

Auditory Learning Styles and Their Impact on EFL Learners' Listening Proficiency

 <https://doi.org/10.31004/jele.v11i4.3052>

*Irham Miftakhul Jannah, Risma Rahajeng Lestari, Sinta Restu Ningsih^{abc} 

¹²³Universitas Mayjen Sungkono, Indonesia.

Corresponding Author: irham.engdept@gmail.com

ABSTRACT

This study investigates the influence of auditory learning preference on students' listening proficiency. Although learning style inventories, particularly auditory learning preferences, have long been promoted as useful tools for improving language instruction, recent empirical evidence has questioned their ability to predict academic achievement. Most previous studies have focused on students' perceptions of learning styles or their relationship with general learning outcomes, while relatively few have specifically examined whether auditory learning preference predicts listening proficiency in English as a Foreign Language (EFL) context. Addressing this gap, the present study employed a quantitative approach involving 22 auditory-dominant students. Data were analyzed using descriptive statistics and Simple Linear Regression. The results revealed that auditory learning preference was not a statistically significant predictor of listening proficiency ($p^* = 0.460 > 0.05$), explaining only 2.8% of the variance in students' listening scores. These findings suggest that self-reported auditory learning preference is not a reliable predictor of listening success. The study highlights the importance of prioritizing evidence-based instructional approaches, including vocabulary development and metacognitive listening strategies, rather than relying on learning style classifications. These findings contribute to the growing body of research challenging the educational value of learning style inventories in second language acquisition.

Keywords: Auditory Learning Preference, Listening Proficiency, Learning Styles.

Article History:

Received 18th June 2026

Accepted 17th July 2026

Published 25th July 2026



INTRODUCTION

In the context of English as a Foreign Language (EFL) instruction, listening proficiency is frequently regarded as a foundational yet challenging skill (Alzamil, 2021). As the primary gateway for input, listening serves as a prerequisite for effective communication and language acquisition (Patni, 2022). Despite its significance, many EFL learners find listening difficult because spoken language is temporary and requires fast, real-time processing. Furthermore, listening is not a passive act of hearing; it involves the active construction of meaning, requiring learners to juggle phonological decoding, lexical retrieval, and syntactic parsing simultaneously. This highlights the urgent need to understand the variables that influence how learners receive and process auditory information. Mastering these complexities requires the deployment of metacognitive strategies, which allow learners to regulate their cognitive processes while decoding spoken input (Goh & Vandergrift, 2021).

The struggle with listening is often exacerbated by the traditional classroom environment, which may prioritize standardized methods that do not necessarily cater to the diverse cognitive needs of students. While modern pedagogy emphasizes communicative approaches, there remains a persistent disconnect between the demands of high-stakes listening assessments and the individual capacity of students to manage auditory input effectively (Choi & Nunan, 2022). This raises a fundamental question: are the learners failing to listen, or is the instruction failing to resonate with their unique cognitive processing styles (Meng et al., 2023)?

In the Indonesian EFL context, recent literature dealing with challenges in listening learning has argued that conventional pedagogical designs frequently overlook critical linguistic features, such as ellipsis repair, boundary overrun, and disfluent clause markers. Research suggests that comprehension breakdowns in this setting are not merely incidental; rather, they are 'structurally traceable' and demand pedagogical responses that emphasize real-time syntactic and prosodic negotiation (Stevani et al., 2025). This highlights a significant gap: while standard instruction focuses on general comprehension, it often fails to equip learners with the ability to navigate the complex, authentic nature of spoken discourse.

One of the critical factors in language acquisition is the diverse nature of learner profiles, specifically their individual differences in learning styles (Holzknecht & Brunfaut, 2022; Pratama, 2024; Zarrabi, 2020). Among various learning styles, auditory learning style has gained attention for its potential to support language acquisition, particularly in developing listening skills. Auditory learners tend to absorb information more effectively when it is presented through sound, such as lectures, discussions, or audio recordings (Oladele & McCall, 2024; Rohmah et al., 2025). However, academic discourse often reveals a gap between this theoretical predisposition and the actual listening proficiency of students. It remains unclear whether possessing an auditory learning style automatically translates into superior listening achievement, or if other variables can also affect EFL learners' listening proficiency.

Recent research has increasingly questioned the educational value of learning styles, particularly their effectiveness in predicting language learning outcomes. While learning style theories remain popular in educational practice, systematic reviews and empirical studies have found limited evidence that matching instructional methods to students' preferred learning styles significantly improves academic achievement (Cuevas, 2021; Rogowsky et al., 2020). In the context of English as a Foreign Language (EFL), listening comprehension is now understood as a complex cognitive process influenced by vocabulary knowledge, metacognitive awareness, prior knowledge, working memory, and listening strategies rather than by sensory learning preferences alone (Vandergrift & Cross, 2023; Graham & Santos, 2022). Recent studies also emphasize that successful listening depends on learners' ability to monitor comprehension, infer meaning, and regulate cognitive processes during listening tasks (Zhang & Graham, 2024). These findings indicate that listening proficiency is better explained by cognitive and strategic factors than by self-reported auditory learning preferences, highlighting the need to re-evaluate the pedagogical reliance on learning style inventories in contemporary EFL instruction.

Recognizing the impact of these individual differences is essential for improving EFL pedagogy (Zarrabi, 2020). If teachers can discern the relationship between learning styles and listening outcomes, they can tailor their instructional strategies to be more inclusive and effective. By aligning teaching methods with the learners' cognitive strengths, educators can foster a more supportive environment that empowers students to overcome listening barriers (Goh & Vandergrift, 2021). Therefore, it is imperative to investigate the extent to which these stylistic preferences shape the language-learning experience.

Given the points discussed above, this article aims to investigate the relationship between auditory learning styles and the listening proficiency of EFL learners. By analysing how these learners navigate auditory tasks, the study seeks to provide insights into whether a preference for auditory learning serves as a significant predictor of listening success, ultimately offering recommendations for more targeted and personalized language instruction in the EFL classroom.

METHOD

This research utilizes a quantitative *ex post facto* design to analyze the impact of auditory learning styles on students' listening proficiency. Because auditory preference is an inherent individual characteristic, an *ex post facto* design is the most appropriate method for exploring this relationship without altering the students' natural learning environment (Cohen et al.,

2018). Through the comparative analysis of intact groups, this study determines how distinct degrees of auditory preference account for differences in listening outcomes.

Data were collected using the VARK questionnaire (Fleming, 2001) to categorize students' learning styles and a listening comprehension test focusing on general communication, which were then analyzed through Simple Linear Regression to determine the extent to which auditory learning style preferences predict or influence listening proficiency, with the significance level set at 0.05 (Creswell & Creswell, 2018).

Respondents

The participants in this study were 22 undergraduate students enrolled in the English Language Education Study Program, Faculty of Teacher Training and Education (FKIP), at Universitas Mayjen Sungkono. They were fourth-semester students taking the *Listening for General Communication* course during the 2025/2026 academic year and were between 19 and 21 years old. The sample consisted of 10 male and 12 female students. Participants were selected from an initial population of 77 students using purposive sampling. First, the VARK Questionnaire Version 7.8 (Fleming, 2001) was administered to identify students' dominant learning preferences. Based on the screening results, 22 students who obtained the highest scores in the auditory learning dimension were selected to participate in the study. This sampling strategy ensured that all participants represented learners with a dominant auditory preference, allowing the study to specifically examine whether auditory learning preference significantly predicts listening comprehension performance in an authentic English language learning context.

Instruments

Data were collected using two primary instruments: the VARK learning style questionnaire and a listening comprehension test. The learning styles were assessed using a 30-item questionnaire (10 visual, 10 auditory, and 10 kinesthetics), employing a three-point Likert scale (often=3, sometimes=2, never=1) to categorize participants' modal preferences. The total auditory scores ranged from 10 to 30. This numerical score served as the predictor variable in the regression analysis, representing the participants' strength of auditory preference.

Listening proficiency was measured using a 25-item multiple-choice test designed to assess listening for general communication. The test was structured into three sections: Section 1 (10 items) assessed specific details and location identification through 5 short situational dialogues; Section 2 (10 items) evaluated inference and speaker attitude through 3 extended dialogues; and Section 3 (5 items) measured global comprehension through a monologue on school life. Notably, the topics and difficulty levels were meticulously aligned with the curriculum of the 'Listening for General Communication' course, to ensure that the test items were suitable with the learning objectives and material experienced by the participants. To ensure high-quality and consistent auditory input, all test materials were produced using AI-driven voice synthesis, with rigorous iterative adjustments regarding tone, pace, and clarity to simulate a natural, human-like delivery. The instrument was delivered via Google Forms and underwent expert validation to establish its content alignment and suitability for the targeted listening competencies. The score range was 0 to 100 which functioned as the criterion variable, providing a quantitative measurement of students' comprehension ability. The data distribution for these scores, characterized by their respective means and standard deviations, served as the basis for examining the extent to which auditory preference influences listening performance.

Procedures

The data collection was carried out over a period of three months in the odd semester 2025/2026 academic year. The data collection was conducted in three phases. First, in the preparation phase, the VARK questionnaire was distributed to 77 students enrolled in the 'Listening for General Communication' course. While waiting for the results, the researcher

developed a 25-item listening test. The audio materials were created using AI-driven voice synthesis and underwent iterative refinements for tone, pace, and clarity to ensure a natural delivery. The test instrument then underwent expert validation, followed by a small-scale pilot study involving five students to ensure the clarity of instructions and the technical functionality of the audio across devices. The expert validation focused on content relevance and difficulty level, ensuring alignment with the course curriculum. And feedback from the pilot study has indicated that the instructions were clear and the audio quality was satisfactory, leading to no significant revisions of the test items.

Second, upon identifying the participants, the 22 students with the highest auditory preference scores were selected through purposive sampling. In the final phase, these selected participants were invited to complete the validated listening test via Google Forms. Upon completion, the data were analysed using Simple Linear Regression via SPSS to determine the predictive influence of auditory learning preferences on listening proficiency.

Data Analysis

The data collected from the VARK questionnaire and the listening comprehension test were processed and analysed using the Statistical Package for the Social Sciences (SPSS). The analysis was conducted in three distinct stages. First, descriptive statistics, including mean and standard deviation, were calculated to summarize the participants' performance in the listening test and their auditory preference scores. Second, prior to hypothesis testing, the data were subjected to classical assumption tests—specifically the normality test (using Kolmogorov-Smirnov) and the linearity test—to ensure that the data met the requirements for regression analysis. Finally, Simple Linear Regression was employed to examine the predictive influence of auditory learning style preferences on students' listening proficiency. The significance of the influence was determined at a 0.05 level of significance, and the coefficient of determination (R^2) was calculated to identify the percentage of variance in listening proficiency that could be attributed to auditory learning preferences.

FINDINGS AND DISCUSSION

Findings

The findings of this study were based on the data obtained from the 22 auditory-dominant students. Table 1 presents the descriptive statistics for the students' auditory learning preference scores and their listening proficiency scores. As shown in the table, the participants exhibited a mean score of 22.81 for auditory preference, with a standard deviation of 1.89. Meanwhile, the mean score for the listening comprehension test was 56.90, with a standard deviation of 21.73. These descriptive results provide an overview of the participants' distribution in both variables before further regression analysis was conducted.

Table 1. Descriptive Statistics of Auditory Preference and Listening Proficiency Scores

Variable	N	Mean	Std. Deviation	Min	Max
Auditory Preference Score	22	22.81	1.89	19	26
Listening Proficiency Score	22	56.90	21.73	24	96

Prior to the regression analysis, normality and linearity tests were conducted to ensure that the data met the assumptions for parametric testing. The normality test, performed using the Kolmogorov-Smirnov method, yielded a significance value of .200 ($p > 0.05$), indicating that the data were normally distributed. Furthermore, the linearity test was assessed through ANOVA. The results showed a significance value for Deviation from Linearity of .659 ($p > 0.05$), confirming that the relationship between the variables is linear. The summary of these prerequisite tests is presented in Table 2.

Table 2. Summary of Prerequisite Tests

Auditory Learning Styles and Their Impact on EFL Learners' Listening Proficiency

Test	Method	Significance Value (<i>p</i>)	Status
Normality	Kolmogorov-Smirnov	.200	Normal
Linearity	Deviation from Linearity	.659	Linear

Following the prerequisite tests, a Simple Linear Regression analysis was performed to examine the predictive influence of auditory learning preference on listening proficiency. The results are summarized in Table 3 and Table 4.

Table 3. Model Summary of Regression Analysis

Model	<i>R</i>	<i>R</i> Square	Adjusted <i>R</i> Square	Std. Error of the Estimate
1	.166	.028	-.021	21.959

Table 4. Regression Coefficients

Model	<i>B</i>	Std. Error	Beta	<i>t</i>	Sig.
(Constant)	13.367	57.942	-.021	0.231	0.820
Auditory Style	1.908	2.531	.166	0.754	0.460

As shown in Table 3, the *R* Square value of .028 indicates that auditory learning preference explains only 2.8% of the variance in students' listening proficiency, while the remaining 97.2% is attributed to other factors outside the scope of this study. Furthermore, the regression analysis presented in Table 4 reveals a significance value of .460, which is higher than the alpha level of 0.05. This indicates that auditory learning preference does not significantly predict listening proficiency ($t = 0.754, p = 0.460$).

Although the linearity test confirmed a linear relationship, the regression analysis demonstrates that this relationship is not statistically significant. This finding suggests that for the participants in this study, possessing a high auditory learning preference does not necessarily translate into higher listening comprehension scores. Other underlying factors, such as vocabulary mastery, cognitive engagement, or previous English exposure, may play a more decisive role in determining listening performance than the self-reported auditory learning style alone.

Discussion

The primary objective of this study was to examine whether auditory learning preference could predict listening proficiency among students. Contrary to the initial hypothesis, the findings revealed that auditory learning preference does not significantly influence students' listening comprehension scores ($p = 0.460 > 0.05$). The regression model further indicated that this learning preference accounts for a marginal 2.8% of the variance in listening performance.

Several factors may account for this non-significant result. First, listening comprehension is a multifaceted cognitive process that involves not only auditory perception but also vocabulary breadth, syntactic knowledge, and background knowledge. As noted by (Goh & Vandergrift, 2021), listening is an active process of constructing meaning that relies heavily on a listener's linguistic resources rather than their sensory preference. While a student may self-identify as an auditory learner based on the VARK questionnaire, this subjective preference does not necessarily translate into superior performance in a standardized listening test, which requires complex cognitive tasks such as inference-making and vocabulary retrieval.

Second, the disparity between learning style preferences and actual performance has been a subject of ongoing debate in educational research. Recent studies have demonstrated that self-reported learning style preferences—including those measured by the VARK inventory—fail to correlate with objective academic outcomes (Newton & Miah, 2017; Putri, 2017). The learning styles myth often distracts educators from implementing evidence-based strategies that benefit all students regardless of their perceived preference. In this context, our findings imply that for the participants, listening proficiency is likely influenced by a broader constellation of factors, such as their prior exposure to English, the intensity of their previous

language training, and their overall motivation, rather than their preferred style of information processing (Goh & Vandergrift, 2021).

Finally, the findings suggest that the use of a single-dimension inventory like the VARK questionnaire to predict performance may be limited. Learning style inventories often fail to account for the dynamic and context-dependent nature of learning. Educators should therefore be cautious about over-relying on learning style categorizations. Instead, a more balanced pedagogical approach – one that exposes students to diverse listening strategies and input types – may be more effective in fostering listening proficiency, regardless of their self-reported learning preferences (Newton & Miah, 2017).

The findings of this study are consistent with a growing body of recent research questioning the predictive value of learning styles for academic performance. The result that auditory learning preference did not significantly predict students' listening proficiency supports Rogowsky et al. (2020), who found no meaningful improvement in learning outcomes when instructional methods were matched to students' preferred learning styles. Similarly, Cuevas (2021) concluded that empirical evidence does not support the assumption that learning style preferences enhance academic achievement, suggesting that learning performance is influenced by multiple cognitive and contextual factors rather than sensory preferences alone. In the field of EFL listening, Vandergrift & Cross (2023) and Graham & Santos (2022) argue that successful listening comprehension depends primarily on vocabulary knowledge, metacognitive awareness, inferencing ability, and strategic listening rather than on learners' preferred input modality. However, these findings contrast with earlier studies that reported positive associations between auditory learning preference and listening achievement, suggesting that learners who preferred auditory input performed better in listening-related tasks. Such differences may be attributed to variations in research design, participant characteristics, measurement instruments, and educational contexts. Overall, the present findings provide additional evidence that listening proficiency is better explained by cognitive and strategic processes than by self-reported auditory learning preferences, reinforcing the recommendation that EFL instruction should prioritize evidence-based listening strategies rather than learning style classifications.

CONCLUSIONS

This study examined whether auditory learning preference predicts students' listening proficiency in an English as a Foreign Language (EFL) context. The findings indicated that although most participants preferred auditory learning, this preference did not significantly predict listening comprehension ($p > 0.05$). Auditory learning preference explained only a small proportion of the variance in listening proficiency, suggesting that it is not a key determinant of listening success. Instead, listening proficiency appears to be influenced by factors such as vocabulary knowledge, metacognitive awareness, listening strategies, and exposure to authentic English input. These results suggest that self-reported learning style inventories, including the VARK questionnaire, have limited value in improving listening achievement. Therefore, EFL teachers should prioritize evidence-based instructional practices that develop linguistic and cognitive skills rather than matching instruction to students' perceived learning styles. As this study involved a relatively small sample from a single institution, future research should include larger and more diverse samples while examining additional variables, such as motivation and self-regulated learning, to better explain listening proficiency.

REFERENCES

- Alzamil, J. (2021). "Listening Skills: Important but Difficult to Learn", *Arab World English Journal*, Vol. 12(2021), P. 367. *Arab World English Journal*, 12(3), 366–374.
- Choi, J., & Nunan, D. (2022). Learner contributions to materials in language teaching. In *The Routledge Handbook of Materials Development for Language Teaching* (pp. 429–440). Routledge.

- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (eight edition). Abingdon, Oxon, 532–533.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Fleming, N. D. (2001). Teaching and learning styles: VARK strategies. *ND Fleming*.
- Goh, C. C. M., & Vandergrift, L. (2021). Teaching and learning second language listening: Metacognition in action. In *Teaching and Learning Second Language Listening: Metacognition in Action*. Routledge. <https://doi.org/10.4324/9780429287749>
- Holzknacht, F., & Brunfaut, T. (2022). Individual difference factors for second language listening. *The Routledge Handbook of Second Language Acquisition and Individual Differences*, 331–346.
- Meng, Y., Wang, Y., & Zhao, N. (2023). Cognitive diagnostic assessment of EFL learners' listening barriers through incorrect responses. *Frontiers in Psychology*, 14, 1126106.
- Newton, P. M., & Miah, M. (2017). Evidence-based higher education—is the learning styles 'myth' important? *Frontiers in Psychology*, 8, 241866.
- Oladele, O. K., & McCall, A. (2024). Auditory learning: The importance of verbal instruction and discussion. *Journal of Educational Psychology*, 116(2), 45–60.
- Patni, G. (2022). Listening as an important tool in language acquisition while teaching. *International Research Journal of Education and Technology*, 4(5), 295–298.
- Pratama, C. H. (2024). Correlation of Students' Listening Comprehension Score With Students' Learning Styles at Students of English Department at University of Muhammadiyah Gresik. *J-SHMIC: Journal of English for Academic*, 11(1), 51–62.
- Putri, A. (2017). *The Correlation between Students' Language Awareness and Learning Styles toward Their TOEFL Listening Skill*. 8(2), 142–151.
- Rohmah, D. F., Fitriah, F., & Marharini, S. (2025). Exploring Students' Learning Styles in English Language Learning: Implications for Differentiated Instruction Strategies. *Journal of English Language and Education*, 10(6), 518–524.
- Stevani, M., Wijayati, W., Tarigan, J. R., & Saragi, A. A. (2025). Redefining Challenges in English Listening Comprehension through Ellipsis Repair, Boundary Overrun, and Disfluent Clause Markers. *Journal of English Language and Education*, 10(5), 103–116.
- Zarrabi, F. (2020). Investigating the Relationship between Learning Style and Metacognitive Listening Awareness. *International Journal of Listening*, 34(1), 21–33. <https://doi.org/10.1080/10904018.2016.1276458>