

Improving Tenth Graders' English Listening Skills Through Podcast-Based Teaching at Senior High School

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Abstract

Listening is a crucial yet often overlooked skill in English language learning, particularly among senior high school students in religious educational settings with limited exposure to authentic language input. This research aimed to examine the significant effect of using podcasts in teaching listening to tenth graders. Specifically, the goal was to determine whether podcasts could serve as an effective and engaging medium to improve students' listening comprehension in English. This research is grounded in cognitive and constructivist learning theories, which view listening as an active mental process enhanced through exposure to meaningful and authentic input. Additionally, Krashen's input hypothesis and schema theory support the use of podcasts as effective tools for language acquisition. The researcher employed a quasi-experimental design with a quantitative approach. Instruments used in this research included a pre-test, treatment, post-test, and observation checklist. The population involved tenth graders at SMA Assa'adah Bungah during the 2024–2025 academic year, with a total sample of 66 students divided into experimental and control groups. Data were analyzed using SPSS version 26.0 with non-parametric statistical tests. The results showed a significant improvement in the experimental class's post-test scores (mean = 85.15) compared to the control class (mean = 69.24), with $p = 0.000$ and an effect size of $r = 0.871$. The novelty of this research lies in its implementation of podcasts in a religious school context with limited authentic English exposure. These findings offer practical implications for English teachers seeking to improve listening skills through engaging, student-centered digital media..

INTRODUCTION

English language learning focuses on four essential skills, that are reading, listening, speaking, and writing. Among these, listening skills are often considered the most fundamental yet challenging to master. Listening plays a crucial role in acquiring language input before it can be processed and expressed through speaking, reading, and writing. As explained by (Brownell,

2016), listening is a basic and essential skill in both communication and social interaction. (Rest, 2019) also stated that listening is a complex skill involving various cognitive and social processes, emphasizing its importance in second language acquisition.

From the perspectives of both scholars, listening is an active process that involves receiving, interpreting, and constructing meaning from spoken messages. It is not a passive act but rather a dynamic cognitive process that requires concentration and analysis. Listening supports the ability to understand and respond appropriately to spoken language in a variety of contexts, which is vital for real-world communication. In addition to enabling comprehension, listening skills enhance speaking abilities and interpersonal interactions. It helps learners understand context, tone, emphasis, emotions, and speaker intent, which are crucial components of meaningful communication. DeVito (2000) outlines five interconnected stages in listening: receiving, understanding, remembering, evaluating, and responding. Each of these stages reinforces the learner's ability to participate effectively in communication.

(Maulina et al., 2022), media functions as a sensory-based communication tool that facilitates the delivery of learning content. Traditional media such as print texts, radio broadcasts, and audio CDs were commonly used in classrooms. With the development of digital technology, newer forms such as videos, social media, websites, and streaming platforms have provided more interactive and flexible learning experiences. (Mansyur & Aminah, 2024) also emphasizes that modern media fosters not only information transfer but also interaction and collaboration, which are essential in student-centered learning. Despite the availability of various media, issues such as technological dependence and low-quality content can reduce their effectiveness (Connolly, 2011). Therefore, selecting appropriate, reliable, and contextually relevant media is vital to maximize student learning outcomes, especially in developing listening skills.

In modern language teaching, audio-visual technology has become a cornerstone for enhancing language skills. (Arrahma et al., 2024) emphasized that audio-visual aids such as videos, films, and interactive media are proven methods for improving students' listening skills. These tools allow learners to engage with language in a contextualized and interactive way, fostering both motivation and comprehension. (Uden et al., 2019) further highlighted the importance of integrating social media and technological tools in English language instruction. Her findings suggested that technology-based instruction, including the use of social platforms, videos, and podcasts, can significantly increase student motivation and engagement. This is particularly true for listening, which benefits from authentic, engaging, and varied audio input.

Among the various digital media now available, one tool that stands out for its effectiveness and accessibility is the podcast media. Podcasts have emerged as one of the most effective for language learning. (Yaacob et al., 2021) found that podcasts and YouTube-based learning significantly improved students' listening comprehension. Podcasts offer authentic listening experiences with varied accents, topics, and real-life expressions that are essential for developing listening proficiency. According to (Gunawan et al., 2023), podcasts are particularly effective because they are portable, easily accessible, and allow students to listen at their own pace. They can repeat, pause, or speed up content according to their understanding, which enhances autonomous learning. Providing contextual and authentic audio to students has the potential to enhance not only listening skills but also vocabulary acquisition, pronunciation, and cultural understanding. This media also supports a shift from teacher-centered instruction to student-centered learning, encouraging learners to engage independently with English in meaningful ways.

According to (Ary et al., 2019), experimental research involves systematically

manipulating one variable to determine its effect on another. The manipulated variable is referred to as the independent variable, while the measured outcome is the dependent variable. However, when random assignment is not feasible, a quasi-experimental design can be used. As stated by Sugiyono (2013), quasi-experimental research involves both experimental group and control group, but without randomization. This type of design is considered practical for research in real-world educational settings where random sampling is difficult.

This research was conducted at SMA Assa'adah Bungah, located on Jl. Raya Bungah No. 1, Gresik. Several reasons for choosing this school as the research location. First, SMA Assa'adah is an Islamic-based institution that combines general and religious education. English is one of the core subjects, but many students at this school face challenge in mastering listening skills, especially due to limited exposure to natural and authentic English audio. Interviews with English teachers and some class X students at SMA Assa'adah, it is known that students are still very dependent on materials from textbooks and rarely get interactive or contextual listening experiences. They only listen to the teacher more often and repeat what the teacher says. Furthermore, SMA Assa'adah has sufficient technological infrastructure to support the implementation of podcast-based learning. Classrooms are equipped with projectors, speakers, and a stable internet connection, making it feasible to integrate digital audio content such as podcasts into the teaching process. The teachers and school administrators were also supportive of innovative teaching practices and welcomed research that seeks to improve students' English proficiency.

Similar quasi-experimental research by (Putu et al., 2024), conducted on eighth-grade students in Bali, found that students taught using podcasts showed significantly higher listening comprehension ($M = 71.20$) than those taught conventionally ($M = 55.67$, $p < 0.05$). Likewise, (Raihani Siti Ikrima & Nahartini, 2023) reported a significant increase in university students' listening scores using podcast-assisted learning (from 72.07 to 85.53, $p = 0.006$; effect size = 0.75). However, both studies were limited to different educational levels and contexts. Therefore, this research addresses the gap by applying podcast-based learning in a senior high school religious setting where exposure to authentic English is limited.

The quasi-experimental design is suitable for this research, as also applied by (Putu et al., 2024) and (Raihani Siti Ikrima & Nahartini, 2023), because random assignment of students to groups is not feasible in a natural school setting. Similar to those studies, this research involves existing intact classes to ensure ecological validity while still measuring the effectiveness of the treatment. Besides that, the researcher purposively selected two comparable classes as the experimental and control class, where the experimental class was given treatment using podcasts, while the control class used conventional media. This design allows the researcher to compare the outcomes and determine the effectiveness of podcast-based listening instruction while maintaining ecological validity. This research focuses on the effectiveness of podcasts as teaching media in improving the English listening skills of tenth graders. The results of this research are expected to provide valuable insights for educators, especially in schools with similar contexts, to implement innovative and effective listening strategies. The use of podcasts not only aligns with technological developments in education but also promotes autonomous and enjoyable learning. Based on this background, the researcher decided to conduct research entitled "The Effect of Using Podcasts as Teaching Media to Improve English Listening Skills of Tenth Graders at SMA Assa'adah Bungah."

In light of these observations, this research aims to investigate the impact of using podcasts as a teaching medium to enhance the listening comprehension skills of tenth graders at SMA Assa'adah Bungah. The research seeks to answer the following question: "Do tenth

grade students at SMA Assa'adah who are taught listening using podcast media achieve better learning outcomes than those taught using conventional media?”. By addressing this research question, the research will contribute valuable insights into the role of podcasts in secondary education and their potential as an effective pedagogical tool for listening instruction.

The research is grounded in the assumption that podcasts can serve as an effective medium for improving listening skills. The primary hypothesis is that students who are exposed to podcast-based listening activities will demonstrate higher levels of listening comprehension compared to those who rely on conventional listening instruction. Specifically, the research hypotheses are formulated as follows:

- Alternative Hypothesis (Ha): using podcasts media in teaching listening for the tenth graders at SMA Assa'adah achieve better than those taught using conventional media.
- Null Hypothesis (Ho): using podcasts media in teaching listening for the tenth graders at SMA Assa'adah does not achieve better than those taught using conventional media.

The theoretical framework of this research is based on the principles of cognitive and constructivist learning theories. Cognitive learning theory suggests that listening comprehension involves active mental engagement in processing auditory information. Constructivist theory, on the other hand, emphasizes the importance of meaningful learning experiences, where students construct knowledge through interaction with authentic language materials. The conceptual framework of this research identifies podcasts as an independent variable, while students' listening comprehension serves as the dependent variable. The research further examines various indicators of listening comprehension, including students' ability to understand main ideas, identify details, and infer meaning from spoken texts.

In addition to these theoretical foundations, schema theory also plays a critical role in understanding the learning process. According (Anderson & Pearson, 2016), schema theory suggests that individuals process new information by relating it to their prior knowledge. When students listen to podcasts, they activate their existing linguistic and contextual schemata, which facilitates comprehension. This research integrates schema theory to examine whether podcasts provide sufficient contextual cues that aid students in processing spoken English more effectively.

Another relevant perspective is the input hypothesis proposed by (Krashen, 2004), which posits that learners acquire language when they receive comprehensible input slightly beyond their current proficiency level. Podcasts, by exposing students to a range of authentic listening materials, align with this hypothesis by offering content that challenges learners while still being understandable. This aspect of podcast-based learning will be examined to determine whether exposure to varied input leads to measurable improvements in listening comprehension.

In conclusion, this research seeks to contribute to the existing body of knowledge by analyzing the effectiveness of podcasts as a pedagogical tool for listening comprehension. By addressing existing research gaps, this research aims to provide empirical evidence supporting the integration of podcasts in English language instruction. The findings of this research are expected to offer theoretical and practical contributions to the field of language education. Theoretically, the research will enhance understanding of podcast-based learning within cognitive and constructivist frameworks. Practically, the results will provide educators with evidence-based recommendations on how to utilize podcasts effectively in classroom settings. Ultimately, this research underscores the growing importance of technology in education and its potential to reshape traditional approaches to language learning.

While several studies confirm the effectiveness of podcasts in higher education or

informal settings, few studies explore how structured podcast-based instruction functions in religious senior high schools with limited authentic English exposure. This research addresses that gap.

METHOD

The researcher employed experimental research in this research. (Ary et al., 2019) state that experimental research entails examining the impact of methodically adjusting one variable on another. The independent variable or experimental treatment refers to the altered variable, while the dependent variable is the one measured and observed. A quasi-experimental research design was used by the researcher. Compared to other research methods, this kind of quantitative research is unique. After altering or controlling one or more independent variables, the researcher assessed each group's response to the treatment (Lodico et al., 2006).

This experimental research aimed to determine the effectiveness of using podcast videos in improving the listening skills of tenth-grade students. The researcher utilized a quasi-experimental research design due to its practicality and suitability in real educational settings, where random assignment is often not possible. According to Sugiyono (2013), a quasi-experimental design is a type of experimental research that includes an experimental group and a control group, but without randomization in selecting the subjects. It is commonly applied when random assignment is difficult to implement.

In this research, the researcher chose two intact groups, one of which received the treatment designated as the experimental group while the other did not receive any treatment, known as the control group. Both groups were administered a pre-test to assess their initial condition and to identify any discrepancies between them. As (Ary et al., 2019) further explain, the experimental research observes the impact of adjusting an independent variable on a dependent variable. Both the experimental and control groups received a pre-test and a post-test as part of a nonrandomized control group pretest-posttest design. According to (Lodico et al., 2006), the experimental group receives the treatment, while the control group either receives no treatment or a different one. Random assignment of students to the experimental and control groups was not feasible due to school policy and class scheduling constraints. Therefore, the researcher used existing intact classes to maintain ecological validity, as commonly practiced in quasi-experimental research (Sugiyono, 2013; (Lodico et al., 2006). The following was the design:

Tabel 1. Research design taken from (Ary et al., 2019)

Control	Pre-test	Independent Variable	Post-test
C	Y1	X	Y2
D	Y1	-	Y2

Note:

C: Experimental Group

D: Control Group

Y1: Pre-test

Y2: Post-test

X: Treatment on the experimental group

The population of this research according to Arikunto (2010), a population was defined as the complete group of things or individuals to whom research findings were applied.

Meanwhile, according to Sugiyono (2017), a population was a category for generalization consisting of elements or individuals with certain characteristics and traits that researchers used to draw conclusions. In this research, the population consisted of tenth graders at SMA Assa'adah Bungah in the 2024–2025 academic year. Based on Arikunto (2012:104), if the population was fewer than 100, all members should be taken as the sample. However, if the population exceeded 100, it was sufficient to take 10–15% or 20–25% of the total population. Because the number of tenth graders at SMA Assa'adah was around 300 students and there were 6 classes, the researcher selected 20% as the sample, amounting to 66 students.

The sample was selected using purposive sampling technique. This technique was used because researchers needed to select certain classes that were accessible and met the research criteria. According to (Etikan, 2016) Purposive sampling (also known as judgmental sampling) is a non-random sampling technique in which researchers deliberately select participants based on the same qualities, knowledge, or experiences that the participants have, which are relevant to the research objectives. The decision to use purposive sampling was also based on the consideration that the classes selected had similar academic backgrounds and were available during the treatment schedule.

The sample was divided into two classes. The experimental class, consisting of 33 students from Class X-3, received listening instruction using video podcasts as the treatment media. Students in this class were exposed to podcast-based activities involving authentic listening materials that supported comprehension through repetition, real-life context, and engaging content. The control class, also consisting of 33 students from Class X-4, was taught using conventional listening methods, such as standard textbook recordings and teacher-centered explanations. This class did not use any podcast or digital media during the learning sessions.

The distinction between the two groups was critical to determine whether the use of podcasts provided a significant advantage over traditional teaching methods. By comparing the results from both classes, the researcher was able to assess the effectiveness of podcast media in improving English listening skills among tenth graders. The selection of Class X-3 and X-4 was also based on discussions with the English teacher, who confirmed that both classes had comparable academic abilities, class sizes, and learning characteristics. The teacher's recommendation supported the researcher's decision to use these two intact classes as the experimental and control groups, respectively.

The research procedure consisted of several steps, as outlined below:

1. Pre-test

The purpose of the pre-test was to assess the students' prior knowledge and initial listening ability before the treatment. Both the experimental and control classes were given the same 20-item multiple-choice listening test. The students had 45 minutes to complete the test based on the audio provided.

The pre-test was administered to determine the students' initial listening comprehension before the treatment. The researcher gave 20 multiple-choice tests to both the experimental class and the control class. In this test, students were asked to choose the correct answers after listening to an English audio recording provided by the researcher. This pre-test served as the baseline data for comparing post-treatment results between the two groups.

2. Treatment

This research used two treatment sessions, providing different media. The 2 treatments were carried out in the experimental and control class. where the experimental class was given podcast media and the control class was given conventional media such as

traditional audio.

This research involved two types of treatments by providing different media to both the experimental and control class. The experimental class received treatment through the use of podcast media, which consisted of authentic spoken English materials designed to improve listening comprehension. Meanwhile, the control class received treatment using conventional media, such as traditional audio recordings commonly used in classroom settings (e.g., textbook-based audio or teacher-recorded listening passages). Both treatments were administered in equivalent durations and focused on the same listening objectives to ensure comparability between groups.

3. Post-test

The After the treatment period, experimental class and control class were given a post-test using the same instrument as the pre-test: 20 multiple-choice questions based on a listening audio. This post-test aimed to measure the improvement in students' listening skills after the intervention.

The post-test was administered to both the experimental and control classes after the treatment was completed. The goal of the post-test was to determine whether the use of podcast media had a significant impact on students' listening comprehension. Students answered the same 20 multiple-choice questions based on the audio material provided, and the results were compared with the pre-test to identify any improvement in both groups.

4. Observation

This section presents the observation process conducted to support the quantitative findings to support the validity of the research, the researcher conducted classroom observation during the treatment process. An English teacher was invited to act as an independent observer. The observer evaluated the teaching and learning process, particularly students' listening engagement and participation in both the experimental and control classes.

According to (Cohen et al., 2019), an observation checklist is suitable for use in quantitative research due to its structured format, which allows for statistical analysis. They also stated that quasi-experimental research can use observation checklists to measure the effect of a treatment or instructional method on student behavior such as tracking how often students ask or answer questions during the lesson.

In this research, two observation checklists were used during the treatment sessions in the experimental class only, to monitor whether the podcast media was applied correctly according to the planned procedure. Throughout the teaching and learning process, these observations were made to assess whether classroom activities aligned with the instructional goals. The researcher invited an English teacher from the school to act as a colleague observer, who completed the checklists during the sessions. This method provided the researcher with a more objective and comprehensive view of the classroom dynamics during the intervention.

Data analysis technique

This research compared pre-test and post-test results in experimental and control class, comprising experiment and control group, using SPSS 26.0. The normality test was used by the researcher to conduct an initial examination of the data. To determine whether the use of podcasts had an impact on improving students' listening learning, the researcher then used the Mann-Whitney and Wilcoxon signed rank tests.

1. Normality Test

According to (Kadir, 2019), the normality test determines if a sample distribution is

normal or abnormal in comparison to the population. The researcher conducted the normality test using Shapiro-Wilk by SPSS 26.0. If the significance of the test (pre-test and post-test of experimental class and control class was greater than 0.05, then the data is normally distributed.

2. Wilcoxon Test

(Kadir, 2019) stated that the Wilcoxon test is a non-parametric test used to compare two dependent samples or correlations. A non-parametric test does not require. The researcher used SPSS 26.0 to conduct the Wilcoxon test. The hypothesis was accepted if the Asymp. Sig. value was less than 0.05.

3. Mann-Whitney Test

According to (Kadir, 2019), the Mann-Whitney test is a nonparametric test used to test the difference between two free samples (independent). The researcher used SPSS 26.0 to conduct the Mann-Whitney test. The hypothesis was accepted if the Asymp. Sig. value was less than 0.05.

4. Effect Size Formulation

This research uses a non-parametric test. Therefore, the researcher used the Wilcoxon and Mann-Whitney tests. Then, the effect size analysis determines if the data has a strong or weak influence. Using SPSS with formulas:

$$r = \frac{|Z|}{\sqrt{n}}$$

In this research, the researcher used the formula from (Cohen et al., 2019) to determine the criteria of the effect size level:

Tabel 2. Cohen's effect size formula

Range	Category
$r < 0.3$	Small Effect
$r = 0.3 - 0.5$	Medium Effect
$r > 0.5$	Large Effect

RESULT AND DISCUSSION

This chapter presents the findings of the research conducted to determine the effect of using podcasts on students' listening comprehension. The data were obtained through a quantitative approach by administering a set of standardized tests before and after the treatment. The purpose of this research was to evaluate whether there is a statistically significant difference in the achievement of listening skills between students taught using podcast media (experimental class) and students taught using conventional media (control class). In the initial phase of the research, a pre-test consisting of 20 multiple-choice questions was administered to both the experimental and control classes to measure their baseline listening abilities. The purpose of this test was to ensure that both groups started with comparable levels of listening proficiency prior to the implementation of the treatment.

Following the instructional intervention, a post-test identical in structure to the pre-test was administered to the same students in both groups. This allowed the researcher to observe the impact of podcast-based instruction in comparison to the traditional method. Both the pre-test and post-test scores were then collected and processed using SPSS version 26.0. The data were analyzed using non-parametric statistical tests due to the non-normal distribution of the sample. Descriptive statistics were used to summarize the central tendencies and variability of

the scores in both classes, and inferential statistics were employed to test the significance of the differences between them. The data of Experimental class and control class were presented in Table 3.

Table 3. Descriptive statistics of pre-test of experimental class and control class

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Test Experimental	33	35	75	56.82	11.307
Pre-Test Control	33	40	80	57.73	9.278
Valid N (listwise)	33				

Based on the pre-test results, the students in the experimental class had an average score of 56.82, with a standard deviation of 11.307. In contrast, the control class students recorded a mean score of 57.73 and a standard deviation of 9.278. Following the treatment, both classes underwent a post-test. The post-test results for listening skills in the experimental class indicated that the lowest score was 80, while the highest score reached 95. On the other hand, the control class post-test results revealed a lowest score of 60 and a highest score of 75. Further details were provided in Table 4.

Table 4. Descriptive statistics of post-test of experimental class and control class

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Post-Test Experimental	33	80	95	85.15	4.417
Post-Test Control	33	60	75	69.24	5.321
Valid N (listwise)	33				

According to the results of the post-test for listening skills in the experimental class, the average score was 85.15 with a standard deviation of 4.417. In contrast, the post-test results for listening skills in the control class revealed an average score of 69.24 with a standard deviation of 5.321. Additional details can be found in Tables 5.

Table 5. Normality test of pre-test and post-test of experimental class and control class

Tests of Normality							
	Class	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Score Students	Pre-test Experimental	.170	33	.017	.935	33	.049
	Post-test Experimental	.212	33	.001	.842	33	.000
	Pre-test Control	.177	33	.010	.931	33	.038
	Post-test Control	.284	33	.000	.817	33	.000

a. Lilliefors Significance Correction

Based on the SPSS normality table, the Sig value shows that all significance values (Sig.) Are below 0.05, both in the Kolmogorov-Smirnov and Shapiro-Wilk tests. This indicates that the data from the four groups are not normally distributed. So, this does not correspond to the basis for decision making in the normality test above, so it can be concluded that the data is not normally distributed. Thus, the assumption or requirement of normality in the regression model is not met. Sig Shapiro-Wilk is used instead of Kolmogorov-Smirnov because it is a better approach for smaller sample sizes (less than 50 samples), while it can also be applied to larger sample sizes; conversely, Kolmogorov-Smirnov is used for $n \geq 50$ samples.

More information was presented in Tables 6.

Table 6. Wilcoxon signed ranks test of pre-test and post-test of experimental class and control class

Ranks			
	N	Mean Rank	Sum of Ranks

Post-Test Experimental - Pre-Test Experimental	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	33 ^b	17.00	561.00
	Ties	0 ^c		
	Total	33		
Post-Test Control - Pre-Test Control	Negative Ranks	1 ^d	13.00	13.00
	Positive Ranks	31 ^e	16.61	515.00
	Ties	1 ^f		
	Total	33		

a. Post-Test Experimental < Pre-Test Experimental

b. Post-Test Experimental > Pre-Test Experimental

c. Post-Test Experimental = Pre-Test Experimental

d. Post-Test Control < Pre-Test Control

e. Post-Test Control > Pre-Test Control

f. Post-Test Control = Pre-Test Control

Wilcoxon signed ranks test Statistics of pre-test and post-test of experimental class and control class

Test Statistics^a

	Post-Test Experimental - Pre-Test Experimental	Post-Test Control - Pre-Test Control
Z	-5.030 ^b	-4.742 ^b
Asymp. Sig. (2-tailed)	.000	.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Based on the "Test Statistics" output, it was found that Asymp. Sig (2-tailed) had a value of 0.000. Since 0.000 was smaller than 0.05, it could be concluded that "the hypothesis was accepted." This indicated a difference between the listening skill learning outcomes in the Pre-Test and Post-Test. Therefore, it could also be concluded that "there was an influence of using podcast media to improve students' listening skills."

Table 7. Mann-Whitney test results of experimental class and control class in the form of post-test

Test Statistics^a

	Score Students
Mann-Whitney U	.000
Wilcoxon W	561.000
Z	-7.077
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Class

Based on the "Test Statistics" output, it was found that the Asymp. Sig. (2-tailed) value was 0.000. Therefore, it could be concluded that "the hypothesis was accepted. This indicated a difference in students' listening skills between the Experimental Class and the Control Class. Since the difference was significant, it could be concluded that "there was an influence of using podcast media to improve students' listening skills. Effect size from the Mann-Whitney result (Table 7)

Based on the results of the Mann-Whitney U test, the obtained Z-value was -7.077, and the total number of participants was 66 (33 students in the experimental class and 33 in the control class). To measure the strength of the effect, the effect size was calculated using the following formula:

$$r = \frac{|Z|}{\sqrt{n}}$$

Substituting the values into the formula:

$$r = \frac{7.077}{\sqrt{66}} = \frac{7.077}{8.124} \approx 0.871$$

The result shows that $r = 0.871$, which according to Cohen's criteria (1988) indicates a large effect size ($r > 0.5$). This means that the use of podcasts as a teaching medium had a strong and significant effect on improving students' English listening skills. Therefore, the treatment given to the experimental group (using podcasts) contributed significantly to enhancing their listening comprehension compared to the control group.

Discussion

According to the research findings, using podcasts as a teaching tool greatly enhanced students' listening comprehension. This section covers the implications of these findings in light of other studies, potential explanations for the results, and their importance in English language learning. The findings from this research, the pre-test results showed that the experimental class had a mean score of 56.82 with a standard deviation of 11.307, while the control class had a mean score of 57.73 with a standard deviation of 9.278. These values indicate that both groups had similar levels of listening skills prior to the treatment.

After the treatment, the post-test results revealed a significant improvement in the experimental class, which achieved a mean score of 85.15 and a standard deviation of 4.417, whereas the control class achieved only a mean score of 69.24 with a standard deviation of 5.321. This gap clearly shows that the experimental class performed better after being taught using podcast media. The Wilcoxon Signed-Rank Test was used to compare the pre- and post-test scores within each group. In the experimental class, the test result was $Z = -5.030$, with a significance value of $p = 0.000$, indicating a highly significant improvement. The Mann-Whitney U Test was used to compare the post-test results between the two classes. The result was $U = 0.000$, $Z = -7.077$, and $p = 0.000$, which shows a statistically significant difference in favor of the experimental class. Furthermore, the effect size was calculated as $r = 0.871$, which falls into the category of a large effect according to Cohen's criteria ($r > 0.5$).

These quantitative findings strongly support the conclusion that using podcast media significantly improves students' listening skills. The statistical results validate that the treatment was not only effective but also impactful in terms of measurable learning outcomes. Factor contributing to this improvement could have been the captivating and immersive listening experience that podcasts provided. Unlike traditional listening materials, podcasts often included real-world situations, a variety of dialects, and authentic language use, all of which helped students develop their listening skills in a more natural and meaningful way. Furthermore, since podcasts were highly adaptable, students had the opportunity to practice listening outside the classroom, giving them frequent exposure to spoken English an essential component of skill development.

These results are consistent with previous research by Aizan et al. (2021) emphasized that the use of podcasts and YouTube-based learning significantly improved students' listening comprehension. Thus, podcasts can improve listening comprehension by exposing students to authentic spoken language and helping them understand different accents and speech patterns. Several studies have also shown that because students can listen to episodes at their own pace, repeat difficult sections, and apply active listening techniques, podcasts also improve self-directed learning.

Furthermore, the findings implied that integrating technology into English language instruction could significantly improve students' learning outcomes. With the increasing

availability of digital learning tools, incorporating podcasts into the curriculum provided students with a valuable resource to enhance their listening comprehension beyond the traditional classroom. To sum up, this research offered compelling evidence that using podcasts as a teaching tool improved students' listening abilities. The effectiveness of this approach was demonstrated by the experimental group's post-test scores, which showed a significant improvement compared to the control group. Future researchers should investigate other factors, such as students' motivation, engagement levels, and the long-term effects of podcasting on language acquisition. Teachers are encouraged to incorporate podcast-based activities into their lesson plans to maximize students' growth in listening comprehension.

CONCLUSION

In this research, two tenth-grade classes at SMA Assa'adah Bungah were selected as the subjects of the research. Class X-3 was assigned as the experimental class, while Class X-4 served as the control class, with each class consisting of 33 students. The experimental class received treatment using podcast media as a learning tool to enhance their English listening skills. The treatment was conducted in two sessions using podcast focused on recount texts. Students in the experimental class were engaged in listening to the podcast, analyzing its content, and discussing the key messages conveyed by the speakers. This created a more interactive, contextual, and engaging learning experience. Meanwhile, the control class followed conventional media of listening instruction without the use of podcast media. They relied on standard audio recordings and textbook materials that lacked the authentic context and variety provided by podcasts.

The researcher conducted a pre-test and post-test on both classes and analyzed the data using SPSS 0.26. The post-test results showed a significant increase in the experimental class, which achieved an average score of 85.15, compared to 69.24 in the control class. To measure the effectiveness of the treatment because the data was not normally distributed, non-parametric tests were used. The Wilcoxon Signed-Rank Test was applied to compare the pre-test and post-test scores within each group. In the experimental class, the results showed a significant improvement $p = 0.000$, indicating that podcast-based learning had a positive effect on students' listening comprehension. The Mann-Whitney U Test was used to compare the post-test scores between the experimental and control classes. The result $p = 0.000$ revealed a statistically significant difference in favor of the experimental class. The calculated effect size ($r = 0.871$) also indicated a large effect, based on Cohen's standard ($r > 0.5$).

These findings confirm that using podcasts as teaching media had a strong and significant impact on improving students' English listening skills. The substantial improvement in the experimental class compared to the control class highlights the effectiveness of podcasts in creating engaging, authentic, and flexible learning environments. Therefore, podcasts can be considered a valuable and powerful tool for modern language education, particularly in enhancing students' listening comprehension.

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