The Effectiveness of Podcast-Based Listening Learning Media for 9th Grade Students of SMP N 5 Jepara

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Abstract. This study aims to determine the significant differences and effectiveness of podcasts on the listening skills of 9th grade students of SMP N 5 Jepara in the academic year 2022/2023. The researcher used a quasi-experimental design involving 30 students of 9H as the experimental class and 30 students of 9G as the control class. Data was collected using a listening test instrument consisting of pre-test and post-test. Then, the sampling technique used by the researcher was purposive sampling in which the sample was not taken at random. Furthermore, data analysis used SPSS statistical calculations. The results showed that the average post-test score for the experimental class was higher than the control class (86.9 > 78.9). This indicated that there was a significant difference in the post-test results. Then, the results of the hypothesis analysis showed that t observe was higher than table, namely (4.176 > 2.000). In addition, the 2 tailed sig was lower than alpha (0.00 < 0.05). This means that H0 is rejected and Ha is accepted. These results showed significant differences in the use of podcasts for students’ listening skills. Besides that, podcast was also effectively used for learning.

Keywords: Podcast; Learning Media; Listening; SMP N 5 Jepara; quasi-experimental design

INTRODUCTION
Along with the development of technology, English learning is affected. Teachers are required to be innovated using technology in the teaching and learning process. Many technology-based learning media can be applied to facilitate English language learning and teaching in the classroom to improve skills of speaking (Yeh, Chen, & Heng, 2021), skills of reading-while-listening through audio script (Artikasari & Anugerahwati, 2022), and to improve vocabulary-while-listening Technology-based learning media used to facilitate learning process to be effective and efficient (Al Rashid, Sara, & Adiyono, 2023). Learning media is used to assist teachers in carrying out the language learning process and delivering materials. On the other hand, learning media can also help students develop language skills optimally and make students happy (Qureshi, Mahdiyyah, Mohamed, & Ardchir, 2022). This research used Podcast-based listening learning media for 9th grade students of SMP N 5 Jepara.

Many researches of Podcast as listening learning media are conducted. It is said that podcast is able to motivate students to learn languages by listening (Saragih, Marpaung, & Saragih, 2022). Learning has been researched English has an important role in communication activities. Language becomes a liaison for someone to interact with another person so that the message can be understood. Listening is one of the skills that must be mastered because listening is the first
language acceptance ability learned. A person cannot speak before he masters listening (Nichols, 2021).

Students in Indonesia have difficulties in listening and speaking because in fact these skills were not well prepared in high school (Kondo & Ratuwongo, 2023) (Kharisma & Hakim, 2022). Most EFL learners in Indonesia have difficulty listening because it requires focus and concentration, so listening is a difficult skill for students (Jaya, Petrus, & Kurniawan, 2021). In addition, students also have difficulty when they face with long and fast audio. Students cannot understand what they hear well (Afriyuninda & Oktaviani, 2021). In addition, students’ ability to understand audio content is also an obstacle. Students tend to be passive in learning. Then, the low mastery of students’ vocabulary also affects students’ ability in listening skills (Asrida, Syafitri, Widya, Sakti, & Dewi, 2024).

The listening process occurs when someone listens to information and processes it to understand the intended information (Cai, Jin, Zhao, & Chen, 2023). Listening skill is one of the crucial skills in English. Listening skills emphasize the listening aspect in which the process of understanding, predicting, guessing, criticizing, and interpreting the speaker's intentions occurs (Newton, 2020). In listening, a person acquires perceptions, information, knowledge, so that they can be successful in communicating (Sasidharan, 2021). Listening is not a simple process. A person must be able to distinguish between sounds, understand grammar, interpret intonation and meaning, and adjust the social and cultural context of speech (Bonvillain, 2020).

Listening is the most basic language skill when compared to the other three skills. When he does not listen, he will face challenges in mastering and developing language skills (Chand, 2021). The importance of listening skills in English is that language learning depends on listening, providing basic input for language acquisition and making it easier for people to interact and communicate (Patni, 2022). Listening is the main gate in language acceptance because when someone learns a foreign language, the first learning comes from the ear (Cutler, 2021). Listening is the process of understanding words in the first or second language. Listening focuses on linguistic units such as (phonemes, words, and grammatical structures) and listener expectations, context, and prior knowledge (Goh & Vandergrift, 2021). Listening can be interpreted as a skill to pay attention or hear something. However, listening is not the same as hearing because the two have important differences. The difference lies in the level of intensity. Hearing is a passive activity. We only listen to the sound during a hearing without paying attention to the source. However, in listening, someone hears what is heard and automatically translates words into messages or information. Therefore, listening is an active process that determines the message or meaning of a sound or word (Risvia, 2019).

Listening is a receptive or productive skill in daily life activities. This activity involves understanding and receiving messages from the conversation. It requires us to understand and accept information (input). Listening is an active thing. When listening, a person hears and relates information to what they already know (Maulina, et al., 2022). Listening is the key to receiving messages. It is a combination of hearing and psychological involvement. Listening is a language skill that requires a desire to understand other people, an attitude of respect and acceptance, and a willingness to open our mind and try to see other people’s points of view (Kluger & Itzchakov, 2022).

According to Brown, listening is an essential skill in which language internalization through information and without it cannot produce language (Brown, 2001) (Azizah & Sholikkah, 2023). As a process of receiving what speakers say (receptive orientation), listening is also defined as constructing and representing meaning (constructive orientation), negotiating meaning with speakers and responding to it (collaborative orientation), and making meaning through
involvement, imagination, and empathy (transformative) (Jusnita, Supriyadi, Dahlan, & Mohdar, 2021). Therefore, listening is a complex skill because listeners must be able to distinguish sounds, understand vocabulary and grammar, interpret intonation and meaning, and adapt to the cultural meaning of the speech heard (Jaya, Petrus, & Kurniawan, 2021). Listening involves several things related to the characteristics of spoken language, use of context and knowledge, understanding of different text types, understanding of access, speech speed, and differences in listening sub-skills (Berkane, 2022).

Furthermore, listening involves 3 processes, namely 1) hearing; it includes listening skills and the ability to distinguish, mix, and remember sound sequences. 2) listening; the act of perception consisting of focus, awareness, and environmental cues. 3) auding; an act of understanding that begins with hearing and listening (Saputra, 2014). A complex psychological processing involves receptors and sensory capacities. Listening is also an active process by which people integrate what they hear and what they already know. Those are some reasons. According to Brown and Yule, there are two main goals: interactional and transactional (Brown & Yule, 1983) (Brown & Yule, 1983). While interactional is the language we use to convey social communication and we use to build relationships with someone (Prihartini & Buska, 2020), transactional is used for the purpose of transactions that have results (Sy, Anjarani, & Himmah, 2021).

There are several reasons why humans should be good listeners. First, they review the many components of English while listening such as grammar, vocabulary, intonation, accent, and interpretation. Second, through listening, they learn new words. Then, they imitate and apply what they hear. Furthermore, listening can become a hobby that can be conducted with other activities such as cooking, relaxing, and so on. Listening is also a way to practice mindfulness (Cornett, 2021).

There are several types of listening in English learning, namely extensive listening, intensive listening, appreciative listening, critical listening, discriminative listening, and comprehensive listening. In determining the meaning to comprehend speakers’ saying, there are two things: the lexicon of word and the rule of grammar (Saddhono, et al., 2023).

There are two types of processes in understanding oral discourse: bottom-up and top-down. In the bottom-up model, listening activity refers to building understanding starting from organizing the smallest unit as a basis (input) in delivering messages including sounds, words, clauses, sentences, texts, to the meanings that are derived (Syarliza, Suhatmady, & Sucayho, 2022). Comprehension is seen as a decoding process. The listener’s lexical and grammatical understanding becomes the basis for bottom-up processing in this process. The listening process is applied in series and hierarchical form.

In teaching bottom-up listening, students need to master vocabulary and knowledge of sentence structure formation to process bottom-up listening. Some exercises that students can do to develop bottom-up listening processing are 1) recognizing input that is being processed, 2) recognizing word class divisions and clauses, 3) recognizing keywords and critical transitions, 4) recognizing grammatical relationships between elements in sentences, 5) recognize stress and intonation to identify functions.

Top-down processing refers to the use of background knowledge to understand meaning. Top-down processing is opposed to bottom-up processing. While the bottom-up model starts from the language unit to the formation of meaning, the top-down process starts from meaning to language. The background knowledge needed in top-down processing is previous knowledge that includes discourse, situational, and contextual knowledge topics called "schemata". In other
words, listeners use context-related knowledge in communication to predict messages to be concluded (Pommée, Balaguer, Maudair, Pinquier, & Woisard, 2021).

These three phases contain activities that link bottom-up and top-down (Utomo & Sulistyowati, 2022). Pre-listening is a preparation phase where students, both bottom-up and top-down, go through several activities such as activating prior knowledge, reviewing keywords, and making predictions. Then, in listening, the process that is passed is comprehension related to exercise, which includes selective listening, gist, and sequencing. The last is the post-listening phase. This phase involves students’ comprehension responses by giving opinions about the topic. Success in listening can be seen from the strategies used. We can see whether students focus on the text’s content or consider how to listen. Focus on how listening will relate to strategy. Students can be introduced to effective strategies or approaches so that the learning process will run actively.

The two types of strategies are identified to be applied in listening (Nha & Dung, 2020) (Putri, 2022) as follows.

1. **Cognitive strategy**
   It is a mental activity associated with understanding and storing input. In this process, the effectiveness of learning in long-term memory is assessed. Then, there is an understanding related to linguistic and non-linguistic processes. Furthermore, this process also occurs when input is stored in long-term memory. Finally, there is the process of taking input, which later becomes output.

2. **Meta-cognitive strategy**
   It is a conscious mental activity that manages the cognitive strategy function. There are several things in the process. First, a situational assessment involves observing the language situation, the availability of internal and external sources, and the constraints before implementing it. Second, monitoring determines the effectiveness of a person’s appearance when carrying out tasks. Then, there is self-evaluation, which determines the effectiveness of a person’s appearance after carrying out a task. The last is self-testing, which determines the effectiveness of language use and its shortcomings.

   At least listeners must use three skills as an experience in listening (Yip & Fisher, 2022) as follows.

1. **Processing sound/perception skills**
   In complete sound processing, it does not only involve sound. However, we must also pay attention to intonation, speed of delivery, word patterns, grammatical categories of words, cohesive mean, and so on.

2. **Processing meaning/analysis skill**
   This part is important. Although when we hear, we lose grammar, the meaning will remain in the more extended memory. Richards in Hanifa 2014 says memory is closely related to proportions and not related to sentences. When listening, the listener will categorize the speech received into meaningful parts. Then, the listener will also predict the speaker’s words and organize the information in memory.

3. **Processing knowledge/synthesis skill**
   Context refers to the actual events in the environment the role relationships between speakers and listeners with each other. In addition, there is also the role of language knowledge related to
knowledge of the target language and using auditory experience to understand the message. Then, context plays an important role because it provides boundaries of references, behaviors, and themes. The listening process requires contextual information and knowledge so that listeners can guess, organize, and conclude the meaning of the context.

The word media comes from the Latin word medium. Media refers to anything that is used to transfer information from a source to a receiver. Furthermore, the media can be defined as an instructional system used in teaching (Andriani, Ardiana, & Firman, 2022). Media is used to facilitate teachers in applying learning objectives in the classroom. Teachers can determine the media according to their needs. Media can also be defined as technologies, symbol systems, and processing capabilities. Media is closely related to electronic and digital technology which has form, features, and functions like television, radio, and internet (Al-Quran & Mohammad, 2022). However, not all media are in the form of electronic technology. For example, textbooks, and newspapers are not included. This shows that media can come from various sources and take many forms.

Media is closely related to communication methods to convey information and allow interaction between students and teachers. Then, the term media in teaching and learning is often replaced with the term learning tools. We understand that media is an important component in the learning process. Furthermore, in the current technological era, teachers can get many advantages from technology in teaching listening compared to traditional things which often make learning boring. Besides being more efficient, modern media can make learning more interesting. Media that can be easily accessed will provide added value and more significant opportunities for teachers and students to become more active in learning (Haleem, Javaid, Qadri, & Suman, 2022).

Today’s technology has great potential to change learning methods (Ghory & Ghafory, 2021). This includes the machine (hardware) and the structure, which is related to the device and the environment. The presence of the media can help increase students’ cognitive and intelligence level. Digital technology provides students with tools and learning experiences (Humairah & Safutri, 2023). The media raises a lot of authentic material for students and can motivate student learning. this will have an impact on the enthusiasm and development of students' knowledge, in addition to the many sources of language learning for students. It is a fact that media and technology enhance a more practical environment than lecture learning (Purwasari & Purnamaningsih, 2022). As a media, the advantage of podcast has been enumerated, including accessing to global learning experiences, exposing to new language content, and engaging with diverse voices (Prasetyo, Dianingsih, & Farhana, 2023).

### a. Kinds of Media in Teaching Listening

Technology greatly benefits teaching listening because it provides opportunities and experiences for students to explore different ways of listening. This allows the emergence of several aspects such as cultural, interactional, critical, and contextual. Technology makes listening more interesting. With the development of technology, this impacts the presence of several new technologies that add variations to the existing technology. Here are some types of media that can be used to teach listening.

1) **Radio**

Radio is one of the media easily accessible and used by students for listening. Listening to radio is rarely done in class because radio has real-time characteristics, so the schedule for learning English is rather demanding. In addition, the issue of copyright is also a problem, so teachers are
reluctant to record the sound that comes from the radio. However, radio remains a potential learning medium to be used.

2) **Audio-Tapes**
An audio cassette is an inexpensive medium that can be used to perform listening activities. Almost every listening book provides audio cassettes as a tool for storing audio. Without audio tabs, teachers will generally find it difficult to provide listening teaching materials for students.

3) **Podcast**
Podcast is digital media containing audio files that can be accessed through applications or websites. Podcasts can be viewed on the website or downloaded via computers and portable players. Audio podcasts are generally a few minutes to hours in length. The podcast format is Mp3. Podcast is generally a recorded conversation, radio show, discussion, interview, or commentary. Then, podcast also contains many topics ranging from hobbies, sports, technology, science, and so on. Students can subscribe and download with internet bandwidth. Once downloaded, students can listen to the audio anywhere and anytime.

4) **Video**
Videos can also be used to teach listening. Video provides rich language contextualization to be used as a medium. Compared to other audio format files, videos offer visual and audio images that can help students understand the context. Videotapes are often used in universities these days because learning uses a hybrid method. Media transitions from text, audio, and video enrich various media types to enhance listening learning.

b. **Podcast**
A podcast is a combination of the words iPod and broadcasting. Podcasts are digital media containing audio/video published online and regularly updated. It is identified by notification to users for new episodes (Tarmawan, Rusdiyana, Salim, & Ulpah, 2021). Podcast are generally in the form of MP3/WAV and are uploaded automatically using RSS (Really simple syndication). Listeners can subscribe and will automatically receive notifications to listen or download. Listeners can access podcasts through personal computers, portable players, or smartphones. Many applications are popping up in the Play Store or app store such as Google podcast, Spotify, Noice, and so on; generally, everything is free. Listeners only need adequate internet access. Then, podcast contains many topics ranging from comedy, education, economics, sports, hobbies, and health, which can be interspersed with music. Listeners can choose the topics they like to listen to. The duration of podcast is generally a few minutes to an hour or more.

How put forward some of the characteristics of podcast is as follows.

1) Podcast uses file-based downloads and streaming.
2) Podcast uses RSS and Atom technology, which are used to automatically download files and provide notifications that files have been updated.
3) Listeners can access email via PC, or portable devices to play MP3 format files.

c. **The Advantages of Podcast**
Podcast is a listening learning media that can be accessed easily. In addition, podcast also provide opportunities to experience more meaningful learning (Hasibuan & Male, 2022). Then, podcast is an authentic learning media that facilitates students to get close to real life. Students can listen to the topics they like wherever and whenever. Podcast are innovative learning media where
students can practice material in a variety of ways, connect different elements in the lesson, and enhance discussion. (Kavaliauskien, 2008) said that podcasts allow listeners to explore (Carrotte, Blanchard, Groot, Hopgood, & Phillips, 2023). This will enable them to find motivation and find material independently through communication technology.

There are several advantages of podcasts as follows.

1) Podcasts are very attractive, and they are authentic learning resources that are interesting and allow students to interact using natural language.
2) Podcasts also provide many themes and levels so that teachers can adapt to the abilities of students. On the other hand, when students are happy with the topic being taught, their motivation will automatically increase.
3) Podcast can be used to develop students’ English skills, especially listening, because students become more open to the language they have acquired. Students will be exposed to a new language even if they only listen for two to five minutes daily.
4) Through podcast, students will listen to oral performances or native speakers. When students listen regularly, they will be aware and pay attention to the accuracy of their pronunciation.
5) Podcast will stimulate students to learn new vocabulary and knowledge from what they listen to.
6) Students will have a new experience in contact with technology. Podcast can be used to improve student learning independence because they can be listened to anytime and anywhere.

d. Podcast Implementation in Listening

The use of podcast as a learning medium has several categories. Podcast for language learning can be categorized into 2 groups (Soffanuddien, Hilmiyati, & Suaidi, 2023). First, it consists of authentic material provided by native speakers or proficient learners. This type is not intended for language learning but refers to news, sports, or radio programs. Second, it is designed for language learning. This group is further divided into materials designed for a general audience that teachers create for their classrooms and materials designed for independent learners who are not enrolled in the course.

Then, the teacher can uses several podcast platforms, websites, books, or applications as podcast media to teach listening. The implementation is as follows.

1) The teacher introduces what is a podcast.
2) The teacher and students discuss a brief review of the topic using their prior knowledge.
3) The teacher shares the work sheet to the students.
4) The teacher asks the students to do the listening in pairs and give instruction to make a note the vocabulary from the audio.
5) The teacher asks the students to mention the existing vocabulary.
6) The students listen to the audio and do the task.
7) The teacher and the students review about the task.

The researchers conducted an observation and interview with an English teacher of SMP N 5 Jepara, Miss Lina Listyaningrum, S.Pd. on June 15, 2021 to find out the problems faced by students in learning English. From the interview, the teacher explained that the lowest skills were listening and speaking. In listening skills, students had difficulty understanding the pronunciation of vocabulary in English audio. Then, students also showed low vocabulary mastery. Students also
rarely got listening material because most of the material was reading and writing. The teacher explained that she only applied two or three listening activities in one semester. Then, the teacher also had difficulty in finding suitable listening teaching materials because the school does not provide listening teaching materials.

One of the learning media that can be used to solve student problems is podcast learning media. A podcast is a digital media containing audio files where people can hear a specific topic. The podcast has several advantages, including podcasts that can be downloaded and listened to anytime and anywhere. In addition, the podcast has a wide variety of topics and information. The methods and conversations in podcasts are also considered more interesting, so the material presented is easy to attach. Based on this explanation, podcasts are regarded as the right media to help students learn to listen (Abdulrahman et al., 2018). Therefore, this study focuses on students’ effectiveness of using podcasts on listening skill of 9th grade students of SMP N 5 Jepara.

**METHOD**

This study used a quasi-experimental design. The research population was 9th grade students of SMP N 5 Jepara in the 2022/2023 academic year with 8 classes as the research target. The following is the population in SMP N 5 Jepara.

<table>
<thead>
<tr>
<th>No</th>
<th>Class</th>
<th>Total of students</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>9A</td>
<td>32</td>
</tr>
<tr>
<td>2</td>
<td>9B</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>9C</td>
<td>29</td>
</tr>
<tr>
<td>4</td>
<td>9D</td>
<td>32</td>
</tr>
<tr>
<td>5</td>
<td>9E</td>
<td>32</td>
</tr>
<tr>
<td>6</td>
<td>9F</td>
<td>30</td>
</tr>
<tr>
<td>7</td>
<td>9G</td>
<td>30</td>
</tr>
<tr>
<td>8</td>
<td>9H</td>
<td>30</td>
</tr>
</tbody>
</table>

After obtaining data related to the population, the researcher will determine the research sample. The sample is part of the numbers and characteristics that is possessed by the population (Creswell & Creswell, 2018). The sample must represent the data correctly because the conclusion from the sample will be generalized. Then, the sampling technique is a technique where the researcher takes a sample to be the object of research. In this study, the researcher uses non-probability sampling as the technique where each element of the population does not have the same opportunity to be a sample. The type of probability sampling chosen by the researcher is purposive sampling or judgment. This sampling technique emphasizes sampling with certain consideration from the researcher. The researcher takes two classes that have the similar ability, namely class 9H as the experimental class and class 9G as the control class.

Each class consisted of 30 students. Then, the sampling technique used was purposive sampling. This study had two variables: podcast as the independent variable and listening skill as the dependent variable.

<table>
<thead>
<tr>
<th>Table 1. Students’ population of class IX</th>
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<tbody>
<tr>
<td>No</td>
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<tr>
<td>1</td>
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<td>7</td>
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<td>8</td>
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</tbody>
</table>

01 = Pretest experimental class
In this study, the experimental class was taught using podcast. Meanwhile, the control class was taught using conventional media. The researcher applied three stages in this research: pre-test, treatment, and post-test. The pre-test was given at the beginning of the meeting before treatment and the post-test was given at the end of meeting after treatment.

Then, in data collection, the researcher used a listening test on the pre-test and post-test. The instrument used by the researcher was a test in the form of multiple choice and fill-in-the-blank. Before conducting the pre-test, the researcher tested the instrument to students in class 9F to determine the validity and reliability of the instrument. After that, the researcher conducted pre-test, treatment, and post-test. The pre-test was intended to determine the students' initial competence in listening skills. Meanwhile, a post-test was held to determine the progress of improving students' listening skills after treatment.

Then, data analysis was carried out using the statistic calculation on SPSS. At this stage, the researcher conducted normality test, homogeneity test, and independent t-test. The normality test was conducted to determine whether the data had a normal distribution. Then, homogeneity test was conducted to determine whether the data was homogeneous. Finally, the researcher conducted a T-test. This test aims to determine whether there is a significant difference in the use of podcast on students' skills or not. In this test, the average post-test scores of students in the experimental class and the control class were compared.

The researcher uses the product moment correlation on the IBM SPSS to measure the validity of the instrument with the following formula.

\[ r_{xy} = \frac{N \sum xy - (\sum x)(\sum y)}{\sqrt{N \sum x^2 - (\sum x)^2}(N \sum y^2 - (\sum y)^2)} \]

Explanation:
- \( r_{xy} \) = coefficient correlation
- \( N \) = Total of students
- \( x \) = Item score
- \( y \) = Total score

Furthermore, after the validity test, the researcher also conducts a reliability test to determine consistency to be trusted for stability. This test aims to determine the extent to which the instrument can provide consistent results even though the test is carried out at different times and conditions. This means that when the researcher gives tests to students at various moments, the results are the same. In this test, Cronbach's Alpha in SPSS is used using the following formula:

\[ r_{11} = \left( \frac{n}{n-1} \right) \left( 1 - \frac{\sum a_{ij}^2}{a_{ij}} \right) \]

Explanation:
- \( r_{11} \) = correlation between two instruments
- \( R1/21/2 \) = reability of instrument
1. Pre-test and Post-test

a. Pre-test Data

The researcher's first step was to give the students a pre-test. Researcher conducted this pre-test to determine the initial competence of grade 9 students in listening skills. The researcher carried out the pre-test stage at SMP N 5 Jepara in the ninth grade. In this study, the researcher focused on using podcast media on students' listening skill which is expected to help increase knowledge and vocabulary mastery through listening learning. Then, the researcher involved classes 9 H (experimental class) and 9G (Control class). The researcher conducted a pre-test in class 9H on October 5, 2022, and class 9G on October 7, 2022. The researcher conducted a pre-test at the first meeting in the first session in each class. In this pre-test, the researcher used 30 questions consisting of 2 types of questions, namely multiple choice and fill-in-the-blank. Researcher played the audio podcast through a laptop and speakers in the classroom, where each audio was played 2 times.

b. Treatment

After conducting the pre-test, the researcher began to treat the experimental and control classes. The treatment in the experimental class was carried out by teaching listening using podcast media. Meanwhile, the control class was taught using conventional methods and media.

1) Experimental Class

The researcher gave a podcast treatment in class 9H (experimental class) on October 5, 2022 in the second session of the first meeting after conducting the pre-test. The researcher used the lesson plan as a guide for implementing the treatment, as seen in Appendix 3. First, the researcher performed an apperception by asking students what listening and podcast are. Then, in the main activity, the researcher explained the material about listening, podcast, and strategies in listening through powerpoint. After that, the researcher gave the students an example of an audio podcast and asked some audio-related questions.

Then, the researcher gave the second and third treatment sessions at the second meeting, October 6, 2022. At this meeting, the researcher started the pre-activity by asking about the expression of agreement and disagreement to students. After that, in the main activity, the researcher explained the use of expressions of agreement and disagreement. The researcher also reviewed the steps and strategies in listening to audio podcast and in answering questions from the audio. Then, the researcher began to move to the stage of the listening process with the material of agreement and disagreement.

In the listening process, the researcher applied 3 phases: pre-listening, while-listening, and post-listening. First, the researcher provided some keywords from the audio podcast during the pre-listening. At this stage the researcher asked the students about some of these vocabularies to the students. It also aimed to determine the students' prior knowledge. After that, the researcher asked the students to pair up with their classmates. The researcher gave instructions to each pair to record 5W + 1H vocabulary, topics, and information from the podcast audio that will be played. Then, the author played an audio podcast of agreement material about using a smartphone. After that, students were asked to find vocabulary or information from the audio podcast. In this process, students and researcher discussed the vocabulary that has been found. This activity is carried out to improve students' vocabulary mastery and train students' hearing.

Then, the second phase was while listening. In this phase, the researcher shared the exercises to the students. The researcher played an audio podcast, and the students were asked
to do the exercises. Then, the third phase is post-listening. In this phase, the researcher and students discussed the exercises they were doing together. Then, the researcher gave feedback and asked what information had been learned. After learning, the researcher distributed audio barcodes to students so that students could practice listening to podcast at home.

Furthermore, the researcher gave the fourth session of the podcast treatment at the third meeting, which was on October 11, 2022. The researcher re-played the audio podcast on health and education in this treatment. After that, the researcher asked the students to record the vocabulary and information obtained from the audio. After that, the researcher and students discussed the vocabulary found. At the end, students listened to audio podcast, worked on questions, and discussed the questions.

From the treatment, students were more motivated to participate in listening learning using podcast because the audio podcast played by the researcher contained many topics related to everyday life. In addition, students' vocabulary mastery can increase. Students are also interested because podcast involve the use of technology.

2) Control Class

In addition to treating the experimental class, the researcher also gave treatment to the control class (9G) on October 7, 2022. In the treatment process, the researcher did not use podcast to teach listening. Researcher applied conventional treatment in the form of audio lingual method. The method used by this researcher was the same as that used by the teacher when teaching listening in class. Researcher did live listening without media in class and used repetition technique. The researcher read sentences or dialogues, then the students repeat what the researcher said.

In the first session at the first meeting, the researcher explained the agreement and agreement material to the students. Then, the researcher read the dialogue or expressions of agreement and disagreement directly in front of the class and the students listened. After that, the students repeated what the researcher said. Students are also asked to identify expressions of agreement and disagreement. Then, students were asked to answer the questions given by the researcher.

Then, in the second and third sessions of the second meeting on October 15, 2022, the researcher still used the same method, namely repetition. However, the researcher also added another activity for students: writing a short dialogue related to agreement and disagreement material. After that, students were asked to read the dialogue in front of the class and other students listened. Then, the researcher asked questions from the dialogue that was read. In the treatment process in class 9G, the researcher did not use media to teach listening.

Next, the researcher gave the fourth treatment session at the third meeting on October 21, 2022. At this meeting, the researcher repeated the repetition technique with a different topic. From the treatment, students looked bored because they were taught continuously using repetition. Students sometimes also lose focus when researchers give treatment.

3) Post-test Data

After doing the pretest and treatment, the researcher conducted a post-test. The purpose of the post-test is to determine the progress of students' listening skills improvement after receiving podcast treatment. The researcher conducted the post-test on October 13, 2022 in class 9H and October 21, 2022 in class 9G. In the implementation of the post-test, each class involved 30 students. Then, in this post-test, the researcher distributed the same instrument during the pre-test. The test instrument consisted of 30 questions in multiple-choice and fill-in-the-blank. The
researcher played the audio podcast on each question 2 times. The following were the pre-test and post-test scores for the experimental and control classes.

RESULT AND DISCUSSION

1. Result
The researcher tried out the instrument to the 9F class students. As a result, from 50 questions, there were 29 valid questions. This question was used for pre-test and post-test. Next, the researchers conducted a reliability test. This reliability test was intended to ensure that the instrument used for the test has good stability and accuracy even though the instrument was used at different times and conditions. The researcher used Cronbach’s Alpha in SPSS to measure the reliability of the instrument that had been tested. Here is the reliability test table formulated in the table of figure 1.

![Case Processing Summary](image)

![Reliability Statistics](image)

Figure 1. Table of Case Processing Summary and Reliability Statistics

The Cronbach’s Alpha analysis results show that the instrument has a value of 0.911 > 0.60. This shows that the test instrument is reliable for use in the pre-test and post-test.

Then, the researcher analyzed the pre-test and post-test scores in the experimental and control classes. The result is formulated in the following table 2.

<table>
<thead>
<tr>
<th>Mean score</th>
<th>Experimental</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>71.66</td>
<td>64.13</td>
</tr>
<tr>
<td>Post-test</td>
<td>86.9</td>
<td>78.9</td>
</tr>
</tbody>
</table>

Based on the table above, it is known that the mean score in the experimental class for the pre-test was 71.667 and the post-test was 86.9. Meanwhile, the mean score in the control class for the pre-test was 64.1333 and for the post-test was 78.9. This indicates that there was a difference in scores because the experimental class was taught listening skills using podcast and the control class was taught using conventional media.

Furthermore, the researcher conducted a normality test using Kolmogorov Smirnov in SPSS. The result is formulated in the following table in the figure 2.
From the calculation results of the normality test, it was known that the Asymp. Sig (2 tailed) value was 0.200 > 0.05. This shows that the students’ test results have a normal distribution because they have a value higher than 0.05. Therefore, the data can be continued to test for homogeneity.

At the homogeneity test stage, it is intended to determine whether the data has the same variance or not. In this study, researcher used the Levene Test. The homogeneity test results are formulated in the table of pre-test and post-test of figure 3 and figure 4.

The data above shows that Levene’s significance value in the homogeneity test was 0.276 > 0.05 at the pre-test and 0.12 > 0.05 at the post-test. This shows that the data has the same variance.
because it has a significance value higher than 0.05. Because the data is homogeneous, the data can be analyzed using the Independent T-Test.

The last, the researcher analyzed the data using the Independent T-test. At this stage, the researcher used the T-test to determine whether there was significance in the application of podcast media. The researcher used the Independent T-test in SPSS. Researchers compared the results of the post-test scores of students in the experimental and control classes to determine if there was a significant difference after being given podcast treatment. The following is the result of the data calculation formulated in the table of figure 5.

![Group Statistics](image)

### Figure 5. The data calculation result

From the data above, it was known that are 30 students in each class. The total number of students involved in this study were 60 students. The mean score in the experimental class was 86.90 and in the control class was 78.90. This showed that there was a difference in the mean scores of post-test in the experimental class and the control class. There was a significant difference in listening skills in the experimental class after being given podcast treatment.

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Score Equal variances assumed</td>
<td>6.777</td>
</tr>
<tr>
<td>Score variances not assumed</td>
<td>4.176</td>
</tr>
</tbody>
</table>

The data above shows that the Levene test's significance value is 0.12 > 0.05, which means that the data is homogeneous. In the equal variances assumed section, the value of sig. (2-tailed) was 0.000 < 0.05. This shows that there is a significant difference in the mean scores of students in the experimental class and the control class. Therefore H0 is rejected and Ha is accepted. Then, the t-observed is higher than the t table, which is 4.176 > 2.000 with a significance level of 5%. Based on these results, podcast media can be applied in 9th grade students' listening learning and
it is a new media for teachers to teach students of SMP N 5 Jepara. The use of podcast can improve students' vocabulary mastery and facilitate students to explore English language skills.

2. Discussion

In the discussion section, the researcher discusses the findings that are used to answer the problem formulation. After analyzing the data, the researcher explained the research results conducted at SMP N 5 Jepara.

The researcher started the research by conducting instrument try-out to students of 9F. There were 30 students involved in the instrument try-out. The researcher gave 50 item questions to work on. Then, the researcher analyzed the results of the try-out instrument through the validity test in SPSS. The result showed that there were 29 valid items. After that the researcher continued to the reliability test. In the reliability test stage, Cronbach's Alpha value was obtained at 0.911 with (N=30) > r table 0.60. This shows that the instrument used by the researcher was reliable. Furthermore, the researcher used these 29 valid and reliable questions to collect data on the pre-test and post-test.

After that, the researcher conducted a pre-test, treatment, and post-test. In this process, the researcher conducted research for 6 meetings with details of 3 meetings in the experimental class and 3 meetings in the control class. The researcher held a pre-test in 1 session, treatment in 4 sessions, and post-test in 1 session.

The mean scores of students in the experimental class were 71.67 in pre-test and 86.90 in post-test. Meanwhile, in the control class, the pretest results were 64.13 and the post-test results were 78.90. This means that there is an improvement in student scores. These results are in line with research conducted by Wulandari & Syaya (2021). Podcasts significantly improve students' listening skills. The mean post-test score in the experimental class increased when compared to the mean pre-test score. Through podcast, students are more familiar with pronunciation because podcast contains daily conversations in real life. In addition, students are also exposed to meaningful learning because podcast is an authentic learning resource (Yoestara & Putri, 2019).

Then, in the normality test, the researcher used Kolmogorov Smirnov to determine the data distribution. The calculation results showed that the value of sig. was 0.200 > 0.05 which means that the data for both classes is normally distributed so that the data can be tested for homogeneity.

Furthermore, the homogeneity test using Levene statistic obtained a sig value on pre-test was 0.276 > 0.05 and a sig value on the post-test was 0.12 > 0.05. This indicated that the data was homogeneous or has the same variance. These results have also met the prerequisites for conducting an independent t-test.

Finally, the researcher conducted an independent t-test. This test was conducted to determine the significant difference and effectiveness of using podcast on the listening skills of 9th grade students of SMP N 5 Jepara. The independent t-test results obtained a sig 2 tailed value of 0.000 < 0.05. Then, the results of the t observe are higher than t table 4.176 > 2,000 with a significance level of 5%. This means that ho is rejected and ha is accepted. So there is a significant difference in the use of podcast for students in listening skills. These results are in line with the results of research from Prasetyo, et al., (2014) where podcast has a significant and positive impact on students' listening skills. Then, podcast is also effective for improving students' listening skills. Students' vocabulary mastery can increase significantly. In addition, with the use of podcast, students can learn and practice by listening to audio podcast independently through their gadgets. Furthermore, podcast is also easy to use and simple. In learning treatment, students are also more motivated and interested in podcast because they have many topics. Through
listening, students apply their imagination to get a picture of what they are listening to (Abdulrahman et al., 2018). Through podcast, students can learn new vocabulary and content knowledge from activities and assignments in podcast. In the treatment, several activities such as sharing and discussion in answering listening (Ramli & Kurniawan, 2018).

CONCLUSION
In this study, the researcher used a quasi-experimental research with a non-equivalent control group design. The purpose of this study was to determine whether the use of podcasts is efficacious in improving students' listening skills. This research was conducted at SMP N 5 Jepara and involved grade 9 students. This study had two classes, namely class 9H as the experimental class and class 9G as the control class. The experimental class received podcast treatment. Then, two statements of the problem can be answered, namely "Is there any significant difference of using podcast on listening skill of 9th grade students of SMP N 5 Jepara?" and "Is it effective of using podcast on listening skill of 9th grade students of SMP N 5 Jepara?"

Based on the results of statistical calculations in the previous chapter, there is a significant difference in the scores in the experimental class taught using podcast and the scores in the control class not taught using podcast. The mean post-test score in the experimental class is higher than in the control group (86.9 > 78.9). It indicates that there is a significant difference of using podcast on listening skill of 9th grade students of SMP N 5 Jepara. Then, the result of sig 2 tailed value is 0.000 < 0.005, meaning that ha is accepted and ho is rejected. In addition, the value of to is 4,176 > 2,000. This shows that t observe is higher than t table with a significance level of 5%. It can be concluded that podcast is an effective media to improve the listening skills of 9th grade students of SMP N 5 Jepara. Podcast can also improve students' vocabulary mastery. Furthermore, podcast is easy and a useful media to apply in listening learning.

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