

Auditory Skills in English Language Learning and the Use of Technological Devices as Strategies

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This quasi-experimental study aimed to evaluate the impact of a discovery strategy on the English listening skills of 56 tenth grade students of the Glenn Doman Educational Unit. The participants were divided into an experimental group and a control group, with 28 students in each. The standardized PET B1 level English test was used as the evaluation instrument, which assesses four language skills: listening comprehension, reading comprehension, writing and speaking. The results indicated that, after two months of implementation of the discovery strategy in the experimental group, there was a significant improvement in listening skills, with an increase from 3% to 29% in the percentage of students with a very good level. While in the control group an improvement was also observed, although less pronounced. These findings suggest that the discovery strategy is effective in improving students' English listening skills. For future studies, it would be relevant to explore the long-term impact of this strategy on students' language skills, as well as its effectiveness in different educational and cultural contexts.

Keywords: learning, technological devices, listening skills, English, Level B1

INTRODUCTION

In recent years, the importance of English language learning has become evident, especially in the educational field. Several researches have shown that English is a significant knowledge asset (Colcha et al., 2019). The spread of the English language, related to the globalization phenomenon, began decades ago and has led to its teaching and learning becoming increasingly relevant. In this process, the teacher and the student are two of the most important elements, since their correct interaction is essential to achieve the communicative objective pursued by English language learning (Beltrán, 2017).

The effectiveness of the teaching-learning process depends critically on the collaboration between both components; if either of them does not adequately fulfill its function, the expected results may not be achieved. Foreign languages, especially nowadays, is of great relevance and have become a growing trend, which highlights the importance of promoting bilingual education (López, 2020). Therefore, foreign language learning should be a priority from the most basic educational levels, and reach its highest point in higher education, where students are expected to have advanced knowledge and skills in different aspects of listening, speaking, and interpreting (Chávez et al., 2017).

The essential task of English teachers is to provide students with the opportunity to develop communicative skills that will foster their mastery of the language. However, not all activities used in the process of teaching and learning English integrate the four language skills, and sometimes focus more on the development of reading and writing comprehension, to the detriment of oral production and listening comprehension.

The learning of English is carried out through a variety of methods and techniques that allow for communicative teaching. These methods are designed to transmit knowledge and teach grammar, vocabulary, oral expression, listening comprehension, reading, and writing to improve communication skills. The teacher acts as a facilitator in the classroom and encourages students to use English as much as possible (Macias, 2017).

Teaching-learning strategies used to develop motivation should be aimed at helping students overcome obstacles in the learning process. It is vital to reinforce them to keep their attention and give meaning to the act of learning from experience and its projection into daily life. Education is the means that makes possible the development of individuals and favors their development. In the educational field, different methods are considered to favor different types of learning, depending on the theory that is considered as the foundation. The distinction between types of learning considers different processes: repetitive or rote learning and meaningful learning, either by reception or discovery (Rodas & Rodas, 2021).

According to cognitive learning theories, the educator's task is to promote meaningful learning among students, associated with higher levels of understanding information and being more resistant to forgetting, in this regard, the teacher's role is to contribute to the transformation of thinking schemes, allowing the student to acquire a set of basic competencies, such as the ability to give an opinion, participate, cooperate, criticize, create and produce intellectually (Arias & Oblitas, 2014).

Guided discovery teaching procedures entail providing students with opportunities to actively manipulate objects and transform them through direct action, as well as activities to search, explore, and analyze. These opportunities not only increase students' knowledge of the subject matter but also stimulate their curiosity and help them develop strategies for learning and discovering knowledge in other situations (Molina, 2020). Considering that there is no real understanding until the learner applies that knowledge in other situations, learning involves describing and interpreting the situation, establishing relationships between relevant factors, selecting and applying rules and methods, and constructing conclusions.

Discovery learning activities being open-ended and self-directed are inherently learner-centered, promote autonomy, and have great transfer potential as learners practice and develop routines for analyzing data that will undoubtedly be useful in their profession (Bernardini, 2016).

Autonomy and a learner-centered approach are widely recognized as valuable in second-language learning and are especially important for learners. Years of language teaching may have instilled in these students the assumption that they no longer need language skills. At the same time, this makes it difficult for teachers to identify common areas that all students in a class should work on (Sayukti, 2018). In such a sense, discovery learning is an inductive process intended to favor the perception of patterns, i.e., correlations between form and meaning in language performance or preferred ways of expressing things (Eskandari & Soleimani, 2016).

The discovery strategy is important because it helps improve listening skills by providing the ability to distinguish sounds and words more autonomously by having students decrease cognitive procedures by increasing meanings. Methods such as discovery strategies are becoming increasingly important for foreign language teaching. These methods are supported by alternative teaching strategies and the use of information and communication technologies (ICT).

In connection with the acquisition of a foreign language, several approaches advocate the globalization of learning and teaching in the community, as mentioned by Ricoy and Álvarez (2016). In this sense, we propose the inclusion of external incentives that incorporate playful elements related to daily life, as well as the use of innovative didactic resources to increase interest in the language to be acquired. Listening comprehension is considered the most important skill to develop in the EFL classroom (García & Bravo, 2017). This skill precedes oral production, reading comprehension, and writing. Listening comprehension is not limited to the perception of sounds but involves a more complex process that requires attention to aspects of speech and message comprehension (Barrientos et al., 2019).

Indeed, each person listens differently, so various sub-skills depend on the purpose or reason for which one is listening. These sub-skills include listening for the general idea, listening for specific information, listening for details, listening intensively, and listening extensively. Listening for getting a general idea refers to the ability to understand the overall meaning or message of what is being communicated. This skill is especially useful in situations where time is limited or when a quick understanding of the message is needed. Listening to specific information involves the ability to identify and extract specific pieces of information from what is being communicated (Martinez et al., 2020).

In recent years, a new approach to teaching listening comprehension known as "Discovery Listening" has emerged. This method seeks to improve listening skills by allowing students to discover and prioritize their difficulties. This method is divided into three phases: listening, reconstructing, and discovering. In the listening phase, students listen to a short-spoken text at normal speed, self-assess their level of comprehension, and take notes. In the reconstructing phase, students work in small groups and use their notes to try to reconstruct the original text together. In the discovery phase, students compare their reconstructed text with the original and rank the reasons for their errors, then evaluate the relative importance of the errors. Finally, they listen again without reading the text and evaluate their performance. The text used in Discovery Listening must be graded, as, with ungraded texts, students may be forced to make top-down contextual guesses to understand the information (Hartining Sari, 2018; Marzban & Isazadeh, 2012).

In the scope of language teaching, the use of technology has acquired great relevance in recent years, and in this context, the MALL (mobile-assisted language learning) approach to language learning stands out. MALL technology uses mobile devices such as cell phones, tablets, and PDAs to enhance language learning, and in particular, second language reading comprehension. In the study performed by Li (2022), on the effectiveness of MALL, he found that the use of MALL applications in EFL/ESL reading comprehension is more effective than traditional methods.

The Cambridge PET test is an English-level test that evaluates language skills in reading, writing, listening, and speaking. It is used worldwide as a way of demonstrating English communication skills in academic and professional contexts. According to the University of Cambridge (2021), the PET (Preliminary English Test) evaluates level B1 of the Common European Framework of Reference for Languages (CEFR), which refers to an independent language user. The test consists of four parts and lasts approximately 2 hours and 30 minutes. The reading portion consists of six texts, while the writing portion includes two tasks that assess the ability to write letters, e-mails, messages, and other types of communication in English.

In the listening comprehension section, students listen to a variety of recordings and answer questions based on what they listen to. Finally, the speaking section consists of two parts: an individual interview and a paired task (Mohammed et al., 2023). For improving English writing skills and preparing for the international PET test, students must select and organize text content coherently and cohesively, using language that is effective for their target audience (Narvaez et al., 2019). In addition, teachers must receive training in the area of teaching to improve student motivation and learning. Educational programs should have content appropriate to the interests of students to improve their learning (Solórzano, 2010).

In the study conducted by Göksu and Elkiliç (2012), it was shown that the implementation of the Common European Framework of Reference for Languages (CEFR) and the European Language Portfolio (ELP) can significantly contribute to students' success in the PET test of students learning English as a

foreign language. In addition, the importance of teaching students at their level of competence and the use of appropriate learning materials was emphasized.

METHODOLOGY

In this study, a quantitative approach was implemented to process the data collected, through the application of numerical and statistical techniques. A correlational type of research was used, in which a pre-test and a post-test were carried out to compare the data obtained. Furthermore, a quasi-experimental design was used to determine whether the discovery strategy has an impact on students' listening skills.

The target population of this study consisted of 56 students from the tenth year of basic education at the Glenn Doman Educational Unit. Participants were selected by non-probabilistic convenience sampling, and subsequently, two groups were created with an equal number of participants (28 in each group): a control group and an experimental group.

To measure the level of listening comprehension in the students of both groups, the standardized PET test level B1 of English was used as an evaluation instrument. This test focuses on the evaluation of four skills: oral comprehension, reading comprehension, written expression, and oral expression. After applying the test, the discovery strategy was implemented two days a week for a period of two months in the experimental group, while the control group continued with the traditional method.

Finally, the PET test was applied again to both groups after two months to measure progress. The data obtained were processed through the SPSS version 25 statistical program and the Wilcoxon test was applied to compare the results of the initial and final tests in both groups. It should be noted that it was not necessary to apply a multivariate normality test to the data, since a p-value of less than 0.05 was obtained.

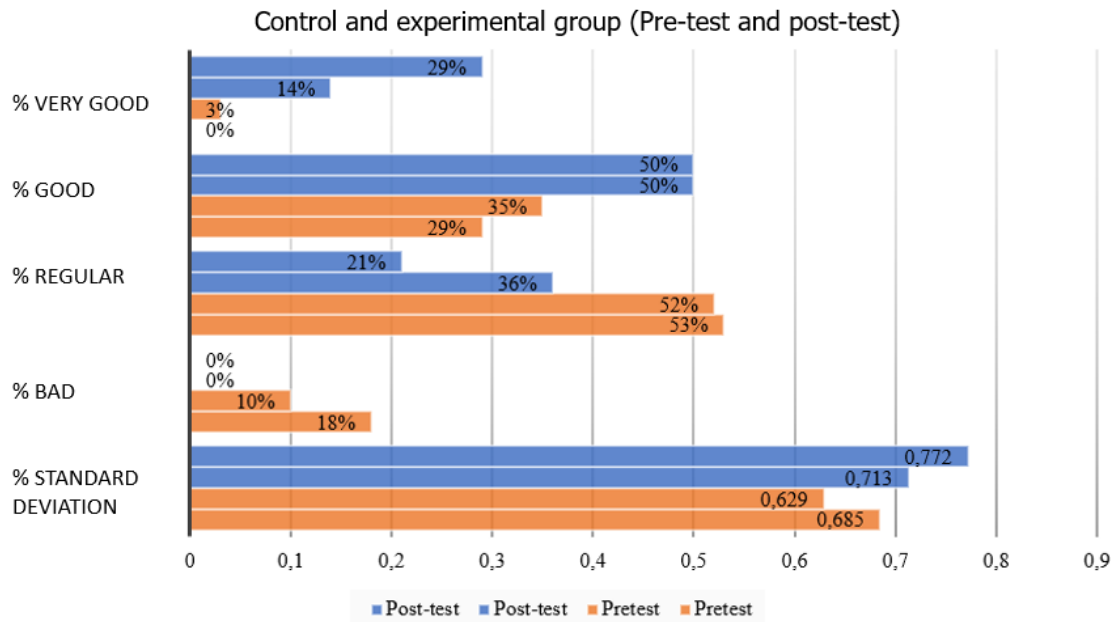
RESULTS

TABLE 1
CONTROL AND EXPERIMENTAL GROUP

Group	Test	N	Mean	Standard deviation	Minimum	Maximum	% Bad	% Regular	% Good	% Very good
Control	Pre-test	28	2.11	0.685	1	3	18%	53%	29%	0%
Experimental	Pre-test	28	2.11	0.629	1	3	10%	52%	35%	3%
Control	Post-test	28	2,29	0.713	1	4	0%	36%	50%	14%
Experimental	Post-test	28	3.18	0.772	2	5	0%	21%	50%	29%

Note. Prepared by the author

FIGURE 1
PRE-TEST AND POST-TEST



Note. Prepared by the author

The results obtained between the experimental group and the control group showed the effect that the application of the strategy had on the students and their listening skills. By the results of the *PET test*, the students in the control group had an initial performance considered regular in 53% of the students, 29% had a good performance and 18% had a bad performance, understanding that the pre-test had a standard deviation of 0.685. After the application of the discovery strategy, a reduction of students with low performance to 14% and a clear increase to 61% of students with regular performance was noted, evidencing that the standard deviation of the post-test was 0.713.

In the case of the experimental group, it was identified that 52% of the students obtained a regular level of the listening skill in the initial *PET test*, on the other hand, 35% maintained a good level of performance, 10% had a bad level and finally, 3% maintained a very good level, obtaining a standard deviation of 0.629 in the pre-test. After the application of the discovery strategy, the level of performance improved considerably in all students, because 50% passed from a regular level to a good level, the very good level had increased from 3% to 29% and 3% maintained an excellent level. In this regard, the standard deviation of the post-test increased to 0.772.

TABLE 2
CONTROL AND EXPERIMENTAL STATISTICS (PRE-TEST AND POST-TEST) AND
CORRELATION BETWEEN BOTH GROUPS

		Ranks		
		N	Average rank	Sum of ranks
Control group (post-Pre-test)	Negative ranks	0 ^a	0	0
	Positive ranks	5 ^b	3	15
	Draws	23 ^c		
	Total	28		
The experimental group (post-Pre-test)	Negative ranks	0 ^d	0	0
	Positive ranks	27 ^e	14	378
	Draws	1 ^f		
	Total	28		
Groups	Test	Sample size	Z value	Asymptotic significance (bilateral)
Control	Post-test	28	-2.236	0.025
Experimental	Post-test	28	-4.973	0.000

Note. Specifications (a. post-control group < pre-test control group; b. post-control group > pre-test control group; c. post-control group = pre-test control group; d. post-experimental group < pre-test experimental group; e. post-experimental group > pre-test experimental group; f. post-experimental group = pre-test experimental group) Source: Prepared by the author

The results show that both the control group and the experimental group presented a significant improvement in their listening skills in the post-test phase compared to the pre-test phase. However, the experimental group showed significantly greater improvement in their listening skills compared to the control group. Statistical analyses using the Wilcoxon test showed that the control group presented a significant improvement in listening skills between the pre-test and post-test phases, with a bilateral significance level of 0.025. In contrast, the experimental group presented an even greater improvement in their listening skills in the post-test phase, with a bilateral significance level of 0.000. In addition, when comparing the average ranks and the sums of the ranks in both phases, it was observed that the experimental group presented a more marked improvement in their listening skills in the post-test phase compared to the control group.

CONCLUSIONS

It was determined that the use of the strategy favors the development of listening skills, which was evidenced by a considerable improvement in the students who were part of the research and applied the discovery strategy, demonstrating the effect that the strategy has on learning. Therefore, it is confirmed that the application of the discovery strategy does favor the improvement of listening skills. After the strategy was applied, an improvement in the ability to recognize words, phrases, and short texts directly or through

the context being handled was evidenced, which is in agreement with (Yao-Ping et al., 2023) who state that M-learning systems should create useful learning features for users, such as learning guides, adaptive assessments, and monitoring and recording of learning progress. They should also design content appropriate to the cognitive abilities and needs of users to enhance learning effectiveness.

Listening skills in English language learning are known to be a constant and active process, in which the listener applies both linguistic and contextual knowledge to understand the message to be communicated. In this regard, the learning process is supported by the use of engaging and dynamic strategies such as discovery strategies. When working with the implementation of these strategies, students improved their listening skills achieving as a consequence the development of other skills such as receptive and productive skills, therefore Hassan et al. (2017), designed an intervention model using freely available technological resources, suggested that these interventions can help students learn English as a foreign language vocabulary and thereby facilitate reading comprehension.

Although technology has been a significant contributor to the evolution of teaching-learning methods, learning English exclusively through technological devices can have limitations. Applications cannot provide personalized feedback or adapt to individual student needs. Furthermore, they cannot provide adequate practice in critical skills such as oral interaction and listening comprehension. Therefore, it is recommended that teachers implement active learning strategies focused on improving these skills. It would be beneficial to conduct future studies in which the discovery strategy is applied to the four main skills to improve the effectiveness of teaching-learning methods and provide higher-quality education.

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