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Enhancing Students Listening Skills: The Impact of Podcast Integration in Language Learning

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Abstract

This study aims to determine the effect of using podcasts on improving students' listening skills in learning English. Using a quasi-experimental design, two classes were involved, namely the experimental class that received learning through podcasts and the control class that was taught using conventional methods. The research instrument in the form of a multiple-choice test was arranged in the form of a pre-test and post-test to measure students' listening comprehension. The results of the analysis showed that students in the experimental class experienced a more significant increase in listening skills compared to the control class. This finding strengthens the theory of the importance of understandable input and Mayer's theory which emphasizes the combination of audio and verbal stimuli in learning. Podcasts have been shown to provide authentic input that can be accessed again according to the students' learning pace, thereby increasing their motivation, independence, and involvement in the learning process. Thus, podcasts are worthy of being used as an effective alternative learning media to improve listening skills in the context of teaching English as a foreign language.

Keywords

Digital Audio Content, Language Learning, Listening Skill, Podcast Integration.

1. Introduction

Listening is a fundamental skill in English language teaching and learning, as effective communication relies heavily on the ability to listen. It plays a vital role in the language acquisition process, providing essential input to students. If students struggle to understand this input, their learning journey is hampered. According to Rost (2012) and Dibia (2018) listening is one of the four core language skills, alongside speaking, reading, and writing are particularly important during the early stages of language learning. Emphasizing listening before engaging in speaking or reading can significantly improve learners' ability to acquire a foreign language more effectively than if all skills were taught simultaneously. Furthermore, research shows that listening is used more frequently in the classroom than any other skill, accounting for approximately 45% of our communication time, compared to 30% for speaking, 16% for reading, and 9% for writing.

Effective communication depends on the ability of students to receive messages accurately, which in turn promotes effective learning. Listening word for word or listening to details is essential to get the main idea. Once the listener tries to understand each word, there is an opportunity for them to understand and find keywords that give them clues to understanding listening (Suryadi et al, 2023). To foster strong listening skills, teachers must select and apply appropriate teaching techniques. However, many educators lack the knowledge and resources necessary to use effective teaching listening methods, often using outdated techniques that make the learning experience monotonous and uninspiring. This lack of engagement can demotivate students, who need stimulating and supportive conditions to thrive in their listening practice. In addition, physical factors and student inattention can further complicate listening comprehension, requiring teachers to consider the physical environment and the preparatory steps students should take before, during, and after listening activities (Yoestara & Putri, 2019; Indahsari, 2020; Sabrila et al, 2022).

In today's technology-driven era, it is important for educators to utilize modern tools in their teaching practices. Teachers involved in innovative curriculum development are more motivated to seek new, effective, and enjoyable teaching methods (Edy & Sumarta, 2024). Podcasts are a valuable resource for improving listening skills, as they combine audio and visual elements in an easily accessible format (Erben, 2012; Fachriza, 2020; Nurwinanda & Khalik, 2023). As defined by Sharon (2023), podcasts can be utilized by teachers to provide diverse audio content tailored to the needs and proficiency levels of their students. This flexibility allows educators to enrich their listening instruction and engage students more effectively. The researcher has chosen to focus on podcasts, believing that podcasts serve as an effective tool for improving students' listening skills. The purpose of this study was to investigate whether there is a significant effect of podcast use on students' listening skills in the second grade of Junior high school (*Sekolah Menengah Pertama/SMP*) IT Nur Zam Syam. Using quantitative methodology with quasi-experimental design, this study will analyze data collected from pre-test and post-test given to experimental and control groups (Wiratmoko et al., 2023; Nadiyya & Suryadi, 2024; Wusqo et al., 2024).

Recent studies have highlighted the effectiveness of podcasts in improving listening comprehension among English as a Foreign Language (EFL) learners. Damayanti and Hadi (2022) showed that the use of podcasts as a learning strategy significantly improved students' listening skills in a junior high school setting. Mohamed et al. (2024) study found that video-podcasting effectively developed active listening skills among EFL students. These findings suggest that podcasts can serve as an effective teaching tool in EFL classrooms, offering authentic listening experiences that traditional methods may lack. The theoretical basis is that exposure

to real-life language use through podcasts can improve students' listening comprehension and processing skills. This study aims to provide empirical evidence on the effectiveness of podcasts in improving listening skills, thereby contributing to the existing knowledge of language teaching.

2. Literature Review

Listening is a fundamental receptive skill in language acquisition. Rahmah (2023) defines it as a form of oral communication requiring attention and concentration, while Li (2012) emphasizes its active nature involving sound discrimination, vocabulary, grammar, and sociocultural understanding. Jalongo (2010) identifies four core listening activities, perceiving, interpreting, evaluating, and responding, highlighting the multifaceted nature of listening. Rost (2012) further views listening as the process of receiving, constructing, and negotiating meaning.

Within this context, podcasts have emerged as an effective digital tool in language education. Rosell-Aguilar (2009) defines podcasts as audio, video, or enhanced recordings, whereas Sharon (2023) highlights their accessibility and multimedia format. These tools are often categorized into authentic materials and structured language-learning content (Amumpuni, 2016; NamazianDost et al., 2017; Abdulrahman et al., 2018). The use of podcasts in improving EFL learners' listening comprehension has garnered increasing attention. NamazianDost et al. (2017) studied 60 Iranian pre-intermediate learners and found a significant increase in listening scores from 48 to 65.36. At Institute of Teacher Training and Education (*Institut Keguruan dan Ilmu Pendidikan/IKIP*) and Republic of Indonesia Teachers Association (*Persatuan Guru Republik Indonesia /PGRI*) Jakarta, Amumpuni (2016) reported an increase in students' scores from 60.21 to 70.36 through podcast-based instruction. Similarly, Abdulrahman et al. (2018) noted improvements from 50 to 63.06 using independent sample tests. Partiwi (2022) also documented an average score increase from 70 to 80.68 among approximately 100 students. These results confirm the consistent effectiveness of podcasts in enhancing listening comprehension (Yazmin & Clara, 2024; Rahmi et al., 2025). Podcasts offer additional benefits beyond listening skills. Constantine (2010) notes that they support learners in developing speaking, pronunciation, vocabulary, and grammar skills. Moreover, their flexibility and cost-effectiveness make them a practical resource for educators. Collectively, the literature underscores the pedagogical value of podcasts as a modern tool for improving EFL learners' listening abilities.

The integration of podcasts in English as a Foreign Language (EFL) learning has shown considerable promise, particularly in enhancing students' listening comprehension. Previous studies support this trend. NamazianDost et al. (2017) found that Iranian EFL learners improved their listening scores by 17.36 points after podcast exposure. Likewise, Amumpuni (2016) observed a score increase from 60.21 to 70.36 among first-semester students in Jakarta. Similar upward trends were reported by Abdulrahman et al. (2018) and Partiwi (2022) further reinforcing the positive correlation between podcast use and improved listening outcomes (Yazmin & Clara, 2024; Rahmi et al., 2025).

The current experimental study strengthens this evidence. Students in both experimental and control groups began with similar average pre-test scores (68.62 and 69.93, respectively), indicating comparable initial listening skills. Post-treatment, the experimental class, which integrated podcasts, achieved a higher average score (80.92) compared to the control class (76.44). Furthermore, 50% of students in the experimental group reached the "Excellent" category, while only 22.2% did so in the control group, indicating improved comprehension and engagement. Statistical analysis confirms the significance of these results. A t-test yielded a value of 2.291 with a significance level of 0.026 ($p < 0.05$), confirming a meaningful difference between the two groups. The mean difference of 4.479 with a

95% confidence interval (0.555–8.402) supports the hypothesis that podcast integration has a statistically significant effect on listening performance.

H1: Experimental has a significant relationship to listening skills.

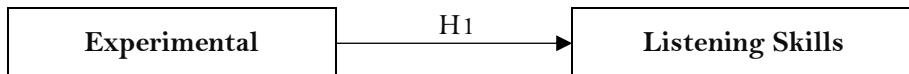


Figure 1. Research Framework

The research framework in Figure 1 shows the causal relationship between the use of experimental methods—in this case podcast media—and students' listening skills. Hypothesis H1 states that experimental treatment has a significant relationship to improving listening skills. This model tests whether the use of podcasts as a learning medium can provide a real impact compared to conventional learning methods.

3. Methods

This research employed a quasi-experimental design, specifically utilizing two classes: an experimental class and a control class. The experimental class was selected to receive instruction through podcasts, while the control class was taught using traditional methods without the incorporation of podcasts. The study was conducted at Junior high school IT Nur Zam Syam. The total number of populations was 53 students who came from both class XI MIA and XI IIS. The researchers took all classes as a sample from the population. The researcher chose class XI MIA 1 which consists of 26 students and XI IIS which consists of 27 students. For participant selection, a purposive sampling technique was employed. Class XI MIA 1 was designated as the experimental class and Class XI IIS was chosen as the control class. To assess listening comprehension, a set of 25 multiple-choice questions was developed, all derived from the same instructional material and designed to maintain a similar level of difficulty. These questions were divided into two assessments: a pre-test and a post-test.

Data analysis was conducted using parametric statistics, specifically the T-test, as the study involved two samples: experimental and control groups. The T-test was chosen to determine whether there was a significant difference or effect between the two groups. Prior to conducting the T-test, the researcher performed normality and homogeneity tests to ensure that the data met the necessary assumptions for parametric testing. If the data were found to be non-normal or heterogeneous, the researcher would have employed a non-parametric alternative, specifically the chi-square test, as it does not require the data to be normally distributed or homogeneous. In addition to the T-test, the study also calculated the N-gain score to evaluate the effectiveness of the podcast intervention. The N-gain score was determined by calculating the difference between the pre-test and post-test scores, allowing the researcher to assess the impact of using podcasts on students' listening skills. This comprehensive approach to data analysis aimed to provide a clear understanding of the effectiveness of podcasts in enhancing listening comprehension among the participants.

4. Results

The findings of this study indicate a significant improvement in students' listening skills following the integration of podcasts into the learning process. Both the experimental and control groups started with comparable pre-test scores 68.62 and 69.93, respectively demonstrating similar initial abilities. After treatment, the

experimental group, which was exposed to podcast-based learning, achieved a higher mean post-test score of 80.92. In contrast, the control group, taught using conventional methods, scored an average of 76.44. Furthermore, 50% of students in the experimental group reached the “Excellent” category, while only 22.2% of the control group achieved the same level, indicating a notable enhancement in comprehension and engagement.

To determine statistical significance, an independent sample t-test was conducted. The test produced a t-value of 2.291 with a significance level (p-value) of 0.026, which is below the 0.05 threshold. This result supports the rejection of the null hypothesis, confirming that the use of podcasts has a meaningful impact on students' listening performance. The mean difference of 4.479, with a 95% confidence interval ranging from 0.555 to 8.402, reinforces the conclusion that podcast integration significantly improves listening comprehension among second-grade junior high school students.

Table 1. Student scores in the experimental class pre-test before and after

Model	Class	Mean Score	Max	Min	SD	Poor (%)	Enough (%)	Good (%)	Excellent (%)
Before	Experimental	68.62	84	56	7.73	19.2	34.6	42.3	3.8
	Control	69.93	84	56	7.39	11.1	37.0	48.1	3.7
After	Experimental	80.92	92	68	7.18	0	3.8	46.1	50.0
	Control	76.44	88	64	7.05	0	14.8	63.0	22.2

The results of the descriptive analysis, which can be seen in Table 1, show that both groups, namely the experimental class and the control class, started learning with relatively equal listening skills. Most students are in the “Good” or “Enough” category with an average score below 70, which indicates that there is still room for improvement in listening skills. After the treatment was given in the form of podcast integration in English learning, the experimental class showed a more significant improvement than the control class.

The average post-test score of students in the experimental class reached 80.92, while the control class only reached 76.44. In addition, as many as 50% of students in the experimental class achieved the “Excellent” category, indicating a positive impact of using podcast media on improving listening comprehension. In contrast, only 22.2% of students in the control class achieved this category. This increase indicates that podcasts as a learning medium can provide a more authentic and interesting listening experience, thereby strengthening student engagement in the learning process. These results support the research hypothesis that podcast integration has a significant effect on improving students' listening skills. Thus, the use of podcasts is not only effective in improving academic scores but also helps create a more interactive and relevant learning atmosphere to current student needs.

The results of the normality test using Kolmogorov-Smirnov and Shapiro-Wilk showed a significant value greater than 0.05 on the pre-test and post-test scores in both the experimental and control classes. This indicates that all data in this study are normally distributed and meet the requirements for parametric statistical analysis.

Table 2. Homogeneity Test

Test Types	Sig. Levene's Test
Pre-test	0.867
Post-test	0.599

The results of the Homogeneity Test are shown in Table 2, the significance value of Levene's Test for the pre-test is 0.867 and for the post-test is 0.599. Both values are greater than 0.05, indicating that the data has homogeneous variance. This

homogeneity is important to ensure that the experimental and control groups have the same variance before the t-test is conducted. Thus, the assumptions for the use of parametric statistical tests are met.

Table 3. Hypothesis Testing

Class	N	Mean	Std. Deviation
Experimental	26	80.92	7.183
Control	27	76.44	7.046

The results of the hypothesis test in Table 3 compare the post-test scores between the experimental class and the control class. The experimental class, which received treatment in the form of using podcasts in listening learning, had an average score of 80.92 with a standard deviation of 7.183. Meanwhile, the control class using the conventional method showed an average score of 76.44 with a standard deviation of 7.046.

Table 4. t-test results

Model	Value
t	2.291
df	51
Sig. (2-tailed)	0.026
Mean Diff	4.479
95% CI (Lower, Upper)	0.555, 8.402

The results of the t-test in Table 4 show that the t value obtained is 2.291 with a degree of freedom (df) of 51 and a significance value (Sig. 2-tailed) of 0.026. This value is smaller than the significance limit of 0.05, and the t-observed is greater than the t-table ($2.291 > 1.675$). Thus, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted. This means that there is a significant difference between the post-test scores of students in the experimental class and the control class. The mean difference of 4.479 with a 95% confidence interval (CI: 0.555 - 8.402) shows that the use of podcasts has a positive impact on improving students' listening skills. These results indicate that the integration of podcasts as a learning medium makes a significant contribution to helping students understand the material more effectively than conventional learning methods. From a practical perspective, these findings recommend that English teachers start incorporating podcast-based materials into their lesson plans as alternative listening resources.

5. Discussion

The results of the data analysis clearly show that students taught using podcasts outperformed their peers who received conventional instruction. This finding confirms that the use of podcast media has a statistically significant positive effect on students' listening skills. Thus, the integration of podcasts into classroom learning supports the hypothesis proposed in this study. This finding is consistent with previous research conducted by NamazianDost et al. (2017), who found that the inclusion of podcasts in EFL classrooms improved listening comprehension among Iranian pre-intermediate learners. Similarly, Amumpuni (2016) reported that podcasts allow students to access materials repeatedly, which facilitates comprehension and retention. Putra and Dianti (2022) also emphasized the motivational benefits of podcasts, noting that learners enjoy the memories and autonomy provided by digital audio content, which contributes to better listening performance.

From a theoretical perspective, the positive effects of podcasts are in line with Krashen's (1985) states that learners acquire language most effectively when exposed to comprehensible input slightly above their current level ($i + 1$). Podcasts, especially those designed for language learners, offer authentic, contextual input that can be replayed and reviewed at the learner's pace. This repeated exposure not only supports auditory decoding and vocabulary acquisition but also builds learners' confidence in interpreting spoken English. Furthermore, these findings are also related to Mayer (2005) states that combining verbal and auditory stimuli in the learning process enhances retention and comprehension. Although the podcasts used in this study were primarily audio-based, they may have activated learners' cognitive processing more effectively than traditional listening tasks by simulating real-life communication and delivering content in an engaging format.

In addition to cognitive and linguistic benefits, podcasts also contribute to learner motivation and autonomy. In many traditional classrooms, listening activities are limited to textbook-based recordings or direct teacher input, which may not always reflect natural language use or accommodate individual learning styles. Podcasts, on the other hand, present language in a real-world context, interviews, stories, or everyday conversations, which helps learners see the relevance of what they are learning and motivates them to engage with the material voluntarily. This motivation may explain the improved performance in the experimental group. Research by Alm (2006) supports the idea that podcasts can enhance learner autonomy and motivation by providing authentic and engaging language input. Movva et al. (2022) found that podcasting serves as an effective method for second language acquisition in e-learning environments, encouraging greater learner engagement. This reinforces the pedagogical value of podcasts as an inclusive tool that can meet the diverse needs of learners. Tunagür et al. (2021) emphasize that podcasts can be adapted to accommodate different learning styles, thereby increasing the inclusivity of language teaching.

6. Conclusion

This study concludes that the use of podcasts as a learning medium has a significant and positive impact on improving students' listening skills in English language learning. The main finding demonstrates that students who were exposed to podcast-based learning showed better improvement in listening comprehension compared to those taught through conventional methods. This result confirms that podcasts, with their authentic, engaging, and flexible content, support students in acquiring listening skills more effectively. From a practical standpoint, the integration of podcasts into classroom instruction offers several advantages. Students can access content independently, repeat materials as needed, and learn at their own pace. This autonomy fosters motivation and engagement, making learning more enjoyable and personalized. Teachers and curriculum developers are encouraged to adopt podcast-based resources as supplementary tools to enrich listening instruction.

Theoretically, this study reinforces principles of language acquisition that highlight the importance of meaningful and contextual input. The use of real-life audio materials aligns with input-based learning theories, emphasizing the role of exposure in developing receptive skills. Furthermore, podcasts help simulate natural language environments, supporting the internalization of linguistic features over time. However, this research has certain limitations. It focuses solely on listening skills within a limited time frame and involves a relatively small sample size. The use of identical pre- and post-tests, while maintaining difficulty consistency, may also influence internal validity. Therefore, future research should consider expanding the scope to include other language skills such as speaking or writing. Longitudinal studies and mixed-method approaches are also recommended to

provide a deeper understanding of how podcasts influence language development across various contexts and learner profiles.

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Ethical approval was obtained for this study. The manuscript represents original work and has not been previously published, nor is it under consideration by another journal.

Data Disclosure Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.



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