

**EXPLORANDO EL IMPACTO DE LAS ESTRATEGIAS DE TOMA DE NOTAS EN EL
DESARROLLO DE LAS HABILIDADES DE ESCUCHA EN ESTUDIANTES DE INGLÉS
COMO LENGUA EXTRANJERA**

**EXPLORING THE IMPACT OF NOTE-TAKING STRATEGIES ON THE DEVELOPMENT
OF LISTENING SKILLS IN EFL LEARNERS**

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Resumen

Esta investigación aborda el impacto de las estrategias de toma de notas en el desarrollo de las habilidades de escucha en estudiantes de inglés como lengua extranjera (EFL). El objetivo principal de la investigación fue conocer cómo la implementación de estas estrategias puede influir en la habilidad de escucha (listening). El estudio tiene un enfoque mixto, los estudiantes de niveles A1 y A2 de la universidad Yachay fueron divididos aleatoriamente en grupo experimental y grupo de control. Se tomó un examen de diagnóstico a los dos grupos para medir la habilidad de escucha, luego se capacitó al grupo experimental en estrategias de toma de notas (Cornell notes, outline notes, mind maps, Split-paged method). Se tomó un test final a los dos grupos con el fin de analizar las diferencias en los resultados. Finalmente, se aplicó una encuesta sobre el uso de las estrategias de toma de notas a los estudiantes del grupo experimental. Los resultados indican que, después de la capacitación en estrategia de toma de notas, el grupo experimental presentó una mejora significativa en sus habilidades de escucha en comparación con el grupo de control, con un aumento notable en la media de las notas obtenidas. Además, las encuestas muestran la aceptación por parte de los

estudiantes de las estrategias de toma de notas, también indicaron una mayor confianza y participación de los estudiantes en el aula. La investigación demuestra que las estrategias de toma de notas son efectivas para mejorar las habilidades de escucha en estudiantes de EFL, recomendándose su inclusión en los programas de enseñanza para potenciar el aprendizaje del idioma.

Palabras clave: **Estrategias de toma de notas, Escucha, Inglés, Aprendizaje, Rendimiento.**

Abstract

This research addresses the impact of note-taking strategies on the development of listening skills in EFL learners. The main objective of the research was to find out how the implementation of these strategies can influence listening skills. The study has a mixed approach, students from A1 and A2 levels in the university of Yachay were randomly divided into experimental and control groups. A diagnostic test was administered to both groups to measure listening skills, then the experimental group was trained in note-taking strategies (Cornell notes, outline notes, mind maps, Split-page method). A final test was then administered to both groups in order to analyze the differences in the results. Finally, a survey on the use of

note-taking strategies was administered to the students in the experimental group. The results indicate that after note-taking strategy training, the experimental group showed a significant improvement in their listening skills compared to the control group, with a notable increase in the average grades obtained. Furthermore, surveys show student acceptance of note-taking strategies and also indicated increased confidence and active participation of students in the classroom. Research shows that note-taking strategies are effective in improving listening skills in EFL learners, and their inclusion in teaching programs is recommended to enhance language learning.

Keywords: Note taking strategies, Listening, English, Learning, Performance.

Sumário

Esta investigação aborda o impacto das estratégias de anotações no desenvolvimento da competência de compreensão oral em aprendentes de inglês como língua estrangeira (EFL). O principal objetivo da investigação foi descobrir como a implementação destas estratégias pode influenciar a capacidade de compreensão auditiva. O estudo adotou uma abordagem mista: os alunos dos níveis A1 e A2 da Universidade de Yachay foram divididos aleatoriamente em grupos experimental e de controlo. Um teste de diagnóstico foi aplicado a ambos os grupos para avaliar a capacidade de compreensão auditiva. De seguida, o grupo experimental recebeu formação em estratégias de anotações (método Cornell, anotações em tópicos, mapas mentais e método de divisão de páginas). Um teste final foi aplicado a ambos os grupos para analisar as diferenças nos resultados. Por fim, foi aplicado um questionário sobre a utilização das estratégias de anotações aos alunos do grupo experimental. Os resultados indicam que, após o treino em estratégias de tomada de notas, o grupo experimental apresentou uma melhoria significativa na capacidade de compreensão auditiva em comparação com o grupo de controlo, com um aumento notável na média das notas obtidas. Além disso, os questionários mostraram a aceitação das estratégias de

tomada de notas por parte dos alunos, bem como um aumento da confiança e da participação ativa dos alunos na sala de aula. A investigação mostra que as estratégias de tomada de notas são eficazes para melhorar as competências de compreensão oral em aprendentes de inglês como língua estrangeira, e a sua inclusão em programas de ensino é recomendada para melhorar a aprendizagem da língua.).

Palavras-chave: Estratégias para tomar notas, Compreensão oral, Inglês, Aprendizagem, Desempenho.

Introduction

One of the most critical skills in second language acquisitions is the listening skill due to its importance to effective communication. However, many students learning English as a Foreign Language (EFL) find problems in developing their listening skills, they commonly struggle with accents, pronunciations, the speed of what is being heard, vocabulary, and grammar. To overcome this, educators have constantly implemented various strategies to boost listening comprehension. Among all the strategies, note-taking has been one of the most relevant tools for academic success. It provides students with the skills to concentrate, categorize information and recall details. Regardless of its popularity, the impact of note-taking strategies on listening skills development in EFL context, is still not explored enough and even less with lower levels such as A1 and A2 EFL students do not commonly possess effective strategies to handle spoken information during tasks that involve listening, which obstructs comprehension and reduces the ability to utilize oral input. Note-taking has been widely recognized as a beneficial technique in academic settings, in EFL contexts which has not been studied appropriately.

Although, previous research has probed the positive effects of note-taking on academic listening (e.g., Zohrabi & Esfandyari, 2014), many of them concentrated on intermediate to advance levels like B1 or B2 levels in academic contexts where English is spoken and learned as a second language. Just a few studies have looked for the influence of note-taking on beginner levels (A1, A2). Moreover, the predominant format of audios used in the studies have been lectures and not varied contexts audios leaving a gap in understanding its broader applicability. Recent studies, such as those by Bao (2013) and Al-Ghazo (2023), agreed that note-taking training brings great benefits to learners, but they mainly used tests like TOEFL impeding generalization in other EFL contexts. This study tries to analyze the gaps by concentrating on beginner learners and explore the impact of note-taking by using varied audio material.

This study seeks to investigate the impact of note-taking strategies on the listening skills of A1-A2 level EFL learners in a university context. To be more specific, this study aims to assess how effective various note-taking strategies are in enhancing students' comprehension. Also, to compare the fulfilment between an experimental group who received instruction in note-taking strategies and a control group. Finally, this research seeks to explore the students' perceptions over the utility of note-taking strategies in listening activities. The research questions that guide this study are: How do note-taking strategies affect the listening skills of A1-level EFL learners in a university context? What are the earners' perceptions of the use and effectiveness of note-taking strategies in English classes? Since the study was carried out in a university with beginner levels in an EFL context, it contributes to filling the gap in the literature. Additionally,

the results of the study may benefit EFL educators in general who seek to support EFL learners in achieving listening proficiency.

Note-taking, in an English as a Foreign Language (EFL) class, is the process of recording key points, ideas, and examples presented during lessons to support comprehension and retention. It stimulates active listening, organizes information, and the notes can be reviewed outside the classroom to reinforce concepts. (Flowerdew & Miller, 2005). Salame and Thompson (2020) found that by using note-taking strategies, students considerably increased their understanding with the content which matches with the goal of organizing information for later review thanks to active listening. Effective note-taking strategies, such as summarizing, outlines, and the use of symbols or visual aids, encourage autonomous learning and enhance critical thinking (Brown, 2007). Furthermore, it is considered an important academic skill that helps students to process and internalize new vocabulary, grammar structures, and cultural nuances (Farr & Carey, 1986). The importance of note-taking is more than writing down notes, it actively engages students in the learning process. When students take notes, they develop their ability to focus on main ideas, identify important details, and organize complex information. This contributes to improving their listening and writing skills (Brown, 2007). Moreover, note-taking facilitates independent learning since students can review their notes and reflect on the content, this enables them to analyze their own learning and reinforce concepts. This process encourages deep cognitive engagement, which is critical for language acquisition (Flowerdew & Miller, 2005). Additionally, note-taking is important for test preparation and long-term retention of language concepts. Researches suggest that

students who take detailed and organized notes can recall information during assessments and apply learned material in real-life contexts (Farr & Carey, 1986). Notes can also serve as personalized study guides since they provide learners with a structured resource to revisit grammatical rules, vocabulary, and complex concepts. Furthermore, integrating note-taking techniques, such as graphic organizers and mind maps, enhances visual learning and makes abstract concepts more accessible (Brown, 2007).

Notetaking is known to be a strategy that enhances listening comprehension by encouraging active engagement with the content presented in the lessons. It enables learners to filter, organize, and retain important information, providing students the opportunity to structure and understand spoken language. Effective note-taking ignites the transformation of passive listening into an active process, letting students to cognitively process and better understand the information" (Salame & Thompson, 2020, p. 15). However, there is still a concern regarding the cognitive demands of simultaneously writing notes and processing auditory input, this may affect the balance between active listening and the physical act of recording information. Research explores the impact of different notetaking strategies and their effects on listening comprehension. The importance of mastering note-taking in school is based on retention problems, since students cannot re-listen to perform an activity, students must take every opportunity to record information so they can use it later (Hayati & Jalilifar, 2009). In this study, researchers used the Cornell method as a primary strategy of note-taking. In this case, the chosen methods demonstrated to be effective when used by students. According to Örsdemir and Özdemir Yılmazer (2016), the role of note-taking in

listening comprehension is significant. The author considers factors like enhanced concentration, improved listening skills, inference skills development and writing skills improved as considerations of great impact. Lam (2021), also evidences that the use of notetaking strategies may have a positive impact in students' listening comprehension.

Literature provides specific notetaking strategies, such as the Cornell Method, mind maps, and outlines, that cater to different learning styles. These strategies may vary in their effectiveness depending on the context of the task and learner's preferences. Some scholars state the need to provide explicit instruction on notetaking techniques as part of EFL curricula. The debate focuses on whether educators should teach students a variety of strategies or focus on a singular approach, as well as on students' autonomy when selecting techniques that work better for them. From the wide range of techniques available for notetaking, it is important to make sure they align to the main goal of using them which is to provide the opportunities to learners to succeed in the retention of information (Teng, 2011). The author stands out the importance of instructing learners with the note-taking strategies for better comprehension, retention, and organization of lecture content. The Note-taking strategies used by Teng were shorthand and abbreviations, mind mapping, outlining, charts and arrows, and keyword methods. O'Malley and Chamot (1990), claim that notetaking should be explicitly taught to help students process and retain auditory information more effectively. Their work recalls the importance of notetaking as a cognitive tool that supports comprehension and long-term retention.

Cognitive Load Theory (CLT) provides an understanding of how the mental effort required to process information affects learning outcomes (Sweller, 1994). In the context of notetaking, this theory emphasizes the importance of handling cognitive resources effectively to increase comprehension and retention. According to Sweller (1994), learners have a limited working memory capacity and overloading it with excessive information can delay learning. This concept is relevant to EFL educators whose learners must simultaneously process auditory input and write down key points from information provided. Costley, J., & Fanguy, M. (2021). Note-taking performed in collaboration can decrease the cognitive load like the common distractions and confusion. By doing so, learners will be allowed to share the cognitive burden of listening and taking notes simultaneously. This approach lines up with Shi et al. (2022) in the way that shared tasks reduce the cognitive load enabling students to concentrate on understanding instead of recording content presented in class. Cognitive Load Theory provides a basis for designing activities that balance mental effort and information processing in EFL settings. Educators can enhance notetaking effectiveness by teaching strategies that minimize cognitive overload so students can focus on understanding and retaining important information. The theoretical framework presented in this review points out the essential role of notetaking in improving the listening skill in EFL contexts. The integration of Cognitive Load Theory helps to understand the mental processes involved in notetaking and how these can be optimized to reduce cognitive overload (Sweller, 1994). Furthermore, Sweller (1994) highlights the importance of visual aids to reduce cognitive demands. This theoretical foundation supports the current research, which aims to explore the relationship between

notetaking strategies and listening skills, offering insights into pedagogical approaches that can help educators in EFL contexts.

Materials and Method

This study employs a mixed-method approach, utilizing quantitative and qualitative approaches to analyze the impact and the perception of EFL learners on note-taking strategies for the development of listening skills. The study follows an experimental design, dividing participants into an experimental group and a control group to measure and identify significant differences in the scores after the intervention with the experimental group. The participants were selected from a group of English leveling students at Yachay Tech University. Participation was voluntary, and all students provided informed consent prior to the study. The participants were randomly assigned to one of the following groups: Experimental Group: 25 students who received direct instruction and training in note-taking strategies. Control Group: 29 students who did not receive any additional instruction on note-taking strategies. This random distribution facilitates the collection of valid data to analyze and compare the results. There are three stages clearly identified in this study. A pre-test, intervention, and a post-test.

Pre-Test: The study began with an initial pre-test or a diagnostic listening quiz to establish a baseline of the participants' listening skills prior to the intervention. This assessment aimed to identify the students' strengths and weaknesses. It also served as a reference point for evaluating the effectiveness of the note-taking strategies after the intervention. The pre-test consisted of graded listening materials aligned with the A1 and A2 levels of the Common European Framework of Reference for Languages (CEFR). The test was designed to have a clear

picture of students' listening skills, including identification of main ideas, recognition of specific details and interpretation of implicit meanings. The test results provided quantitative data that informed the design of the intervention and later served as a benchmark for post-test comparisons.

Intervention: The intervention stage involved a six-week training on note-taking strategies for the experimental group. For this, the researchers created a booklet with the explanation of note taking, some tips to take notes and the practice of four note taking strategies. The strategies covered included: The Cornell Method; The Outline method; Mind maps; The Split-page Method. For the intervention, the researchers designed an hour session per week to introduce and explain one strategy, followed by an example of notes taken from an audio that allowed students to observe and have a better understanding of each of the strategies. Then, there was a practical exercise where students had to use the strategy explained by the researcher with the purpose of identifying main ideas, specific details, and organizing key information effectively. Meanwhile, the control group continued with their regular program without the note-taking sessions.

Post-Test: After the intervention stage, a post-test was administered to both groups to measure their improvement in listening. This test was based on A2 audios with vocabulary and familiar topics aligned with the curriculum. The results of the post-test were used to compare improvements between the experimental and control groups, providing quantitative evidence of the impact of note-taking strategies. The test results highlighted differences in performance and significant outcomes.

Quantitative Data Collection: Quantitative data were gathered through the pre-test and post-test, aligned with

students' level of English (A1 and A2). The listening materials included graded recordings with questions to measure students' listening comprehension skills; Identifying main ideas; Recognizing specific details; Making inferences. These tests provided objective data to measure the effectiveness of the note-taking strategies implemented during the intervention.

Qualitative Data Collection: Qualitative methods were employed to complement the qualitative data and to know participants' perceptions and experiences regarding the usefulness and effectiveness of the note-taking strategies.

Questionnaires: Structured questionnaires were distributed to the experimental group to measure student satisfaction and perceptions of the effectiveness regarding the notetaking strategies. These questionnaires combined rating scales and open-ended questions, allowing the collection of both quantitative data and qualitative comments. The qualitative data complemented the quantitative results, offering a holistic understanding of the impact of the intervention revealing patterns in students' feedback.

Quantitative Analysis: The quantitative data were analyzed using the welch's t-tests to compare the pre-test and post-test results of the experimental and control groups. This statistical approach assessed whether the observed differences in the averages of the post-test were statistically different and measured the effectiveness of the intervention.

Qualitative Analysis: The qualitative data collected from questionnaires were analyzed using thematic analysis. Responses were categorized into themes that reflected participants' views on: The utility and effectiveness of note-taking strategies for listening tasks; Challenges encountered during implementation; The willingness to use the strategies in the future levels. This dual approach ensured that both

numerical data and subjective experiences support the validity of the findings. The study was reviewed and approved by the Research Ethics Committee of Yachay Tech University to ensure the protection and rights of participants. Before participating, all students signed an informed consent letter after receiving detailed information about the study; Confidentiality: All personal data and responses were anonymized. Right to Withdraw: Participants could withdraw from the study at any time without penalty. Data Security: All data collected was securely stored, only authorized researchers were able to access the data. The study was reviewed and approved by the Research Ethics Committee of Yachay Tech University.

Results and Discussion

The research measured the impact of using note-taking strategies on the listening skills of A1 and A2 level English as a Foreign Language students. The means of grades obtained from the pre-test and post-test of the control group (27 students) and the experimental group (23 students) were analyzed have a clear understanding of the impact note-taking strategies.

Table 1. Pre-test and Post-test results

Groups	Pre-test mean	Post-test mean	Number of participants
Control Group	6.27	4.98	27
Experimental group	5.55	6,02	23

Source: Own elaboration.

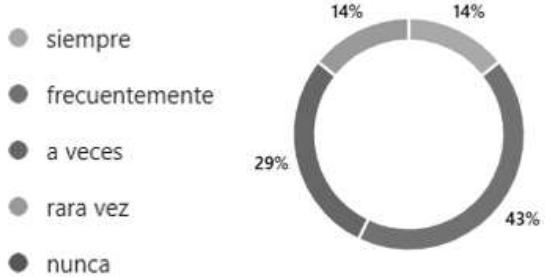
In the pre-test, the control group obtained an average score of 6.27 out of 10, while the experimental group obtained an average of 5.55. These results show that the control group started with a higher performance than the experimental group. In the post-test, the control group obtained an average score of 4.98, while

the experimental group obtained an average of 6.02. Even though the experimental group started with a lower average score, it managed to improve after the training in note-taking strategies. On the other hand, the control group showed a decrease in the average. The research hypothesis (H1) was that the direct training on note-taking strategies has a positive impact on listening comprehension skills. The null hypothesis (H0) was that the training on note-taking strategies does not have a significant impact on the listening comprehension skills of the experimental group. To validate the hypothesis the researchers used Welch's T-test of two-tailed samples since the size of the two samples were different, the control group with 27 participants and the experimental group with 23 participants. The t-test calculates if there is a significant statistical difference between the means of the post-test of the two groups to validate or deny H1.

The standard deviation (SD) of the means of the control group was 1.96, the SD of the experimental group was 1.47. The significance level or α to reject the hypothesis was 0.05 (5%). After applying the t-test, the p value obtained was 0.039. Since $p\text{-value} < \alpha$, H0 is rejected. The average of the control group is not equal to the average of the experimental group. In other words, the difference between the averages of the control and the experimental group is big enough to be statistically significant. The p-value 0.039 means that the chance of rejecting the hypothesis is small: 0.039 (3.90%). The smaller the p-value the more it supports H1. The survey administered to the experimental group revealed that note-taking strategies have acceptance and it is considered as useful and effective tools to perform better in listening comprehension tasks. To the question "Después de la capacitación en las diferentes estrategias de

toma de notas, ¿Con qué frecuencia las utilizaste en las clases de inglés? The results obtained were the following:

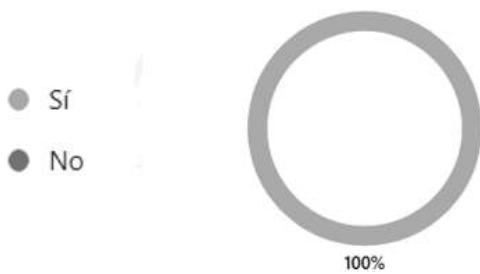
Figure 1. Question 5 of the Survey applied to the experimental group



Source: Own elaboration

To the question ¿Crees que usar una estrategia de toma de notas te ayuda en las actividades de listening? The participants answers were as follows.

Figure 2. Question 7 of the Survey applied to the experimental group



Source: Own elaboration

The strategy that students used the most was the split-page method together with the Cornell method. The findings suggest that training in note-taking strategies had a positive impact on the listening skills of the experimental group. The improvement observed in this group demonstrates the effectiveness of these strategies to identify and record key information during listening. In contrast, the control group, which did not receive the training, showed a decrease in performance, this indicates a need

for additional strategies to strengthen their listening skills. These results align with previous studies that emphasize the importance of note-taking in developing listening.

Conclusions

This research provides evidence that the implementation of note-taking strategies has a positive impact on the listening skills in A1 and A2 EFL students. The experimental group, trained in techniques such as Cornell notes, outline notes, mind maps, and the Split-page method, demonstrated significant progress compared to the control group. The results suggest that incorporating note-taking strategies training into the curriculum can benefit students in their listening skill performance. Future research should explore the long-term impact of these strategies, as well as their application to other levels of language proficiency. In conclusion, this study reaffirms the role of note-taking strategies as a useful pedagogical tool for improving listening skills and facilitating autonomous learning in EFL students.

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