include a wide variety of resources such as flashcards, videos, songs, realia, and interactive activities that make English lessons more enjoyable and interesting.

2.2.3.3 Consolidation. The last phase is consolidation where students reflect on what they have learned through different exercises and receive constructive feedback to address any mistakes. In this view, Crawford (2005) mentions that consolidation is one of the most important stages in the lesson plan since it summarizes the main ideas, allows students to share their opinions, make personal responses, assess learning, and ask additional questions. Consequently, it is suggested that English teachers incorporate activities like peer review, self-assessment, memory games, word puzzles, role-playing, and storytelling to reinforce the students' knowledge.

2.2.4 Strategies for Teaching Vocabulary

To teach vocabulary effectively, it is essential to use different strategies based on the students' levels, ages, and interests. By doing so, teachers can promote enjoyable learning experiences that engage students and enhance their vocabulary acquisition. Based on this, using visual aids like photos, flashcards, pictures, and drawings is considered an excellent resource for

illustrating the meaning of the new words and creating a positive learning environment. This is supported by Putu and Agung (2021) who claim that “flashcards are an effective strategy in education which is a visual source and approach to ensure the learning process becomes meaningful” (p.26). From this information, it is recommended that teachers implement flashcards to make their classes more engaging and interactive.

Similarly, realia are another important resource for teaching vocabulary as it provides students with concrete and tangible examples of new words. According to Cando et al. (2024), “Realia can help students connect abstract language concepts to life experiences, which can improve their understanding and retention of new vocabulary” (p.94). Therefore, it can be determined that realia are particularly beneficial for visual and kinesthetic students, allowing them to see, feel, and touch what they are learning.

2.2.5 Teaching of Vocabulary through Total Physical Response Method

Learning new words is not an easy process since this involves memorizing and understanding them. From this situation, the TPR has been proposed as an effective method for teaching vocabulary because of its multiple benefits. First, it makes English lessons funnier by integrating physical movements with language learning. Second, it enhances students' memory retention through the multi-sensory approach. Finally, it is an adaptable approach across levels and ages from young children to adult beginners (Kenjabaev, 2024). In general, the TPR is characterized by providing positive results in the learning of English vocabulary.

3. MATERIALS AND METHODS

The following research was carried out during the 2024-2025 academic period in a private institution in Loja City. This institution did not have enough technological resources like computers, projectors, and speakers for each participant; therefore, using the Total Physical Response was effective in helping students learn vocabulary through a traditional but interactive method.

The participants were students belonging to the eighth year of General Basic Education. The sample was taken from 22 students, divided into 11 males and 11 females, who were selected with the convenience method based on their availability and accessibility (Verma et al., 2024). These students were between 12 and 13 years old with an A1 level according to the Common European Framework of Reference for Languages and shared some difficulties in the English vocabulary learning process. Considering their age, their legal representatives signed a consent form to authorize the researcher to apply the different activities and strategies within the classroom (Manandhar & Kumar, 2020).

This research employed a mixed method that integrated both quantitative and qualitative data (Creswell & Creswell, 2018). Quantitative data was collected to describe students' perceptions of the benefits of the Total Physical Response method for English vocabulary learning, while qualitative data allowed participants to justify their responses. Consequently, this approach supported the findings and gave more credibility to the study.

Additionally, this study used practical action research that included four stages: Planning, acting, developing, and reflecting (Mertler, 2024). In the first stage, the researcher identified the problem in English vocabulary learning, and designed the methodology, detailing the study design, setting

and participants, methods, approaches, instruments, techniques, and data analysis procedures. In the second stage, the researcher implemented the intervention plan using four Total Physical Response activities such as Simon Says, active songs, Total Physical Response Storytelling, and charades during vocabulary teaching. This process was evaluated by applying the survey technique with a questionnaire as a data collection instrument. In the third phase, the researcher developed an action plan to implement changes to the Total Physical Response method. Finally, in the last stage, the researcher reported the results and findings to the educational community and offered recommendations for future research.

The researcher used the survey technique with a questionnaire as a data collection instrument (Kumar, 2011). The questionnaire included four multiple-choice questions using the Likert Scale from disagree to agree and one ordering question to gather information about the students' perceptions of the TPR activities such as Simon Says, TPRS, active songs, and charades for their active participation, enjoyment, memorization of words, motivation and interaction. Additionally, it involved five open-ended questions that supported the quantitative data collected by the researcher and enabled participants to justify their responses about the Total Physical Response (Kumar, 2011).

The quantitative data collected from the questionnaire were presented using frequencies and percentages as well as a bar graph to show the students' perceptions of the Total Physical Response method concerning their active participation, enjoyment, memorization of words, motivation, and interaction (Creswell, 2012). These data were illustrated through tables designed with the Excel program. On the other hand, the qualitative data obtained from the five open-ended questions were analyzed with thematic analysis (Creswell, 2012).

4. RESULTS

This section shows the results collected from the questionnaire presented in percentages and illustrated with a table and a bar graph.

4.1 Questionnaire

Objective one: To analyze the Lower Secondary students' perceptions of the Total Physical Response method for improving English vocabulary learning.

Sub question one: What are Lower Secondary students' perceptions of the Total Physical Response method for improving English vocabulary learning?

Table 1.

Students' perceptions of the benefits of the Total Physical Response method

| Students' Perceptions of the Total Physical Response | Disagree | Neither agree nor disagree | Agree |
|---|----------|----------------------------|-------|
| The Total Physical Response method allowed you to actively participate during vocabulary learning (Participation) | 5% | 25% | 75% |
| The use of the Total Physical Response method made your English lessons more enjoyable (Enjoyment) | 0% | 5% | 95% |

| | | | |
|---|-----|-----|-----|
| The Total Physical Response method helped you to interact with your classmates (Interaction) | 10% | 20% | 70% |
| The Total Physical Response method motivated you to learn vocabulary (Motivation) | 5% | 10% | 85% |

The table above presents in percentages the levels of disagreement, neutral, and agreement expressed by the participants regarding the benefits of using different activities such as action songs, charades, Simon Says, and TPR storytelling to encourage their active participation, make their English classes more enjoyable, interact with their classmates and motivate them to learn vocabulary. All in all, the majority of the students showed a positive perception of the Total Physical Response method.

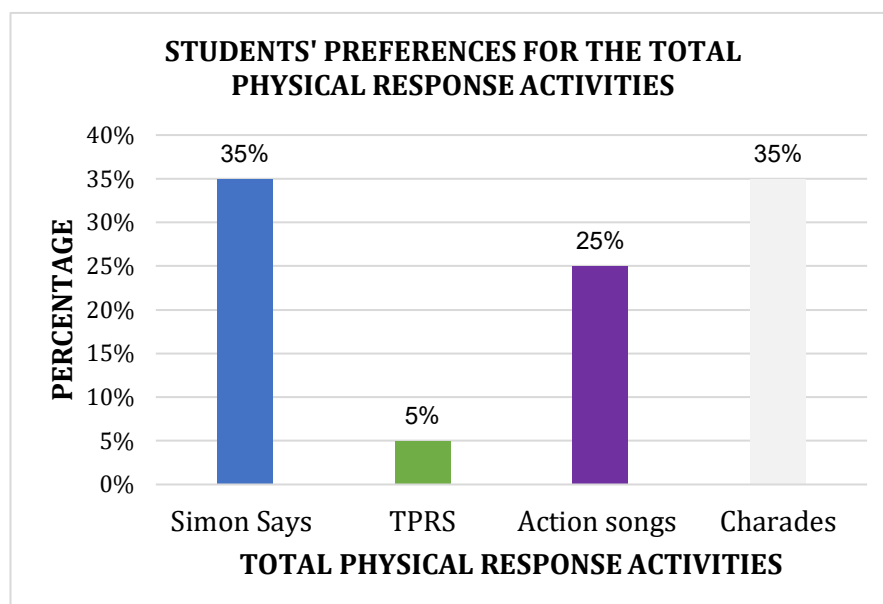
As can be seen in Table 1, 75% of the participants agreed with the use of the Total Physical Response activities to promote their active participation as they could share their opinions with the teacher and classmates while having fun. In that regard, Guerrero (personal communication, November 25, 2024) mentioned that TPR liked her because she learned actively. On the other hand, 25% of them had a neutral position since they described the games as interactive resources but too complex to follow the English instructions. Last but not least, 5% of the students disagreed with the TPR because they indicated that they did not like playing games in class due to their shyness.

In response to question 2, most of those surveyed (95%) agreed that Total Physical Response made English lessons more enjoyable as they included gestures, movements, music, stories, and songs focused on improving their vocabulary learning. This was also corroborated by Cabrera (personal communication, November 25, 2024) who stated that TPR was a new and interesting method within the classroom. Nevertheless, a small number of participants (5%) chose neither agree nor disagree option because they found the classes innovative but very traditional and monotonous.

Regarding question 3, 70% of the students agreed that the Total Physical Response method allowed them to interact with their classmates since they had to listen to their commands and understand their gestures to win the games. Instead, 20% of them neither agreed nor disagreed since they described the TPR as a funny method to learn vocabulary but also detected that not all the students worked as a team. Even Roldan (personal communication, November 25, 2024) reported that she did not talk to her classmates during the activities. By contrast, 10% of the respondents disagreed with the statement proposed by the researcher as they commented that many students were not organized and respectful, so they had problems communicating with each other.

As shown in Table 1, 85% of the respondents to question 4 agreed that the Total Physical Response method motivated them to learn new vocabulary because the lessons were more dynamic and incorporated some technological devices such as computers and speakers. Conversely, 10% had a neutral perception because they felt that vocabulary was one of the most complex parts of learning English. On the other hand, 5% of the participants disagreed, commenting that the body movements made them feel frustrated and unfocused when trying to memorize the words.

Figure 1. *Students' preferences for the Total Physical Response activities that help them to memorize words*



The bar graph above illustrates the eighth-grade students' preferences regarding different Total Physical Response activities, such as action songs, Simon Says, charades, and Total Physical Response storytelling to memorize new English vocabulary.

Figure 1 shows that 35% of the students preferred the Simon Says activity because it promoted an active body movement where they also developed their listening skills to follow the instructions given by the teacher. Similarly, the other 35% of the participants liked playing charades since the game included funny gestures that helped them interact with their classmates and have fun while guessing the correct words. In that regard, Gualpa (personal communication, November 25, 2024) pointed out that charades were an entertaining game to learn English. In contrast, 25% selected action songs, as they could sing, dance, reduce their stress, and memorize new words. However, only 3% of them opted for Total Physical

Response storytelling because it allowed them to improve their lexical range within their productive skills.

5. DISCUSSION

The following mixed research was designed to describe the Lower Secondary students' perceptions of the Total Physical Response method for developing English vocabulary learning. For this purpose, the researcher established one research sub-question.

What are Lower Secondary students' perceptions of the Total Physical Response method for improving English vocabulary learning?

From the questionnaire, the researcher found that most of the students had a positive perception of the benefits of using Total Physical Response activities to improve their vocabulary learning. For instance, the participants agreed that Total Physical Response helped them to actively participate, which is corroborated by Mariyam and Musfiroh (2019), who mention that students understand vocabulary unconsciously when they participate and connect their body movements with the target language. At the same time, the respondents expressed that Total Physical Response made their English classes more comfortable, which is validated by Nuraeni (2019), who states that Total Physical Response is fun, so many children enjoy the teaching and learning process. Furthermore, these results illustrated that the students liked the Total Physical Response because they could interact with their classmates and share their opinions during the development of the activities. This is consistent with the comments of Sumarni et al. (2022), who point out that Total Physical Response strengthens learning and interaction among classmates, thereby promoting social skills and communication. Additionally, they reported

that Total Physical Response motivated them to learn vocabulary as it combined gestures, songs, stories, and movements, which confirms the information provided by Fayzullaeva (2024), who notes that Total Physical Response allows students to reduce their anxiety and stress levels and increase their self-confidence and interest in language acquisition.

6. CONCLUSION

The present study was designed to describe the Lower Secondary students' perceptions of the Total Physical Response method for developing English vocabulary learning. According to the study, the participants showed positive perceptions of the benefits of using the Total Physical Response method to actively participate, make English lessons more enjoyable, interact with their classmates, memorize new words, and motivate them to learn vocabulary. In that regard, the results indicated that Total Physical Response activities were valuable tools for creating a positive learning environment, nurturing students' enthusiasm for learning English, and enhancing the educational field. Hence, it is suggested to apply it with realia and other innovative didactic materials.

7. CONTRIBUTION OF THE AUTHORS

J M A C: Introduction, research design, data collection, analysis of results, discussion, and conclusions.

J B V L: Final review of the article

M A H M: Final review of the article

K L G J: Final review of the article

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CAPÍTULO 3

ROLE-PLAY STRATEGY AND ENGLISH-SPEAKING SKILLS AMONG THIRD-YEAR UPPER-SECONDARY STUDENTS

ESTRATEGIA DE JUEGO DE ROLES Y DESTREZA DE HABLA INGLESA EN ESTUDIANTES DEL TERCER AÑO DE BACHILLERATO

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1. INTRODUCTION

One major goal an L2 learner has is to develop pragmatic speaking skills. These skills should be mastered through engaging and interactive methods for confidence and fluency. Role-play practice has been recognized as an innovative pedagogical approach simulating authentic events where pupils can use language in active and relevant situations. Along with increasing the development of language skills, this design cultivates collaborative creativity and confidence in students, living up to the needs of education today to turn classrooms into student-driven and student-centered learning environments.

But even though it is known to be beneficial there is still a big gap when it comes to what you see inside the classroom of an Ecuadorian. The reason of this problem is that traditionally, students do not spend time developing skills to speak English because the focus is on developing grammatical knowledge instead of communicative competence. Lack of confidence, anxiety, and lack of space to practice properly prevents students from achieving the B1 level of the Ecuadorian National Curriculum (2016), which aligns with the Common European Framework of References in Languages (CEFRL). This difference highlights the necessity of more dynamic and participatory pedagogies, such as role-play, to actively involve students in the learning process and achieve better oral language acquisition deals.

According to prior studies, it has been proved that role-play has given many contributions to the learners' speaking skills, such as fluency, confidence, and good management of real-life communicative activities (Rahayu et al., 2023; Sari & Budi, 2022). With these findings, we show how this strategy can convert classical educational spaces into thriving learning

environments. Nevertheless, whilst previous literature suggests the advantages of role-play in general, little research has been conducted that focuses on the particularities and relevance of role-play in the context of high school learners.

This research aims to fill this gap by exploring the correlation between role-play strategies and the development of speaking skills among third-year upper-secondary students in Loja, Ecuador. By focusing on this context, the study seeks to contribute to the growing body of knowledge on effective teaching methodologies, providing insights that can help educators address the specific needs of Ecuadorian students. This study is particularly relevant given Ecuador's ongoing efforts to improve English proficiency, a key factor in fostering global competitiveness and educational advancement.

The purpose of this research is to determine the relationship between role-play and students' English-speaking skills. By doing so, it aims to offer practical solutions for educators, contribute to academic discourse, and ultimately improve language learning outcomes in Ecuador.

2. THEORETICAL FRAMEWORK

The literature review of this study is organized into three primary sections: Number one is role-play strategy, number two is about English-speaking skills, and number three is the state-of-the-art. The first section delves into the concept of role-play, its benefits, role-play as active learning, its role in the teaching-learning process, its principles and components. The second section explores speaking skills, their importance in the classroom, types of speaking, how to develop this skill, and its strategies. Finally, state-of-the-art occurs in the final section, where the two variables are integrated

through previous studies of role-play and speaking skills. Most of the information was derived from research conducted in the last five years. However, it is important to mention that many older theories have been mentioned since they have made significant and interesting contributions to this field.

2.1 Role-Play

2.1.1 What is role play?

Role-play has been considered as an educational strategy that permits learners to simulate real-life conversations in controlled situations. It takes roles for learners in scenarios that demand to employ decision-making, personal skills, and critical thinking. Altun (2015) mentions that role-play (RP) involves movements or dialogues where students are part of the activities. This author also claims that implementing role-play in the EFL classroom enhances an effective learning experience. Therefore, sociodrama has derived this strategy which facilitates a thorough understanding of complex social situations that improves the learning process by using engaging experiences (Vasileiou & Paraskeva, 2010).

2.1.2 Benefits of role-play

Role-play is described as any speaking task in which any language student or learner places themselves in a role to interact with others (Westrup & Planander, 2023). Moreover, it offers several advantages in the English language learning context. It enhances students' engagement in their acquisition process, helps to promote collaboration among students, and allows to increase in the retention of knowledge to produce a meaningful and lifelong learning (Pavey & Donoghe, 2003). Additionally, it fosters discourse by letting learners the opportunity to understand situations from

other perspectives, it enhances not only the confidence to speaking but also the grammar, vocabulary, fluency, comprehension and pronunciation. Likewise, it enriches their intellect for social interactions. Furthermore, role-play can enhance their communicative skills, especially in language learning settings, where it encourages students to practice speaking in a low-pressure situation. Authors like Alzboun et al., (2017), Soto et al., (2018) mention that it helps students to get more vocabulary at the moment of interaction, they can have the control of the grammar which becomes them more fluent and less shy, and it promotes confidence since they do not feel judged by others and can improve their pronunciation. So, for this reason, from the authors' perspective they consider the following benefits for the RP. (Livingstone, 1983)

- Roleplay provides students with a funny, entertaining, and reflexive learning experience
- This strategy feeds students with more vocabulary and expressions
- It makes to feel students ready for a real conversation
- Role-play gives the opportunity to interact with prompt
- Intentionally, it promotes students' creativity with the speech, motivated to speak, and confident
- It increases the level of social interactions

2.1.3 Role-play as an active learning

As part of active learning, the role-playing strategy encourages students straightforward in their learning process, which allows them to be the center of their education. In contrast to traditional methodologies that use lecture-based instructions, there is a low improvement due to the lack of encouragement and participation (Joyce & Weil, 2000). This strategy aligns

with the theory of constructivism, which ensures that knowledge is built up through experience and reflection (Kettula & Berghall, 2013).

2.1.4 Role-play in the teaching-learning process

In the teaching-learning process, role-play is a dynamic tool to cross the gap between theory and practice. It permits learners to try the language skills in context, making a meaningful learning experience. This strategy not only fosters linguistics proficiency but also helps in the development of subskills such as teamwork and negotiation. By engaging in role-play, students can simulate real-world scenarios, facilitating a more profound understanding of the material (Bhattacharjee, 2014).

2.1.5 Principles of role-play

There are several key principles of the role-play strategy. First, clarity in subjects is essential; instructors should outline what students are expected to enrich through the activities. Secondly, adequate preparation is vital for both instructors and students to ensure a successful learning experience (Rao & Stupans, 2012). The feedback after the activity is essential to reinforce learning and address any misconceptions that arise during the role-play. According to Criollo (2018) the principles for RP are six which are described as follows:

- Learners need to know
- Self-concept of learner
- Prior experience
- Readiness to learn
- Orientation to learning
- Motivation to learn

2.1.6 Components of role-play

Role-play is made of several components: the objectives, setting, scenario, and roles. The objectives clarify the learning outcomes that are linked with the activities. The setting takes into consideration the environment where the role-play takes place. The scenario provides the context that the situation will occur while roles define the features that learners will use (House et al., 1983).

2.2 Speaking skills

2.2.1 What is speaking?

Speaking is an essential aspect of language development and refers to the action of communicating thoughts, feelings, and information using words. It involves many little parts like pronunciation, fluidity, choice of vocabulary, and even the proper formation of grammatically correct sentences. The importance of conversational fluency in building successful communication is crucial and is responsible for a lot of personal as well as professional interactions.

2.2.2 Importance of Speaking in the Classroom

Among the four language skills of reading, writing speaking, and listening, the skills of speaking play an important role in the classroom. It enables students to get hands-on practice of language, and immediate feedback and builds confidence. Interactive speaking activities promote communication between students, creating a learning communication environment (Brown, 2007). In addition, speaking skills are important for succeeding in an academic field that requires discussion, presentation, and so on.

2.2.3 Teaching speaking: Brown's theory

Brown (2007) The principles for teaching speaking according to Brown (2007) also indicate the importance of meaningful communication and contextualized practice. He also stresses the importance of activities that encourage students to use real language, like role plays, debates, and speaking. In this sense, instructors can establish an atmosphere that facilitates student interaction in the language by focusing more on communicative competence rather than mere accuracy.

2.2.4 How to develop speaking skills Types of speaking skills

Speaking skills also include different types of speaking, i.e., Interpersonal, Transactional & Public speaking. Interpersonal speaking leads to informal conversations and transactional speaking is based on the information transferred to facilitate exchanges. Public Speaking- Giving a speech to an audience. Given that each type of speaking needs various skills and strategies, it is clear how teaching speaking skills should be comprehensive (Brown, 2007).

2.2.5 Speaking strategies in the classroom.

Classroom speaking strategies; offer students real-life language opportunities, and promote collaborative tasks and scaffolding. This is a great way to make speaking engaging by creating pair work, group discussions, and role-playing activities. Moreover, the use of technology and multimedia resources can increase motivation among students and create various environments for developing speaking skills (Rao & Stupans 2012).

2.3 State-of-the-art

2.3.1 Previous studies

The incorporation of the role-playing strategy in language learning has been a vital key for research. Particularly in English language acquisition, several researchers have employed correlational designs to explore the relationship between speaking skills and role-play. This part of the theoretical framework reveals six significant studies carried out in many educational environments. They show a positive result regarding their speaking skills during their language learning process.

- Rahayu et al. (2023) The research was conducted in Indonesia and it used quantitative methods using pre-tests and post-tests to measure the students speaking performance. A positive strong relationship was determined between the role-play activities and their fluency and confidence when students spoke in speaking tasks. Researchers carried out multiple role-plays with high school students in realistic circumstances.
- Sari et al. (2022) While this research in Indonesia further addressed students' anxiety of speaking. Study design: A mixed-methods approach that included surveys and interviews. Results showed that participation in role-play significantly decreased students' speaking anxiety and they improved in oral communicative ability. Importantly, through role play, there was a supportive learning environment. The support of a working team seems pivotal to appropriate role portrayal and learning (Table S1).
- Azhar et al. (2023) This study was conducted in Pakistan and examined the effects of role-play on interactional Competence. Findings using a correlational design with structured observations

and performance assessments, the results suggest that those students participating in role-play activities were more effective speakers of English, specifically improving conversational skills and exhibiting better negotiated meaning when holding a discussion.

- Hapsari et al. (2023) An Indonesian study used qualitative methods with group discussions while testing the peer role-play interaction in dyads and small groups. Results revealed that collaborative role-play developed oral skills through peer communication and feedback, and created a community in the classroom.
- Yuliani (2022) Impact fortunes were conducted at a teacher education program in Indonesia and focused on pre-service teachers using an action research approach. Participating in role-play enhanced how the teachers taught and spoke, thus providing a head start to life after placement.
- Lestari (2023) The research focus in this study was on drama-based role play for university students within Indonesia. With a quantitative survey design, the research concluded that active participation in role-play was strongly positively correlated with overall speaking proficiency. The findings indicated that drama techniques worked very well when it comes to improving speaking abilities.

To conclude, the literature review shows the effectiveness of role-play strategies in improving English-speaking skills in second-language learners. These findings underscore the importance of integrating role-play to foster engagement, reduce anxiety, and improve significantly their speaking abilities. As language educators continue to explore innovative strategies that incorporate role-play in order to transform the way of traditional classes and promote better learning experiences.

3. MATERIALS AND METHODS

Research Setting.

The study occurred in a private upper-secondary school in Loja, Ecuador, during the 2024- 2025 academic year, where the technology is not enough for the length of the class. This physical setting provided an established educational environment where students had regular English lessons aligned with the Common European Framework of Reference for Languages (CEFRL) standards. In each English class, approximately 35 students attended, making it challenging for the teacher to assess each student's speaking skills individually. Consequently, role-play activities were integrated as an instructional strategy to foster more dynamic and interactive speaking practice among students. These activities enabled students to participate actively, allowing the teacher to observe and assess their oral language use in real-time while addressing the logistical challenges of large class sizes.

Research Participants.

The participants consisted of third-year upper-secondary students who were identified as having a B1 level of English proficiency, as defined by the CEFRL. From the larger population of students at the institution, a convenience sample of 40 students was selected to represent the target group, since the researcher is the teacher and he had the permission of the authorities and the necessary time to carried out this study. This sample was chosen to reflect typical English proficiency levels within the institution and to ensure that the students had a foundational ability to engage in conversations, express personal opinions, and participate in familiar social contexts.

Research Approach and Research Design.

This study followed a quantitative approach which to provide a comprehensive understanding of the research topic (Mills & Gay, 2012). This approach allowed for the statistical examination of speaking skills improvement, along with insights into students' perceptions of role-play activities. The research design was correlational, as described by Creswell (2012), focusing on determining the association between the use of role-play strategies and the development of English-speaking skills among students. This correlational design was descriptive, aiming to identify trends without manipulating variables, thus capturing the natural relationship between the use of role-play and speaking proficiency.

Data Collection Sources and Techniques.

Two primary techniques were employed to collect data: the testing and survey techniques. To gather quantitative data on English-speaking skills, an achievement test was administered using based on the speaking component of the First Certificate in English (FCE) exam. This test, validated by the CEFRL and adapted by the researcher according to students' knowledge divided into four parts. The parts measured grammar and vocabulary, discourse management, pronunciation, and interactive communication all of them scored by a rubric taken from the First Certificate of English (FCE) exam, which provided a reliable measure of students' speaking abilities and allowed for statistical analysis of their baseline skills (Madsen, 1983). Additionally, quantitative data were collected through a survey technique, using a structured closed-ended questionnaire of seven questions designed to capture students' perceptions of role-play activities and their impact on language skills

through Likert's scale. The questionnaire responses helped identify patterns and tendencies, adding depth to the quantitative findings.

Data Analysis.

Data analysis incorporated both descriptive and inferential statistical methods. Descriptive statistics were calculated to summarize overall trends, including measures of central tendency, procedure/test correlation, and the normality test which were generated using JAMOV software. JAMOV facilitated the organization of data into tables and graphs, enhancing the visualization and interpretation of quantitative results. Regarding to data gathered from the questionnaire was categorized using an adapted Likert scale, allowing for systematic analysis aligned with the study's objectives (Bergin, 2018).

Procedure.

The research process was organized into several stages. First, the initial planning phase involved selecting the sample and defining the role-play activities suitable for the students' proficiency level, intending to determine the correlation between the implementation of role-play activities and the improvement of students' speaking skills. In the initial planning phase, the researcher selected a sample of third-year upper-secondary students and identified role-play activities appropriate for their B1 English proficiency level, focusing on activities that encouraged spontaneous conversation and expression. Given the large class size, role-play was chosen as an effective strategy to provide ample speaking opportunities for all students while making it feasible for the teacher to observe and evaluate individual performance within group settings. Secondly, an achievement test of English-speaking skills was administered

to assess students' baseline abilities in integrating structured conversations into the students' regular language curriculum.

Finally, students completed a survey to provide quantitative feedback on their experiences with the role-play activities. Data collected were then analyzed as described, with JAMOVI aiding in statistical calculations allowing for deeper insights into students' improvements and perspectives on the role-play strategies used.

4. RESULTS

The analysis focuses on the statistical and perceptual data obtained through the study's instruments, which were carefully designed and modified for the student's performance. The goal is to determine the relationship between role-play strategies and English-speaking skills while adhering to the four-step interpretive process.

Table 1.

Normality test Shapiro Wilk – Achievement speaking test.

| | Shapiro-Wilk | | |
|--|--------------|-------|-------|
| | N | W | p |
| TOTAL | 20 | 0.871 | 0.012 |
| 1 Do you think that using role-play helped you to improve your interaction? | 20 | 0.608 | <.001 |
| 2 Did prompts help you to increase your creativity at the moment of speaking? | 20 | 0.711 | <.001 |
| 3 Do you think that role-play activity helped you to increase your confidence at using the language? | 20 | 0.580 | <.001 |

| | | | |
|--|----|-------|-------|
| 4 Do you consider effective role-play to practice during the learning process? | 20 | 0.351 | <.001 |
| 5 Do you think that using roleplay in English classes is appropriate to foster the collaboration among classmates? | 20 | 0.632 | <.001 |
| 6 Do you think that the implementation of role-play improved your pronunciation and fluency? | 20 | 0.433 | <.001 |
| 7 Through the application of role play, do you think that it helped to enhance your vocabulary and the correct use of the grammar? | 20 | 0.433 | <.001 |

The results of the Shapiro-Wilk test indicate a significant departure from normality for all variables ($p < 0.001$). These findings suggest non-normal distributions in students' responses to role-play-related questions, reflecting considerable variability in their perceptions and performance. Notably, Question 4 ("Do you consider effective role-play to practice during the learning process?") displayed the lowest W value (0.351), highlighting diverse opinions regarding the practicality of role-play. This variability might stem from individual differences in familiarity with role-play or its integration into prior learning experiences.

The overall significance ($p = 0.012$) for total scores aligns with the notion that complex, non-linear factors influence students' perspectives and performance outcomes on role-play-driven tasks. For instance, their responses suggest variability in how role-play aids different aspects of speaking, such as interaction, fluency, and confidence.

Table 2.

Correlation between the survey results and the achievement test for English-speaking skills.

| SURVEY RESULTS | ACHIEVEMENT SPEAKING TEST |
|--|------------------------------|
| | — |
| 1 Do you think that using role-play helped you to improve your interaction? | 0.679*** |
| 2 Did prompts help you to increase your creativity at the moment of speaking? | 0.536** |
| 3 Do you think that role-play activity helped you to increase your confidence at using the language? | 0.678*** |
| 4 Do you consider effective role-play to practice during the learning process? | 0.467* |
| 5 Do you think that using roleplay in English classes is appropriate to foster the collaboration among classmates? | 0.756*** |
| 6 Do you think that the implementation of role-play improved your pronunciation and fluency? | 0.625** |
| 7 Through the application of role play, do you think that it helped to enhance your vocabulary and the correct use of the grammar? | 0.601** |
| Note. H _a the correlation is positive | |

Note. * $p < .05$, ** $p < .01$, *** $p < .001$, one-tailed

The correlational analysis underscores a positive and statistically significant relationship between role-play strategies and speaking skill enhancement. Key insights include a strong correlation with the highest correlation ($r = 0.756$, $p < 0.001$) related to question 5 ("Do you think that using role-play in English classes is appropriate to foster collaboration?"). This finding aligns with role-play's capacity to encourage teamwork and interactive learning, as highlighted in the theoretical framework. Likewise, moderate correlations between Creativity and grammar use ($r = 0.536$ and $r = 0.601$, respectively) demonstrate moderate associations, signifying that while role-play is effective, its impact might be contingent upon the instructional design and prompts used. Finally, Confidence and Interaction, Questions addressing confidence ($r = 0.678$, $p < 0.001$) and interaction ($r = 0.679$, $p < 0.001$) showed strong relationships. These results emphasize the contribution of role-play to reducing speaking anxiety and fostering active participation.

Specific Objective:

- To measure students' speaking skills in English as a Foreign Language.

Table 2.

Students' performance in English-speaking skills.

| Test | N | Medium | SD | Min | Max |
|----------------------|----|--------|-------|-------|------|
| Vocabulary | 20 | 1.77 | 0.313 | 1.250 | 2.00 |
| Grammar | 20 | 1.57 | 0.430 | 0.750 | 2.00 |
| Discourse Management | 20 | 1.56 | 0.428 | 0.500 | 2.00 |

| | | | | | |
|---------------------------|----|------|-------|-------|------|
| Pronunciation | 20 | 1.86 | 0.206 | 1.500 | 2.00 |
| Interactive Communication | 20 | 1.86 | 0.263 | 1.250 | 2.00 |

Descriptive statistics reveal that students performed most strongly in pronunciation and interactive communication, both with a mean score of 1.86. These areas are critical for speaking proficiency, aligning with findings that role-play bolsters articulation and dialogue capabilities. The lowest mean was observed in grammar (1.57), indicating an area for targeted improvement. This disparity suggests that while role-play enriches fluency and interaction, structured grammar activities might be necessary to complement its effects.

Comparison with Previous Studies

The findings align with earlier research emphasizing role-play's benefits in language acquisition. For instance:

1. **Interaction and Collaboration:** As noted in the works of Azhar et al. (2023) and Hapsari et al. (2023), role-play fosters effective peer interaction and team-based learning, reflected in the high correlation for fostering collaboration ($r = 0.756$).
2. **Speaking Fluency and Confidence:** Studies by Rahayu et al. (2023) and Sari et al. (2022) highlight role-play's impact on fluency and anxiety reduction. This parallels the strong correlations observed in this study for confidence and interaction ($r = 0.678$ and $r = 0.679$).
3. **Perception and Effectiveness:** While Yuliani (2022) and Lestari (2023) affirm role-play's role in improving proficiency and creativity, the lower perception of its practical learning value in this study (Question 4) suggests cultural or pedagogical nuances.

Alternative Explanations

Variability in students' perceptions of role-play's effectiveness (e.g., Question 4's low agreement) might stem from:

- **Instructional Design:** The novelty of role-play activities for some students may have affected engagement or comprehension.
- **Assessment Familiarity:** The achievement test's alignment with CEFR criteria might not fully encapsulate gains made in informal speaking contexts.
- **Group Dynamics:** Time constraints and extracurricular activities likely influenced some participants' focus and involvement.
- **Scope and Limitations**

This study is bounded by its small sample size and specific context, limiting the generalizability of findings. Moreover, the correlational design precludes causal inferences. However, its mixed-methods approach ensures robust insights into both statistical trends and qualitative perceptions.

5. DISCUSSION

This study investigated the relationship between role-play strategies and English-speaking skills among third-year upper-secondary students. The correlational design revealed significant positive associations, emphasizing role-play's role in enhancing interaction, confidence, and speaking fluency. The research question, "What is the relationship between role-play strategies and students' English-speaking skills?" was addressed

through both statistical and perceptual data, offering comprehensive insights into this dynamic.

Comparison with Previous Studies

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2. Speaking Fluency and Confidence: Studies by Rahayu et al. (2023) and Sari et al. (2022) highlight role-play's impact on fluency and anxiety reduction. This parallels the strong correlations observed in this study for confidence and interaction ($r = 0.678$ and $r = 0.679$).

Alternative Explanations

Variability in students' perceptions of role-play's effectiveness (e.g., Question 4's low agreement) might stem from:

- Instructional Design: The novelty of role-play activities for some students may have affected engagement or comprehension.
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- Group Dynamics: Time constraints and extracurricular activities likely influenced some participants' focus and involvement.
- Scope and Limitations

This study is bounded by its small sample size and specific context, limiting the generalizability of findings. Moreover, the correlational design precludes causal inferences. However, its mixed-methods approach ensures robust insights into both statistical trends and qualitative perceptions.

6. CONCLUSIONS

- This research confirms a strong, positive relationship between role-play strategies and English-speaking skills. Key findings include role-play's significant impact on interaction, fluency, and collaboration. Nevertheless, areas like grammar and practical learning applications require complementary strategies for holistic development.
- Role-play strategies are a transformative tool for enhancing English-speaking skills, turning traditional classrooms into dynamic spaces for interaction and collaboration. This study demonstrates their effectiveness, with strong correlations to key competencies such as interaction ($r = 0.679$) and collaboration ($r = 0.756$), highlighting their role in fostering confidence-driven and engaging learning environments.
- Role-play motivates students by reducing speaking anxiety, promoting authentic communication, and encouraging creativity. Its significant impact on fluency, pronunciation, and vocabulary affirms its value, though the need for supplementary strategies to enhance grammar development remains critical for holistic progress.
- The broader implications of this research underscore its relevance beyond the classroom. For Ecuadorian students, in particular, it offers a pathway to overcoming systemic barriers in English proficiency and achieving meaningful linguistic advancement.

- Ultimately, role-play transcends being merely a teaching strategy; it is a transformative approach that empowers learners, fosters meaningful interactions, and prepares them for the challenges of an interconnected world.

7. RECOMMENDATIONS

- Enhanced Role-Play Design: Incorporate diverse scenarios and structured prompts to address grammar and creative expression.
- Teacher Training: Equip educators with tools to integrate role-play seamlessly into curricula.
- Future Research: Investigate role-play's effects across larger, more diverse samples to ensure scalability and inclusivity.

8. CONTRIBUTION OF THE AUTHORS

M.A.H.M: Introduction, Theoretical framework, Methodology, Discussion.

J.M.A.C: Results and interpretation, Conclusions and Recommendations.

O.V.L.E: Revision of the book chapter

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CAPÍTULO 4

THE IMPACT OF THE TALKPAL AI APPLICATION ON ENGLISH SPEAKING PROFICIENCY

EL IMPACTO DE LA APLICACIÓN TALKPAL AI EN EL DOMINIO DEL INGLÉS

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Abstract

This study investigates the effectiveness of Talkpal AI in improving the English-speaking skills of students at a private academy. The research evaluates changes in fluency, pronunciation, and coherence and compares the AI tool with traditional speaking exercises. A mixed-method approach was used, combining quantitative analysis of pre-test and post-test results with qualitative feedback from students. The findings indicate that students using Talkpal AI demonstrated improvements in pronunciation and vocabulary acquisition. However, statistical analysis using an unpaired t-test found no significant differences between the experimental and control groups, suggesting that both learning methods contributed to speaking proficiency. Despite some limitations, including a small sample size and short duration, the study highlights the potential of AI tools in language learning. Future research should explore long-term effects and broader applications of AI in education.

Keywords: Artificial Intelligence; English proficiency; Language learning; Talkpal AI; Educational Technology

Resumen

Este estudio investiga la eficacia de la IA Talkpal para mejorar las destrezas orales en inglés de los alumnos de una academia privada. La investigación evalúa los cambios en la fluidez, la pronunciación y la coherencia, y compara la herramienta de IA con los ejercicios tradicionales de expresión oral. Se utilizó un método mixto que combinaba el análisis cuantitativo de los resultados de las pruebas previas y posteriores con los comentarios cualitativos de los alumnos. Los resultados indican que los alumnos que utilizaron Talkpal AI mejoraron en pronunciación y adquisición de

vocabulario. Sin embargo, el análisis estadístico mediante una prueba t no emparejada no encontró diferencias significativas entre los grupos experimental y de control, lo que sugiere que ambos métodos de aprendizaje contribuyeron a la competencia oral. A pesar de algunas limitaciones, como el pequeño tamaño de la muestra y la corta duración, el estudio pone de relieve el potencial de las herramientas de IA en el aprendizaje de idiomas. Futuras investigaciones deberían explorar los efectos a largo plazo y las aplicaciones más amplias de la IA en la educación.

Palabras clave: Inteligencia artificial; Dominio del inglés; Aprendizaje de idiomas; Talkpal AI; Tecnología educativa.

1. INTRODUCTION

In recent years, advancements in artificial intelligence (AI) have significantly influenced various sectors, including education. The integration of AI-driven applications in language learning has gained increasing attention as institutions seek innovative methods to enhance student engagement and proficiency. Among these technologies, AI-powered language learning tools such as Talkpal offer a promising approach to improving English-speaking skills through personalized feedback and interactive learning experiences. As global communication relies heavily on English proficiency, the potential of AI applications to facilitate language acquisition is a subject of considerable academic interest (Hidayatullah, 2024; Fadil, 2024).

Despite the growing incorporation of AI in educational contexts, its effectiveness in fostering language acquisition remains a topic of debate. Traditional pedagogical methods continue to dominate language instruction, with many educators hesitant to integrate AI-based tools into their curricula. Studies such as “The Impact of Talkpal.AI on English Speaking Proficiency: An Academic Inquiry” (Hidayatullah, 2024) have explored the role of AI in enhancing students' English-speaking abilities, providing valuable insights into its potential benefits. Additionally, research like “Integrating Artificial Intelligence in Redesigning Self-access Center (SAC)” (Fadil, 2024) highlights how AI applications support self-directed learning, enabling students to engage with educational resources independently and improve language proficiency. These studies emphasize the importance of incorporating AI in educational strategies to create more effective and personalized learning environments.

Beyond its immediate academic implications, this research aligns with broader educational and technological objectives. The study contributes to the discourse on AI integration in education, aligning with global initiatives such as the United Nations Sustainable Development Goals, particularly in promoting quality education and lifelong learning opportunities (United Nations, 2024). By examining the application of AI in language learning, this study underscores the necessity of adapting teaching methodologies to meet the evolving needs of students and educators.

The primary objective of this research is to assess the impact of the Talkpal AI application on students' English-speaking proficiency in a private academy setting. Specifically, it compares the outcomes of students using Talkpal with those following traditional language learning methods. The study aims to answer two key questions: How does the use of Talkpal AI affect learners' proficiency in speaking skills? What are the differences in English-speaking proficiency outcomes between students receiving traditional instruction and those utilizing Talkpal AI? By addressing these questions, this research provides data-driven insights to inform educators, researchers, and policymakers on the role of AI in language education.

Theoretical Framework

The integration of AI in language learning is grounded in several theoretical perspectives. The Sociocultural Theory (Vygotsky, 1978) emphasizes the role of social interaction and mediated learning, suggesting that AI tools can serve as digital mediators that facilitate scaffolding and learner development. Constructivist learning theories (Piaget, 1952) also support the use of AI applications, as they encourage active engagement and adaptive learning environments tailored to individual needs. Additionally, Cognitive Load Theory (Sweller, 1988) highlights the benefits of AI in reducing extraneous cognitive load by providing personalized feedback and structured learning pathways. These theories provide the foundation for understanding the pedagogical effectiveness of AI-based language learning applications like Talkpal.

Technology in Language Learning

Technology has transformed language learning by enhancing accessibility, engagement, and personalization. AI-driven applications such as Duolingo and Memrise employ gamification, spaced repetition, and adaptive learning to tailor instruction to individual progress (Oliveira et al., 2023; Kholis, 2021). These tools provide real-time feedback and allow learners to practice speaking and listening skills in interactive settings. Social media platforms and virtual reality simulations further support language acquisition by facilitating authentic communication experiences. The shift from traditional methods to interactive, technology-driven learning environments underscores the importance of integrating AI into language education.

Effectiveness of AI Applications in Language Learning

AI applications in language education provide personalized and adaptive learning experiences through data-driven instruction. Platforms such as Babbel and Google Assistant employ machine learning algorithms to assess learner performance, adjust content difficulty, and deliver targeted feedback (Son et al., 2023). Virtual language tutors and conversational AI agents enable learners to engage in simulated real-world conversations, fostering immersion and increasing fluency (Ayu et al., 2021). The ability of AI to analyze speech patterns, correct pronunciation, and offer immediate feedback demonstrates its growing role in enhancing speaking proficiency.

Furthermore, AI integration in education has expanded through digital learning platforms such as Google Classroom and Microsoft Teams, which facilitate collaboration and streamline instructional delivery (Haleem et al., 2022). These platforms support personalized learning, making educational resources more accessible to diverse learners.

Talkpal AI Application

Talkpal.AI has gained recognition as an innovative AI-powered language learning tool. According to Zou et al. (2023), Talkpal provides interactive, real-life conversational experiences that simulate native speaker interactions. The application employs natural language processing and machine learning to enhance comprehension and fluency by offering real-time feedback on pronunciation and grammar. In educational settings, Talkpal enables teachers to monitor student progress, customize lesson plans, and facilitate autonomous learning experiences. Despite its

advantages, the app's limited free version may pose accessibility challenges for some learners.

Features of Talkpal Relevant to English-Speaking Proficiency

Talkpal's key features include interactive speaking exercises, personalized lesson plans, and integrated speech recognition technology (Minasyan, 2024). By simulating real-world conversations, the AI tool helps learners practice pronunciation, intonation, and fluency. The system continuously adapts to user performance, offering targeted exercises that focus on areas for improvement. Regular feedback and performance tracking further enhance speaking proficiency, creating a supportive and structured learning environment (Dikaprio et al., 2024).

English-Speaking Proficiency

English proficiency is a critical skill in globalized education and professional environments. Fitriani (2022) highlights the significance of English fluency for academic and career advancement, emphasizing the role of technology in improving language skills. AI-driven platforms enable learners to develop confidence and accuracy through immersive, interactive experiences. These tools replicate real-life conversations, promoting continuous practice and reinforcing essential linguistic competencies.

Factors Contributing to Speaking Proficiency

Speaking proficiency is influenced by fluency, accuracy, and comprehensibility. Fluency refers to the ability to communicate without hesitation, while accuracy involves the correct use of grammar and vocabulary (Marfuah et al., 2020). Comprehensibility is determined by

pronunciation clarity and coherence in speech delivery. AI-based learning applications provide structured practice to enhance these aspects, supporting language learners in achieving higher proficiency levels.

Assessment Methods in Language Proficiency Evaluations

Standardized assessments such as TOEFL and IELTS evaluate speaking proficiency based on fluency, coherence, and grammatical accuracy (Bakri, 2023). AI-driven speech assessment tools complement these evaluations by providing real-time feedback and tracking learner progress. Direct assessments, including oral interviews and structured speaking exercises, further validate AI's role in language proficiency development.

2. CONCLUSION

Recent research underscores the effectiveness of AI applications like Talkpal in improving English-speaking proficiency. Hidayatullah (2024) examines the impact of Talkpal.AI on university students, demonstrating its role in enhancing fluency and intelligibility. Similarly, Fadil (2024) highlights the integration of AI in Self-Access Centers, emphasizing its contribution to autonomous learning. These studies support the incorporation of AI in language education, providing insights into effective pedagogical strategies. This research extends previous findings by analyzing Talkpal's impact on academy students, contributing to the ongoing exploration of AI in language learning.

3. METHODOLOGY

This section explains how the study was conducted, detailing the research setting, participants, approach, data collection techniques, data analysis

procedures, and ethical considerations. The methodology is described in sufficient detail to allow other researchers to replicate the study or use it as a basis for future research. New methods and protocols are explained thoroughly, while established methods are briefly described with appropriate citations.

Research Setting

The study was conducted as a natural experiment at **English Culture House**, an English language academy located in Loja, Ecuador. The academy offers English courses for learners at various proficiency levels, including B1 (intermediate) level students, who were the focus of this research. The study took place in a classroom setting, where students were enrolled in regular English-speaking courses. The research involved two groups: a treatment group that integrated the **Talkpal AI** application into their regular learning process and a control group that continued with traditional methods of instruction. The study was conducted over one month, with both groups maintaining their regular class schedules. The experimental group had access to the Talkpal.AI application during class and at home, enabling a flexible and self-regulated learning experience. This setting allowed for a natural comparison between the two groups without disrupting their academic activities.

Research Participants

The participants in this study were four students enrolled in B1-level English courses at English Culture House, aged between 14 and 16 years. A purposive sampling technique was used to select participants who met the criteria of being enrolled in a B1-level English course and having sufficient time to participate in the study. The participants were divided into two

groups: a control group (Classroom 1) that continued with traditional classroom instruction and an experimental group (Classroom 2) that integrated the Talkpal.AI application into their learning process. The selection of participants was based on recommendations from the institution's authorities, ensuring that both groups had similar academic backgrounds and proficiency levels. This approach facilitated a meaningful comparison between the two groups, with the only difference being the use of the Talkpal.AI application.

Research Approach and Research Design/Type

The study employed a mixed-methods approach, combining quantitative and qualitative research methods. The quantitative component involved pre-test and post-test assessments to measure changes in students' speaking skills, including pronunciation, fluency, completeness, and accuracy. The qualitative component involved open-ended surveys administered to gather students' perceptions of the Talkpal.AI application and its impact on their learning. The research design was a natural experiment, where the researcher observed a naturally occurring phenomenon that divided participants into treatment and control groups based on availability and study requirements (Leatherdale, 2019). This design allowed for an exploration of the relationship between the use of artificial intelligence tools (Talkpal AI) and changes in speaking skills. The study is descriptive in nature, aiming to explain the observed outcomes.

Data Collection Sources and Techniques

Data were collected using two primary sources: oral assessments and surveys. The oral assessments were conducted before and after the intervention to measure speaking abilities, including pronunciation,

fluency, completeness, and accuracy. These assessments were evaluated using the Talkpal AI application's pronunciation tool, which provided detailed performance analysis (Minasyan, 2024). The surveys were administered after the intervention and included open-ended questions to capture students' perceptions of the application and its impact on their learning. These techniques ensured a comprehensive evaluation of both the quantitative and qualitative aspects of the study.

Data Analysis

The data were analyzed using both descriptive and inferential statistics. Descriptive statistics were used to summarize the results of the pre- and post-tests, providing an overview of participants' speaking proficiency before and after the intervention. An independent t-test was conducted to compare the performance of the experimental and control groups, assessing whether there were statistically significant differences in speaking performance (Bevans, 2023). Qualitative data from the surveys were analyzed using narrative summaries, which included key insights and notable quotes from participants. All statistical analyses were performed using Jamovi, a statistical software program that facilitated the t-test and organized the results.

4. RESULTS

This section presents the results of the study in a logical and ordered manner, providing a concrete description and interpretation of the findings. The results are divided into two main subsections: Data of the Participants and Survey Results. Tables and interpretations are included to support the findings, ensuring that data is not duplicated in the text and visuals.

Data of the Participants

Table 1 shows the list of four participants selected through purposive sampling. Their names have been kept as acronyms to maintain confidentiality, along with their respective levels. All participants were at the B1 proficiency level.

Table 1.

List of selected participants

| No | Name of the students | Level |
|----|----------------------|-------|
| 1 | Ju | B1 |
| 2 | An | B1 |
| 3 | Ca | B1 |
| 4 | Da | B1 |

Pre-test and Post-test Results

The pre-test and post-test results are summarized in **Table 2** and **Table 3**, respectively. These tables display the scores for accuracy, fluency, completeness, and overall performance for each student.

Table 2.

General scores result from the Pre-test

| Students | Accuracy | Fluency | Completeness | Overall score |
|----------|----------|---------|--------------|---------------|
| Ju | 87 | 97 | 90 | 91 |
| An | 76 | 90 | 75 | 80 |
| Ca | 81 | 96 | 81 | 86 |
| Da | 83 | 96 | 80 | 86 |

Table 3.

General scores result from Post-test

| Students | Accuracy | Fluency | Completeness | Overall score |
|----------|----------|---------|--------------|---------------|
| Ju | 92 | 99 | 92 | 94 |
| An | 81 | 90 | 82 | 84 |
| Ca | 89 | 98 | 87 | 91 |
| Da | 94 | 100 | 95 | 96 |

Analysis of Pre-test and Post-test Results

The analysis of the pre-test and post-test results reveals the following:

- **Student Ju:** Demonstrated excellent performance in the pre-test, particularly in fluency (97) and completeness (90), with an overall score of 91. In the post-test, Ju improved in accuracy (92) and fluency (99), achieving an overall score of 94.
- **Student An:** Showed good fluency (90) in the pre-test but struggled with accuracy (76) and completeness (75), resulting in an overall score of 80. In the post-test, An's accuracy and completeness improved slightly, though fluency remained the same, leading to an overall score of 84.
- **Student Ca:** Performed well in fluency (96) and completeness (81) in the pre-test, with an overall score of 86. In the post-test, Ca improved in accuracy (89) and completeness (87), achieving an overall score of 91.
- **Student Da:** Achieved strong fluency (96) and accuracy (83) in the pre-test, with an overall score of 86. In the post-test, Da showed significant improvement in accuracy (94) and completeness (95), achieving an overall score of 96.

Overall, all students demonstrated improvement from the pre-test to the post-test, with Ju and Da showing the most significant progress. However,

some students, like An, showed only moderate improvement, suggesting that while the intervention positively impacted speaking skills, the degree of improvement varied.

Comparison Between Treatment and Control Groups

| Pre-test | | |
|---------------------|-----------------------|------------|
| Group 1 (Treatment) | Group 2 (Control) | Difference |
| 86 | 91 | -5 |
| 86 | 80 | 6 |
| | | |
| Mean 86 | Mean 85.50 | 0.50 |
| SD 0.00 | SD 7.78 | |
| P value 0.9358 | | |
| T-test value 0.0909 | Degrees of freedom: 2 | |

| Post-test | | |
|-----------------------|-------------------|------------|
| Group 1 (Treatment) | Group 2 (Control) | Difference |
| 91 | 94 | -3 |
| 96 | 84 | 12 |
| | | |
| Mean 93.50 | Mean 89 | 4.50 |
| SD 3.54 | SD 7.07 | |
| P Value 0.5053 | | |
| T-test value 0.8050 | | |
| Degrees of freedom: 2 | | |

The results indicate that while the treatment group showed improvement, the control group also demonstrated gains. In the pre-test, the treatment

group had a mean score of 86, compared to the control group's mean of 85.50, with no significant difference ($p\text{-value} = 0.9358$). In the post-test, the treatment group achieved a mean score of 93.50, while the control group scored 89, resulting in a mean difference of 4.50. However, the T-test value of 0.8050 and $p\text{-value}$ of 0.5053 suggest that the difference between the groups was not statistically significant. These findings highlight that while the treatment group showed positive results, the overall analysis indicates the need for further refinement and investigation to better understand the intervention's impact.

Survey Results

The survey results provide qualitative insights into the participants' experiences with the Talkpal.AI application. Below are the key findings:

1. First Impression of Talkpal AI:

Participant 1 found the app useful for practicing speaking and learning new vocabulary.

Participant 2 described the app as original and innovative.

2. Interface Usability:

Both participants agreed that the interface was intuitive and easy to access.

3. Improvements in Speaking Skills:

Participant 1 noted that the app helped with vocabulary acquisition and pronunciation.

Participant 2 appreciated the app's ability to simulate real conversations.

4. Noticed Improvements:

Participant 1 highlighted improvements in practicing unfamiliar words and pronunciation.

Participant 2 observed better speaking skills and corrected pronunciation errors.

5. Satisfaction with Talkpal AI:

Participant 1 expressed high satisfaction, describing the app as very helpful.

Participant 2 was satisfied but suggested potential improvements in some features.

Overall, the survey results indicate that Talkpal.AI was well-received by participants, with both noting its effectiveness in improving speaking skills. However, the feedback also suggests areas for further enhancement to maximize its potential as a learning tool.

6. DISCUSSION

This section discusses the findings of the study in the context of previous research, highlighting similarities, differences, and implications. The discussion is structured to address the study's main objective—evaluating the effectiveness of the Talkpal.AI application in improving English-speaking skills compared to traditional methods—while also considering the broader implications of AI tools in language learning.

Comparison and Contrast with Previous Studies

The findings of this study align with and contribute to the growing body of research on the effectiveness of AI tools in language learning. Recent studies, such as those by Hidayatullah (2024) and Fadil (2024), have demonstrated the potential of AI applications like Talkpal AI to enhance English-speaking proficiency. Hidayatullah's research, which focused on university students, highlighted the app's ability to improve fluency and intelligibility, similar to the improvements observed in this study. The participants in our study showed notable progress in fluency and accuracy, particularly in the experimental group that used Talkpal.AI. This consistency in findings underscores the reliability of AI tools in supporting language acquisition.

Similarly, Fadil's (2024) exploration of AI-integrated Self-Access Centers (SAC) emphasized the role of AI in promoting autonomous learning, a finding echoed in our study. Participants reported that Talkpal AI was intuitive and accessible, enabling them to practice independently and at their own pace. This aligns with Fadil's conclusion that AI tools can foster self-directed learning and continuous improvement.

However, there are some differences in the outcomes of this study compared to previous research. While Hidayatullah's study reported significant improvements in fluency and intelligibility, our study found that improvements varied among participants. For instance, while students like Ju and Da showed significant progress, others like An demonstrated only moderate improvement. This variability suggests that the effectiveness of AI tools may depend on individual learning styles and engagement levels, a factor that warrants further investigation.

Additionally, the qualitative feedback from participants in this study highlighted the app's potential but also pointed to areas for improvement, such as enhancing certain features to better support learning. This contrasts with some previous studies that primarily focused on the positive outcomes of AI tools without addressing potential limitations. By incorporating both quantitative and qualitative data, this study provides a more nuanced understanding of the benefits and challenges of integrating AI into language learning.

Overall, the findings of this study are consistent with the broader literature on AI in education, reinforcing the potential of tools like Talkpal AI to enhance speaking skills. However, the variability in outcomes and the need for further refinement of AI tools suggest that future research should explore individual differences and long-term impacts to fully understand their effectiveness.

Scope and Limitations

While this study provides valuable insights into the effectiveness of Talkpal.AI, it is important to acknowledge its limitations. First, the small sample size of four participants limits the generalizability of the findings. A larger and more diverse population would provide a more comprehensive understanding of the app's impact across different contexts and proficiency levels. Additionally, a larger sample would allow for more robust statistical analysis, potentially revealing patterns that were not evident in this study.

Another limitation is the reliance on internet connectivity, which was affected by frequent power outages during the study period. Although the institution had a generator to mitigate this issue, it highlights a practical challenge in implementing AI tools in regions with unstable infrastructure.

This limitation underscores the need for offline capabilities or alternative solutions to ensure consistent access to AI-based learning tools.

The study's duration of one month, while sufficient to observe initial improvements, may not capture the long-term effects of using Talkpal.AI. Extending the study period would provide deeper insights into the sustainability of the observed improvements and the potential for continued growth in speaking proficiency.

Finally, the study focused solely on speaking skills, leaving other language skills such as listening, reading, and writing unexplored. Future research could expand the scope to examine the impact of AI tools on these areas, providing a more holistic understanding of their role in language learning.

Despite these limitations, the study offers important contributions to the field of AI in education. It highlights the potential of Talkpal AI to enhance speaking skills while also identifying areas for improvement, both in the app itself and in the design of future studies. By addressing these limitations, researchers can further refine AI tools and develop strategies to maximize their effectiveness in diverse educational contexts.

7. CONCLUSIONS

Based on the results of this study, it can be concluded that the use of Talkpal AI has shown positive effects on the English-speaking proficiency of language learners, particularly in the areas of fluency, pronunciation, and vocabulary acquisition. While all participants in the treatment group exhibited improvements in their speaking skills from the pre-test to the post-test, the degree of improvement varied between individuals. Students

such as Ju and Da demonstrated significant progress, particularly in fluency and accuracy, while others like A showed moderate improvement.

The results of the unpaired t-test showed that, although the treatment group showed an improvement in scores, there were no statistically significant differences between the treatment and control groups in the pre-post-test phases. This suggests that while Talkpal AI may offer some benefit, the observed improvements may be due to other factors, such as continued practice or support from a control group. Therefore, further research is needed to determine the specific impact of AI tools in language learning and to refine the methods for measuring their effectiveness.

The qualitative feedback from participants also provides valuable insights into the user experience with Talkpal AI. The app was perceived as accessible, intuitive, and helpful in improving both vocabulary and pronunciation. Participants expressed satisfaction with the application's ability to simulate real conversations and improve speaking skills, although one participant mentioned the potential for further feature enhancements. These perceptions align with the growing body of research suggesting that AI tools can support language learners by providing consistent, personalized practice opportunities.

Despite the promising results, the study has several limitations that should be addressed in future research. The small sample size and short duration of the study are notable limitations that may have influenced the outcomes. Additionally, external factors such as power cuts, which affect internet access for participants, must be considered when interpreting the findings. Expanding the study to include a larger population and a longer intervention period, with better access to AI features, could provide more robust conclusions.

In summary, this study suggests that Talkpal AI holds potential as a tool for improving English-speaking skills, though its full impact may require more time and a larger, more diverse group of participants to assess its effectiveness more conclusively. Further studies should explore the specific aspects of AI integration in language learning and how to optimize these tools to maximize their benefits for learners.

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LIBRO 8. TECNOLOGÍA Y ENSEÑANZA DE INGLÉS

La enseñanza del inglés enfrenta desafíos constantes en la era digital. Las estrategias pedagógicas tradicionales han dado paso a enfoques innovadores que aprovechan el potencial de la tecnología para mejorar la adquisición del lenguaje. Este libro ofrece una mirada profunda a cuatro estudios clave que exploran cómo diferentes herramientas y métodos pueden potenciar el aprendizaje del inglés:

- Using Nearpod Application on Enhancing English Vocabulary Learning among Ninth-Grade Students: Un análisis sobre el impacto de Nearpod en el aprendizaje de vocabulario en estudiantes de noveno grado.
- Students' Perceptions of the Benefits of the Total Physical Response Method in Improving English Vocabulary Learning: Un estudio sobre cómo el método Total Physical Response influye en la retención del vocabulario.
- Role-Play Strategy and English-Speaking Skills among Third-Year Upper-Secondary Students: Una exploración sobre la dramatización como estrategia para mejorar las habilidades orales en inglés.
- The Impact of the Talkpal AI Application on English Speaking Proficiency: Una evaluación del uso de la inteligencia artificial en el desarrollo de la fluidez oral.

Con un enfoque basado en la investigación y la aplicación práctica, esta obra está dirigida a docentes, investigadores y cualquier persona interesada en la intersección entre tecnología y enseñanza de idiomas. Descubre cómo estas estrategias pueden transformar el aprendizaje del inglés y abrir nuevas posibilidades en el aula.

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