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# Hearing, Tactile, Moto-Kinesthetic, and Natural Strategies to Teach English Language Vocabulary to Visually Impaired Students

Estrategias auditivas, táctiles, motor-kinestésicas y naturales para la enseñanza de vocabulario inglés a estudiantes con discapacidad visual

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## ABSTRACT

The acquisition of English is not an easy job, especially for visually impaired students, who are at a disadvantage since most of the materials and sources commonly used in current English language instruction, especially for vocabulary teaching, are sight-based (Aikin, 2009). In that sense, the present research aims to contribute to solving this problem by proposing a set of hearing, tactile, motor-kinesthetic, and natural strategies to teach English language vocabulary to visually impaired students. With this purpose in mind, the observation and pre- and post-test techniques were employed to collect data during the proposed strategies' implementation. The results obtained show that their use was highly effective in teaching basic English language vocabulary to visually impaired students of the Special Education Center "APRECIA La Paz," as it increased. Therefore, it is concluded that the proposed teaching strategies effectively meet the educational needs of visually impaired students. Thus, their implementation is recommended to other teachers.

**Keywords:** vocabulary teaching strategies, visual impairment, educational needs

## RESUMEN

La adquisición del idioma inglés no es una tarea sencilla para los estudiantes con discapacidad visual, ya que la mayoría de los materiales y recursos comúnmente utilizados para la enseñanza de su vocabulario son visuales (Aikin, 2009). La investigación de acción busca ayudar a resolver este problema proponiendo estrategias auditivas, táctiles, motor-kinestésicas y naturales para enseñar vocabulario en inglés a estudiantes con discapacidad visual. Con este propósito en mente, las técnicas de observación y pre- y posprueba se emplearon durante la implementación de las estrategias propuestas. Los resultados obtenidos muestran que su uso fue altamente efectivo para la enseñanza de vocabulario básico de inglés a estudiantes con discapacidad visual del Centro de Educación Especial "APRECIA La Paz", pues este claramente incrementó. Por lo tanto, se concluye que las estrategias propuestas satisfacen eficazmente las necesidades educativas de los estudiantes con discapacidad visual, por lo que su implementación se recomienda a otros profesores.

**Palabras clave:** estrategias de enseñanza de vocabulario, discapacidad visual, necesidades educativas

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## Introduction

Nowadays, learning English as a foreign language (EFL) has become an indispensable skill for people due to the advantages it offers to them. However, learning and acquiring it is not an easy job. On the contrary, it is considered a challenge that all students must overcome, especially those with visual impairments (Cárdenas & Inga, 2021). They are at a disadvantageous position since most of the current EFL instruction strategies, especially for vocabulary teaching, rely heavily on visual materials and sources such as photos, pictures, movies, videos, gestures, mimics, and demonstrations. In this regard, Aikin (2009) points out that these common sight-based teaching strategies lose their effectiveness and motivational impact when used with visually impaired (VI) students, as most of them are only accessed through vision, creating in this way significant educational barriers for them. Thus, developing adequate strategies to teach English language vocabulary to these students has become an indispensable task for educators since the lack of them has resulted in lots of VI students having greater difficulties than their sighted peers in acquiring and, hence, using EFL.

Therefore, the present research work was conducted with the main purpose of contributing to solving this problem by proposing a set of hearing, tactile, motor-kinesthetic, and natural strategies to teach basic English language vocabulary to Visually Impaired (VI) students. In that sense, this research is particularly relevant because it not only contributes to solving this problem. It also contributes to the limited body of work on English language teaching to VI students. This is a relatively new topic that still raises many This raises important questions and necessitates further investigation, particularly in Bolivia, where the current study was conducted.

According to the Political Constitution of Bolivia (2009), education is one of the fundamental rights of people, and as such, it has to be provided at all levels in a free and integral way without discrimination. However, people with visual impairments in the country often face significant challenges to access quality education, as most of the schools within the regular education system are full of physical and pedagogical barriers for them (Crespo, 2024). This situation is particularly evident in English language teaching, where most of the strategies commonly used for vocabulary teaching are sight-based (Aikin, 2009), resulting in few or no opportunities for these students to acquire EFL appropriately.

This issue was identified and analyzed by different teachers and researchers, such as Başaran (2012) and Nasution (2019), who agreed that developing adequate strategies to teach a foreign language to VI students was an indispensable task and a necessity in the educational field. This idea is supported by Aikin (2009), who argues that teachers must design new strategies or adapt the existing ones to the necessities of VI students who cannot, in most cases, rely on their sense of sight for learning but can learn through their other senses. Then, incorporating hearing, tactile, and motor-kinesthetic strategies in foreign language teaching provides them with meaningful and context-rich educational experiences that allow them to learn by touching, hearing, tasting, smelling, and moving. Additionally, the use of “natural strategies” is also suggested by Aikin (2009) since this type of activity facilitates students' acquisition of the target language by using it with real communicative purposes.

Consequently, the present research work focused on the proposal, implementation, and evaluation of a set of hearing, tactile, motor-kinesthetic, and natural strategies to teach English language vocabulary to VI students at the Special Education Center (SEC) of “APRECIA La Paz.” This institution was selected to conduct the study because it is one of the few in La Paz, Bolivia, that is totally focused on VI individuals. In that sense, it allowed the researcher to directly engage with the target students and analyze their specific educational needs,

characteristics, interests, and motivations regarding the acquisition of EFL, or more specifically its vocabulary, which is the most important area to focus on when teaching an L2 (Wilkins, 1972), as it is the basis to develop the listening, speaking, reading, and writing skills. Considering all the information presented above, the following question was stated: How effective is the use of hearing, tactile, motor-kinesthetic, and natural strategies to teach English vocabulary to visually impaired students of the Special Education Center “APRECIA La Paz,” 2023?

## **Theoretical Framework**

### **Visual impairments in Bolivia and the right to access education**

According to Salvin (2016), “visual impairment” is a term used to describe any kind of vision loss, encompassing both individuals who are completely blind and those with partial vision loss. By the end of 2021, Joel Moya, Director of the Bolivian National Institute of Ophthalmology, reported that there were around 120,000 blind people and 300,000 people with low vision in the country, constituting approximately 3% of the Bolivian total population. In that sense, the Bolivian government must prioritize creating appropriate and inclusive educational environments to support the natural development of these individuals, having enacted the General Law 223 in 2012 to ensure their right to access education. However, the practical implementation of this law remains inadequate because a significant number of visually impaired individuals in the country either do not access education or receive a low-quality education. This is due to the lack of knowledge and, hence, lack of appropriate teaching strategies. In conclusion, the inclusion of visually impaired students into the regular education system of the country remains a significant challenge, in which not only the Bolivian Ministry of Education but also all its stakeholders, especially teachers, have to work on since it is evident that their knowledge and training are still lacking to appropriately meet the specific educational needs of these students.

### **Educational Needs of Visually Impaired Students**

Vargas (2021) stated that visually impaired students have their own particular educational needs, just like any other students. However, they cannot base, in most cases, their learning on their sight. Thus, visual materials like lectures and non-verbal cues like body language, gestures, and mimics are inappropriate for teaching visually impaired students because these students cannot access or use them as sighted peers do due to their visual limitations (Aikin, 2009). In consequence, it is important to adapt these visual materials and non-verbal cues to the other senses of these students, especially the hearing and touching ones, which, based on authors like Aikin (2009), Guerra (2010), and Susanto and Nanda (2018), were identified as their primary learning sources. Hence, the written materials must be adapted to audio or Braille formats, and the nonverbal cues must be verbalized or described explicitly and in detail so that all the gestures, demonstrations, or actions performed in the classroom are accessible enough for anybody.

In summary, any instructional experience addressed to VI students has to be based principally on the use of their hearing and touch senses. Consequently, authors like Aikin (2009) and Guerra (2010) propose that audio, songs, real objects, and tactile flashcards are appropriate strategies to meet the specific educational needs of visually impaired (VI) students when teaching them English as a Foreign Language (EFL). In addition, they, along with Susanto and Nanda (2018), also suggest the use of oral communicative activities, games

accessible by touch, and role-playing as other useful ways to help them internalize the English language by actually using it.

## The acquisition of a foreign language

The acquisition of a foreign language is the acquisition of an L2 that is not the person's native language and is not a vital means of communication for them, as it is not a language used where they live (Eddy, 2011). In that sense, this task is not easy because most students' exposure to the target language occurs in the classroom, where they have to acquire different aspects of it, especially the lexical or vocabulary knowledge, which is the most important aspect of any language, as it is the basis to develop the four linguistic skills: listening, writing, reading, and speaking.

## Vocabulary acquisition

Vocabulary refers to all the words of a language, including single lexical items and lexical phrases such as "*Good morning*" and "*Nice to meet you,*" which have a clear formulaic usage and constitute a significant portion of a target language (Lessard-Clouston, 2021). In that sense, the acquisition of vocabulary is basically the acquisition of the target language itself. Thus, helping students with this task becomes an essential part of any language teaching course since, as Wilkins (1972) mentioned, "while without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (p. 111). In other words, students can only communicate if they have enough and appropriate vocabulary, regardless of their knowledge of grammatical structures.

According to Lessard-Clouston (2021), there are three main aspects teachers must focus on when teaching vocabulary: form, meaning, and usage. The **form** of a lexical item has to do with its pronunciation (spoken form), spelling (written form), and any word parts that make it up, such as prefixes, suffixes, and roots. The **meaning** refers to the idea or concept that comes to our minds when we listen to or read a specific word or expression. Finally, the **use** involves the grammatical functions of the word or phrase, collocations that generally go with it, and any use constraints in terms of frequency, level, and so forth (Nation, 2021). In conclusion, teaching vocabulary is not only teaching words and phrases but also teaching the form, meaning, and usage of each of them. Thus, it is a process that requires lots of time and depends highly on examining the frequency and nature of students' interactions with the target vocabulary. Consequently, the present study focused only on the receptive and productive knowledge of the spoken form of words and phrases, their primary meanings, and their general use constraints. This is considering the interests, expectations, and characteristics of the sixteen VI students of "APRECIA La Paz" that were part of this study.

## Second- or foreign-language teaching methods

Larsen-Freeman and Anderson (2011) define a teaching method as "a coherent set of links between the actions of a teacher in a classroom and the thoughts that underlie those actions" (p. 20). In this context, the actions refer to the techniques or activities employed in classes, and the thoughts refer to the theoretical foundations that guide teachers' behavior and help them plan their activities. In the same way, teaching methods reflect not only the pedagogical tendencies of the times they emerged but also the type of language proficiency learners had to attain (Richards & Rogers, 1986). In other words, the teaching methods influence not only how teachers deliver a language course but also the skills and knowledge

students are expected to attain at the end of it. Therefore, teachers need to clearly understand these methods and their guiding principles before selecting one for delivering a language course. Naturally, this selection must align with the specific educational needs and the learning goals of the target students, who in the present study were VI people.

Considering the aspects above, it was determined that the Total Physical Response and the Communicative methods are the most appropriate to address VI students because they share certain principles—the use of body movements and the five senses—and activities—games, songs, tactile materials, role-playing, and pair conversations—that authors like Aikin (2009), Susanto and Nanda (2018), and Guerra (2010) suggest to include when teaching EFL to VI students. Thus, some of their guiding principles and techniques were combined in the present study not only when designing, adapting, and proposing the teaching strategies but also at the moment of implementing them.

## Language teaching strategies

A language teaching strategy is “any specific action, behavior, or technique teachers use intentionally to improve their students’ learning, assimilation, and use of the target language” (Oxford, 1993, p. 18). These strategies are tools that are selected or designed based on various factors, including the personal characteristics of the target students, their motivations and interests, their learning styles, and the process of language learning. This includes the students’ learning styles, their proficiency levels in the language, and the language teaching methods adopted to address these factors (Gavriilidou & Psaltou-Joycey, 2010). Adhikari (2017) adds the teacher’s cognition and beliefs, contextual factors, and availability of resources as other important factors that influence strategy choice. In summary, teaching strategies have to respond to the personal characteristics, needs, interests, and motivations of the target students and the contextual and methodological factors of each specific course.

## Methodology

The survey, a data-collection technique, gathers information by directly or indirectly posing questions to the study’s units of analysis (Carrasco, 2005). In the present research, it was administered once as an interview and twice in the form of a questionnaire. The interview was carried out with APRECIA’s principal at the beginning of the study with the purpose of identifying general characteristics of the target students and the institution where the study would take place. The questionnaire was first administered at the beginning of the study to collect information about the specific educational needs, characteristics, interests, and motivations of VI students at “APRECIA La Paz” regarding the acquisition of EFL. The second administration occurred at the end of the study to obtain the students’ opinions about the implemented teaching strategies. In both instances, it was delivered via a Google Form, as it was previously determined that all target students could access and respond to it—either independently or with the assistance of screen-reader software such as TalkBack or VoiceOver, which are commonly included by default in most current mobile devices.

Observation was carried out through the observation diary instrument, which was primarily focused on registering how the proposed teaching strategies worked during instruction. The registered data was analyzed in detail at the end of each session to identify the advantages and disadvantages of the strategies applied, after which a reflective entry was added to the same diary template. Finally, all entries from the individual sessions were analyzed collectively to produce a comprehensive reflection on the effectiveness of each proposed teaching strategy. The pre- and post-tests are assessment measures applied to target students

before and after they undergo any kind of treatment as part of a research study (Budert, 2022). The purpose of this data collection is to determine the changes the dependent variable presents due to the applied treatment (Carrasco, 2005). In the present study, oral tests were administered to measure the vocabulary knowledge of target students before and after the implementation of the proposed teaching strategies. The results obtained were organized in graphics and tables that were later compared to determine the effectiveness of these strategies to teach basic English vocabulary to VI students.

Regarding the sample, it was obtained through volunteer sampling, which is a type of non-probability sampling in which individuals propose or choose themselves to participate in a study (Gómez, 2009). These students were recruited through the use of an advertisement published on the bulletin board of “APRECIA La Paz” and shared in its WhatsApp group in video format. After two weeks of promotion, sixteen volunteer students enrolled to participate in the study. These students had the following characteristics:

**Table 1.** Characteristics Of the Sample

SIXTEEN VOLUNTEER STUDENTS WITH VISUAL IMPAIRMENTS (VI)	
<b>SEX</b>	Thirteen of the volunteer students were female, and three were male.
<b>AGE</b>	Most of them were between 15 and 25 years old, which was the target population of this study, and four of them were outside this group, yet still considered in the study due to their high interest in it.
<b>VI DEGREE</b>	Ten were with low vision, and the remaining six were totally blind.
<b>VI CAUSE</b>	Ten were visually impaired since birth, while the remaining six lost their sight later in life due to sickness or other causes.
<b>OTHER DISABILITIES</b>	Thirteen of them presented only the visual impairment, yet the remaining three also had other disabilities. Two presented intellectual disability, and one presented autism spectrum disorder.
<b>BRILLE KNOWLEDGE</b>	Twelve of them knew how to read and write in Braille, and four of them did not.
<b>ABILITIES TO MANAGE TECHNOLOGY</b>	Twelve students were able to manage technological tools like cell phones or computers independently or with the assistance of a screen reader, while the remaining four students required help from another person to do so.
<b>MOTIVATION TO LEARN EFL</b>	All of them wanted to learn English due to the opportunities it can provide them. Nevertheless, they did not have much free time to include this activity in their schedules.
<b>PREVIOUS ENGLISH KNOWLEDGE</b>	Seven said they had English classes in school, but most had little knowledge of it because they rarely received materials adapted to their hearing or touch senses.
<b>INTERESTS AND EXPECTATIONS</b>	All of them showed a clear interest in developing their <b>speaking skills</b> , and fourteen of them also wanted to develop their <b>listening skills</b> to <b>communicate orally</b> with native speakers when traveling <b>abroad</b> .
<b>MEANS AND MATERIALS</b>	Most of them were primarily interested in learning English through activities like <b>games</b> and <b>conversations</b> , and preferred the use of <b>audio</b> rather than tactile <b>materials</b> .

The author obtained all the aforementioned information by administering a questionnaire to the sixteen volunteer students and conducting an interview with the principal of APRECIA. This initial data collection helped determine essential characteristics of the English course that, as aforementioned, were necessary to implement and evaluate the proposed teaching strategies. The chart below presents these characteristics.

**Table 2.** *General Characteristics of the English Course*

<b>Course length</b>	Two months (May and June of 2023)
<b>Language level</b>	Basic (A1)
<b>Content</b>	Common and daily life English language vocabulary
<b>Focus</b>	Spoken receptive ( <b>listening</b> ) and productive ( <b>speaking</b> ) forms of the vocabulary contents selected, their main meanings, and their general use constraints.
<b>Materials</b>	Principally songs and audio materials.
<b>Activities</b>	Games, pair conversations, and grammar explanations

*Source: Elaborated by the author based on the data obtained*

Once all the general characteristics mentioned above were determined, it was time to initiate the first stage of the research, denominated "planning." In this case, this stage involved primarily the proposal of appropriate strategies to teach EFL to VI students at "APRECIA La Paz."

### Vocabulary Teaching Strategies

To propose appropriate strategies to teach ELF to VI students, it was first necessary to analyze and consider all the information obtained through the questionnaire applied to the target students at the beginning of the study. As aforementioned, this questionnaire was delivered via a Google Form and included a total of eighteen open and multiple-choice questions where all the suggestions—the use of hearing and tactile materials, natural oral activities, and games—given by authors like Aikin (2009), Guerra (2010), and Susanto and Nanda (2018) were included to allow target students to choose and express how they would like to acquire EFL.

Students' responses revealed that 88% of them wanted to acquire the English language through the use of games, 81% with songs, 69% with conversations, and 38% with real objects and Braille materials. Thus, it was concluded that most target students had a clear preference for interactive activities like games and audio rather than tactile materials. Consequently, the onomatopoeias, or representative sounds, vocabulary audios, conversation audios, and songs were proposed as *hearing strategies* to respond to the target students' preferences. First, onomatopoeias, or representative sounds, were proposed to teach the main vocabulary in five of the nine lessons the course included. Second, vocabulary recordings were proposed to reinforce the acquisition of new words and phrases at home. Third, conversation audios were proposed to teach the phrases of each lesson and to verify the acquisition of previously taught vocabulary. Finally, songs were proposed to reinforce the acquisition of the spoken forms of greetings, farewells, and numbers.

As mentioned before, the four strategies above were proposed in consideration of the target students' preferences. However, the main vocabulary in four of the nine lessons of the English course included was not possible to be taught through the use of representative sounds or onomatopoeias, as in other lessons. Thus, real or representative objects, toys, and tactile flashcards were proposed as *tactile strategies* to overcome this problem and offer diversity to the target students. Likewise, games and songs were proposed as *motor-kinesthetic strategies*, considering that target students also showed a clear interest in acquiring the English language through the use of interactive activities, especially games. Consequently, games were implemented whenever possible to respond to the target students' interests. Both activities were proposed to assess and reinforce students' acquisition of new vocabulary through the use of some body movements.

Finally, role-playing, information-gap activities, oral presentations, and pair conversations were proposed as *natural strategies*, considering that the main focus of the target students was to develop their speaking and listening skills to communicate orally with other people. Thus, it was necessary to propose these activities to allow them to develop the desired skills and reinforce their vocabulary acquisition by using the learned words and phrases for more authentic communicative purposes. A total of thirteen strategies were proposed during the first stage of the present research for teaching basic English language vocabulary to the sixteen volunteer students at "APRECIA La Paz". From them, the four hearing and three tactile strategies are specific materials principally addressed to the hearing and touching senses of the target students, while the two motor-kinesthetic and the four natural strategies are activities that were designed or adapted considering their particular educational needs. All of them were focused on facilitating target students' acquisition of the selected vocabulary content through the use of their sensory systems, their body movements, or the actual use of the vocabulary taught.

## Implementation of the Proposed Strategies

The thirteen teaching strategies proposed were implemented in a two-month English course that had as its main purpose to teach VI students basic English language vocabulary that can enable them to face some basic and real-life communicative situations. During the development of it, both qualitative and quantitative data regarding the implementation of the proposed strategies were obtained from the target students through the use of observation and pre- and post-test techniques. However, four of sixteen students who started the English course quit it during its development due to the lack of time they or the person who was helping them had to arrive at classes. Thus, only the data and results obtained from the **twelve students** who finished the course will be presented in the next section.

## Data Analysis and Results

### Observation

The qualitative data for the present research were primarily obtained through the observation technique and the use of the observation diary instrument that was applied throughout the English course. Based on the experiences faced in the classroom, the following observations and conclusions were drawn: first, the use of onomatopoeias, or representative sounds, requires less time to teach new vocabulary than using tactile materials because they can convey meanings to all students simultaneously. However, in both cases, their effectiveness depends on how accurately they represent the words they aim to teach. Thus, for example, using sounds was more effective for teaching greetings and farewells than for teaching parts of

a house. Similarly, the use of objects was more effective for food and drinks than for places in the city.

Second, the vocabulary audios are highly effective for reinforcing vocabulary acquisition, as they allow students to practice the spoken forms of new words at home. In that sense, their implementation became essential in the present study, considering that VI students require, as any other student, extra self-study materials. Thus, a vocabulary booklet printed in Braille or macrotype was also provided to students to complement this material and encourage them to learn the new vocabulary in written forms on their own. Third, conversational audio and songs are effective ways to teach and reinforce vocabulary because they let students learn new words and phrases by listening to and repeating them. However, to successfully achieve their goals, they must include more vocabulary content that students already know to prevent them from simply repeating phrases without understanding them.

Fourth, the use of tactile materials like real or representative objects, toys, and tactile flashcards offers significant advantages for teaching vocabulary to VI students, as they enable them to interact directly with the meanings of the words being taught. However, their implementation requires a constant search or production effort and tends to slow down the class pace considerably, as they cannot convey words' meanings to various VI students at once. Fifth, the use of games and songs also provides great advantages to the English language teaching process. These activities enable students to show and reinforce their vocabulary acquisition in a fun and stress-free way by performing some actions or body movements. This allows teachers to clearly identify the words that students have successfully learned and those that need additional focus. Thus, their implementation played an important role in this study, as they informed instructional decisions, such as whether to proceed with the planned lessons or introduce additional activities for reinforcement.

Sixth, the use of role-playing is a beneficial strategy for reinforcing vocabulary acquisition only if target students have prior experience reading in English. This is the reason why this strategy did not work as expected in the present research, since most of the VI students were associating the spoken forms of words with their written forms for the first time during this activity. Additionally, four students did not know how to read either in Braille or the alphabetical system. Thus, the role-playing conversations were also provided in audio format to enable them to develop the activity. However, the use of these audios created a noisy environment that ended up distracting the whole class and limiting the effectiveness of this strategy.

Finally, the use of information-gap activities, oral presentations, and pair conversation practices is particularly effective for reinforcing vocabulary acquisition because they encourage students to use the learned words and phrases with real communicative purposes. In that sense, their implementation became essential in the present study, as they enabled students not only to practice the new vocabulary but also to internalize it by using it to ask for information they did not possess, give their personal information, talk about their families and their contexts, and express their preferences.

In conclusion, most of the hearing, tactile, motor-kinesthetic, and natural strategies proposed and implemented in the present study, except for role-playing, were useful and effective to teach and reinforce the acquisition of basic English language vocabulary in the twelve VI students of “APRECIA La Paz” who participated in it. This conclusion was further validated by the results obtained in the pre- and post-tests.

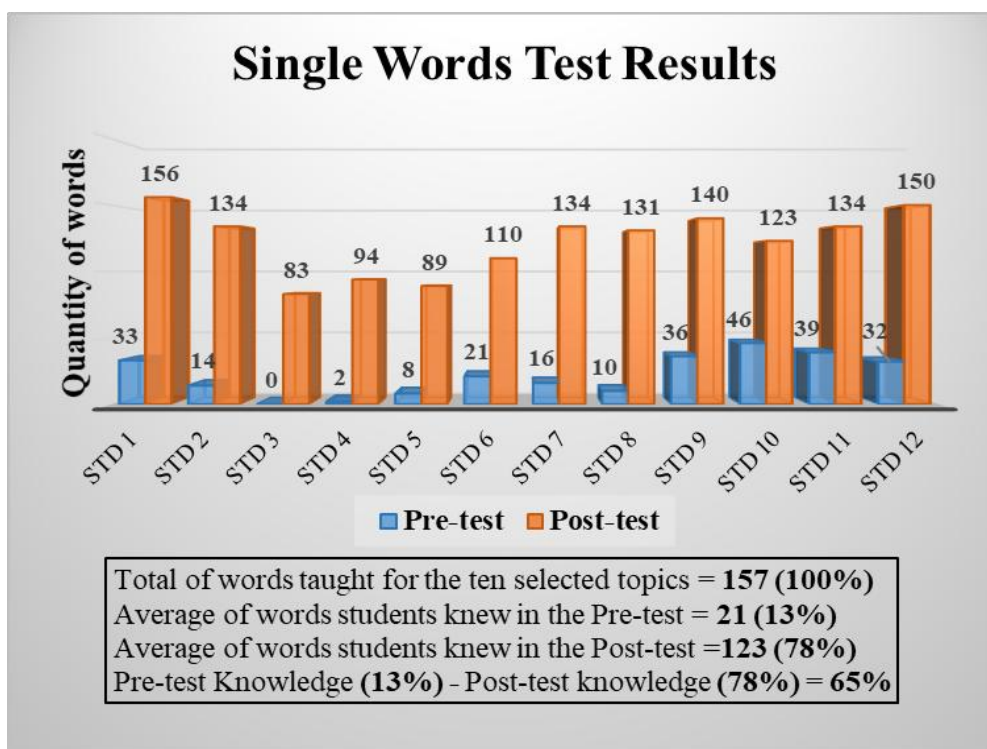
## Pre- and post-tests

As mentioned before, the pre- and post-tests were applied at the beginning and at the end of the English course, where the proposed teaching strategies were implemented. The pre- and post-tests were divided into two parts: a single-word test and a conversation test, which were administered orally, considering that speaking and listening were the language skills most volunteer students wanted to develop. The pre-test and post-test evaluated the same material taught in the English course. Thus, the results obtained through them will be presented and compared in the following paragraphs to determine how effective the implementation of proposed strategies was in teaching basic English language vocabulary to VI students.

## Single-Word Pre- and Post-Test Results

The first part of the pre- and post-tests aimed to evaluate the number of words that target students knew before and after the implementation of the proposed strategies, specifically regarding ten basic vocabulary topics taught during the English course. The ten topics evaluated were *greetings and farewells, numbers, occupations, family members, animals, parts of a house, fruits, vegetables and drinks, other food, and places in the city*. These topics were selected considering that most target students were true English language beginners at the outset of the course. Thus, this test’s questions were posed in Spanish during the pre-test and in English during the post-test. The results obtained through them were the following:

**Graphic 1.** Single-word pre- and post-test results



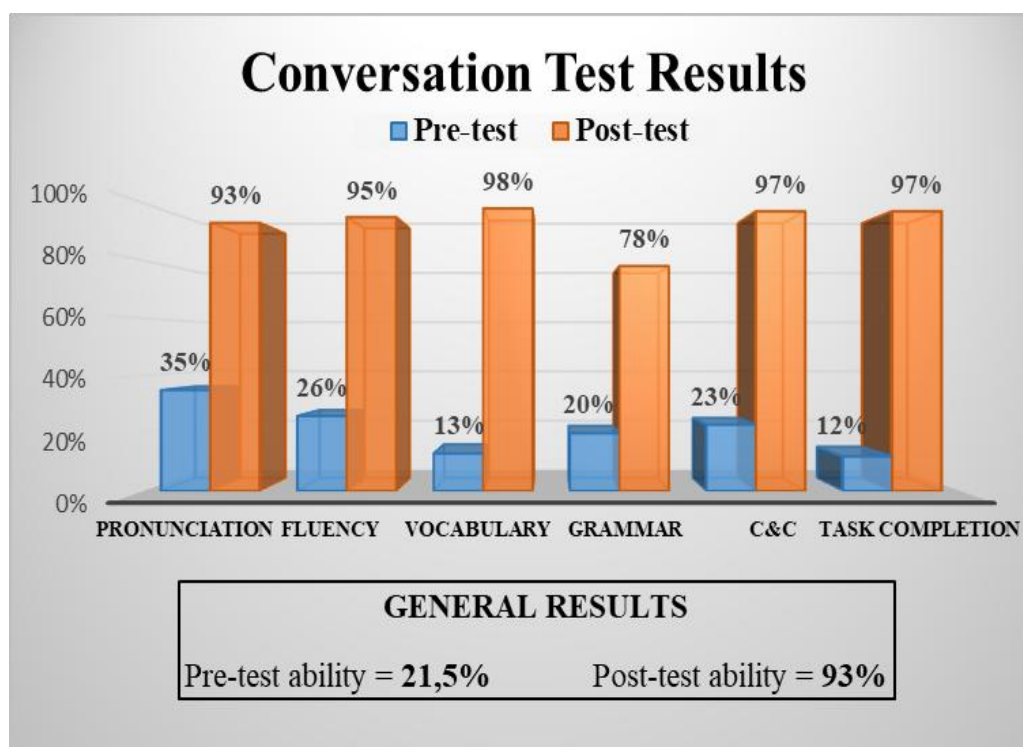
As observed in Graphic 1, target students knew an average of 21 words during the pre-test and 123 words during the post-test. Therefore, it can be concluded that the use of onomatopoeias or representative sounds, real or representative objects, toys, tactile flashcards, songs, and games increased the target students' knowledge of individual English words by an average of 65%, given that they already knew approximately 13% of the words that were later taught during the English course. Similarly, it is concluded that the mentioned strategies were,

on average, 78% effective in teaching and reinforcing the acquisition of the selected vocabulary contents, given that a total of 157 words were taught across the ten topics. This result is highly positive and encouraging, considering that vocabulary acquisition is a process that takes time and depends on the number of interactions students have with the vocabulary items they want to acquire. Finally, the data presented also indicates that most of the target students, nine out of twelve, had a satisfactory acquisition of the vocabulary contents selected since they mentioned more than 100 words across the ten evaluated topics. This means they mentioned at least 10 words per evaluated category, which was one of the learning objectives stated for most of the lessons covered during the implemented English course.

### Conversation Pre- and Post-Test Results

Similar results to the ones obtained in the first part of the pre- and post-tests were obtained in this second part, which was focused on identifying how well target students were able to understand and use some basic and common questions and phrases that can be stated regarding the ten main vocabulary topics that were taught during the English course. Thus, for example, the phrases to ask and answer for ages, occupations, family members, pets, favorite fruits, and others were evaluated in this part of the tests. In this case, the tests were administered in the form of a conversation and evaluated six aspects of students' The performance evaluation recognized that mastering phrases is more complex than simply acquiring individual words. The evaluated aspects included pronunciation, fluency in conversation, appropriate use of grammar rules, correct integration of the learned vocabulary in responses, the ability to comprehend others and to be understood (C&C), and finally, task completion, which required students to conduct a complete conversation from greeting to farewell while using the questions and phrases practiced throughout the course. The results obtained for each of these aspects were the following:

**Graphic 2.** Conversation pre-and post-test results



The results above reflect the average ability students demonstrated for each of the evaluated aspects during both pre- and post-tests. They were calculated based on the individual scores that target students obtained for them. However, it has to be noted that the pre-test scores were assigned only based on the limited questions students were able to understand and answer. Consequently, the pretest averages in the graphic do not fully represent the true proficiency level that target students had at the outset of the course.

Despite this situation, there is still a big difference between the results obtained in the pre-test and the post-test, which shows a clear increment in target students' ability on each of the evaluated aspects. Thus, it is concluded that the use of conversation audios, games, information-gap activities, oral presentations, and pair conversations had an average of 93% effectiveness in teaching or reinforcing the acquisition of basic questions and phrases that enabled target students to complete the conversation post-test with minor difficulties in fluency, pronunciation, comprehension, and comprehensibility and slightly more challenges in terms of grammar, as can be observed in Graphic 2.

## Conclusion

The present research required the development of a short English course. This course was necessary to implement and evaluate the effectiveness of the thirteen proposed teaching strategies. Based on the observations made during the course implementation, it was concluded that most of the proposed strategies, except for role-playing, were effective for teaching and reinforcing VI students' acquisition of the spoken forms, main meanings, and general uses of basic English vocabulary. This affirmation was supported by the pre- and post-test results, which revealed a clear increment of vocabulary in target students who, in their majority, were not able to mention more than two or three words per evaluated category in the pre-test but mentioned more than ten words in the post-test. Similarly, while they were unable to carry out a basic conversation during the pre-test, they successfully did it with minor issues in terms of fluency, pronunciation, comprehension, comprehensibility, and grammar during the post-test.

Additionally, the twelve VI students who were part of the present study reported, in the final questionnaire, that the implemented English course helped them acquire and expand their English language vocabulary. They identified vocabulary audios, representative sounds, audio conversations, songs, and audio summaries of the classes as the most effective materials for acquiring new vocabulary. Similarly, they highlighted the repetition of words and phrases, conversation practices, games, and translations into Spanish as the most useful activities that helped them internalize the vocabulary contents. These results align with the ideas of Aikin (2009), Guerra (2010), and Susanto and Nanda (2018), who, as mentioned in the theoretical framework, suggested the use of audio materials, spoken tasks, and games as useful strategies to help VI students acquire EFL.

In summary, the information obtained through the observation technique, the results obtained through the comparison of the pre- and post-tests, and the responses of target students to the final questionnaire indicate that, indeed, the use and combination of most of the proposed hearing, tactile, motor-kinesthetic, and natural teaching strategies were effective to teach basic English language vocabulary to the twelve VI students of the SEC "APRECIA La Paz." In other words, it can be concluded that the proposed teaching strategies effectively meet the educational needs of visually impaired students. Therefore, it is highly recommended to other teachers and researchers to implement the proposed teaching strategies in their classrooms or their future investigations to find new insights to refine and improve them. Finally, it is also suggested that other researchers conduct similar studies on this topic to discover alternative

methods for effectively meeting the educational needs of visually impaired students, thereby contributing to the ultimate goal of true educational inclusion for individuals with visual impairments.

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