

Developing a Podcast Application as a Platform to Teach Speaking Using Think-Pair-Share Strategies at Junior High School Pekanbaru

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Abstract:

This study addresses the integration of digital technology in English language teaching, focusing on podcast applications as an alternative platform for speaking practice. The research was conducted at a Junior High School in Pekanbaru, Indonesia, using the Think-Pair-Share (TPS) strategy as a pedagogical approach. A mixed-method research design was applied, combining quantitative and qualitative data collection. The ADDIE model guided the development and implementation of the podcast application. Data collection involved questionnaires, podcast tasks, and validation by media, material, and language experts. The findings revealed that the podcast application met the validity and feasibility criteria. The effectiveness was evident from students' increased motivation and improvement in speaking performance. Students also expressed positive responses toward the use of podcasts in learning.

The integration of podcasts as a digital platform to teach speaking using the TPS strategy was valid, feasible, and effective in enhancing students' speaking skills at the junior high school level.

Key Word: *podcast application, speaking, Think-Pair-Share, English language teaching, TPACK, ADDIE.*

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I. Introduction

The rapid growth of digital technology has reshaped education, offering innovative tools for teaching and learning (Ahmadi, 2018; OECD, 2012). One such tool is podcasting—an easily accessible medium that can provide authentic listening materials and foster language practice (Phillips, 2017; Clarke et al., 2020). Podcasts, defined as digital audio or video files for repeated listening, have gained popularity as an educational resource in higher education (Barnes et al., 2021; Lee et al., 2008). However, their application in junior high school contexts remains under-researched, despite their potential to address challenges such as limited classroom time and large class sizes (OECD, 2012). The use of podcasts aligns with connectivism, which emphasizes the role of technology in fostering networked learning (Siemens, 2008), and with TPACK, which underscores the integration of technology, pedagogy, and content knowledge (Mishra & Koehler, 2006). Previous studies show that podcasts can improve speaking fluency, pronunciation, and confidence (Mohammadzadeh, 2010; Yeh et al., 2021), while also reducing speaking anxiety (Knight, 2010).

Think-Pair-Share (TPS), a cooperative learning strategy, can further enhance speaking opportunities by encouraging students to think individually, discuss with a partner, and share with the class (Lyman, 1987; Svinicki & Janes, 2011). Studies have shown that TPS promotes active engagement and collaborative learning (Fauzi et al., 2021; Hamad, 2017). Despite these findings, research on integrating podcasts with TPS at the junior high school level in Indonesia is limited.

This study addresses this gap by developing a podcast application integrated with TPS to teach speaking in a junior high school setting. The research aims to: (1) assess the validity and feasibility of the podcast application; (2) evaluate its effectiveness in improving students' speaking skills; and (3) analyze students' responses to podcast-based learning activities. This study aims to address this gap by developing a podcast application integrated with the TPS cooperative learning strategy to teach speaking in a Junior High School in Pekanbaru.

II. Material And Methods

A mixed-methods research design was used to ensure comprehensive data collection and analysis (Creswell & Plano Clark, 2011). The research was conducted at SMPIT Imam An-Nawawi Junior High School in Pekanbaru, involving 32 ninth-grade students selected through purposive sampling (Sugiyono, 2012). This class was chosen due to its readiness to adopt new media in English language learning. The study followed the ADDIE model (Morrison, 2010), which consists of five stages: (1). Analysis: Identified challenges in speaking practice, such as large class sizes and limited speaking opportunities (OECD, 2012). Conducted interviews with English teachers and surveys with students to determine needs and digital literacy levels. (2). Design: Created a podcast framework using Anchor and Spotify platforms, integrating content aligned with the school curriculum and culturally relevant topics (Suharsimi Arikunto, 2013). (3) Development: Produced podcast episodes validated by media, material, and language experts (Edirisingha et al., 2008). Episodes included authentic conversations and pronunciation practice.

(4).Implementation: Integrated podcasts into English classes using TPS activities (Lyman, 1987). Students listened to podcasts, discussed ideas in pairs, and shared insights with the class, while teachers facilitated and provided feedback. (5)Evaluation: Collected data through expert validation sheets, questionnaires (both open-ended and Likert-scale), and classroom observations. Quantitative data were analyzed descriptively; qualitative data were analyzed thematically (Ridwan, 2014).

In line with the title of this study, the subject of this study is the ninth grade students of Imam An-Nawawi Junior High School Pekanbaru. Ninth grade students are chosen for the reason that the students are about to be eligible to take the lesson material in research timeline. The total of ninth-grade students in Imam An Nawawi Junior high school Pekanbaru are 96 students that are divided into three classes. The number of subjects of this study is defined using Slovin's sampling formula:

$$n = \frac{N}{1 + N(e)^2}$$

From the total students of 96 students will be taken as subjects in this study. The distribution of the subject is presented as follows:

The Subject of the Research		
9 th Grade	Number of Students	Samples
9A Class	32	-
9B Cass	32	-
9C Class	32	-
Total		32

The sampling technique that will be used is purposive sampling. purposive sampling is a technique to choose a sample based on specific considerations (Sugiyono, 2012). The reason is that purposive sampling is used when the target of the sample has certain characteristics, like the same of English teacher, a method that is used in the teaching-learning process, and students' English scores. In conclusion, there are 96 students will be taken as subjects and just only for small-scale trials that is one class consisting of 32 students and data were analyzed using descriptive statistics and thematic analysis. This study was conducted in July 2024 to June 2025 at SMPIT Imam An-Nawawi Pekanbaru. This school is a private school located on Marsan Sejahtera street, Tampan district, Pekanbaru city, Indonesia

Procedure methodology

The research methodology of this study was through questionnaires and documentations. To get the qualitative data, the questionnaires were distributed to all students in online way using Google Form to ease distribution and to target more participants to complete it. To validate the product of this study, the questionnaires were also administered to language, content, and design validator experts which also to obtain the quantitative data. While documentation was used to a record of past events. This documentation is in the form of photos of SMPIT IMAM AN-NAWAWI students in the learning process using interactive learning media based on Podcasts and when filling out the learning media assessment. Whist podcasts design itself is as the main instruments of this study and it accessible <https://open.spotify.com/show/6S9kyp2e4RBlw9lVTvbLi1>

Statistical analysis

The data analysis in this research employs both qualitative and quantitative techniques. Qualitative data are obtained from validator input during the validation stage, input from subject matter experts, media experts, and language experts. Quantitative data, on the other hand, represent the results of developing a product in podcasts to teach speaking. Data obtained through research instruments during testing are analyzed using statistics, with the aim of understanding the data further. The results of the data analysis are used as the basis for revising the developed product.

The response questionnaire is filled out by teachers and students. It consists of semi-open-ended questions structured with a title, researcher's statements, respondent identities, filling instructions, and question items. The response questionnaire provides quantitative data that can be processed by presenting percentages using the Likert scale as a measurement scale. This scale is composed of statements followed by five responses. The measurement scale for development research has been modified from Ridwan. For quantitative analysis purposes, responses can be scored as shown in table below:

Scoring Evaluation for Answer Choices		
No.	Quantitative Analysis Score	Scores
1	Very Good	5
2	Good	4
3	Fair	3
4	Poor	2
5	Very Poor	1

Adopted: Riduwan, *Dasar-Dasar Statistik*, (Bandung: Alfabeta, 2014) h.39

Scores ranging from one to five are given for responses ranging from very good, good, fair, poor, to very poor agreement, representing positions from very positive to very negative. The measurement scale that will be used in this research is interval. Interval data can be analyzed by calculating the average responses based on scoring each response from the respondents.

$$\text{Percentage of respondent answers} = \frac{\text{Total score obtained}}{\text{Highest score possible}} \times 100 \%$$

The average scores from the assessment are then calculated from a sample of trial subjects and converted into assessment statements to determine the quality and usefulness level of the resulting product based on user opinions. The conversion of scores into assessment criteria can be seen in the table below.

Table 9

Score Percentage (%)	Interpretation
81% - 100%	Very Suitable
61% - 80%	Suitable
41% - 60%	Fairly Suitable
21% - 40%	Not Very Suitable
0 % - 20%	Very Not Suitable

Learning Media Suitability Scale Adopted from Suharsimi Arikunto, *Manajemen Pendidikan*, (Jakarta :PT. Rineka Cipta, 2013), h.44.

III. Result

Expert Validation

Expert validation results showed that the podcast application met the criteria for content accuracy, language appropriateness, and technical layout (Edirisingha et al., 2008). Mean validation scores exceeded 4.0, classified as “worthy” for use in teaching.

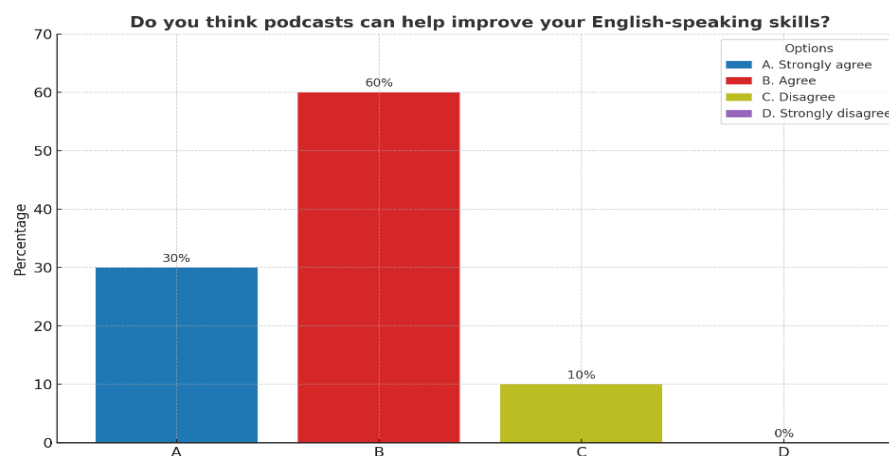
Students' Speaking Performance

Implementation of the podcast application improved students' speaking skills, particularly in fluency, vocabulary, and pronunciation. These findings align with research showing podcasts can enhance language performance (Mohammadzadeh, 2010; Yeh et al., 2021).

Students' Responses

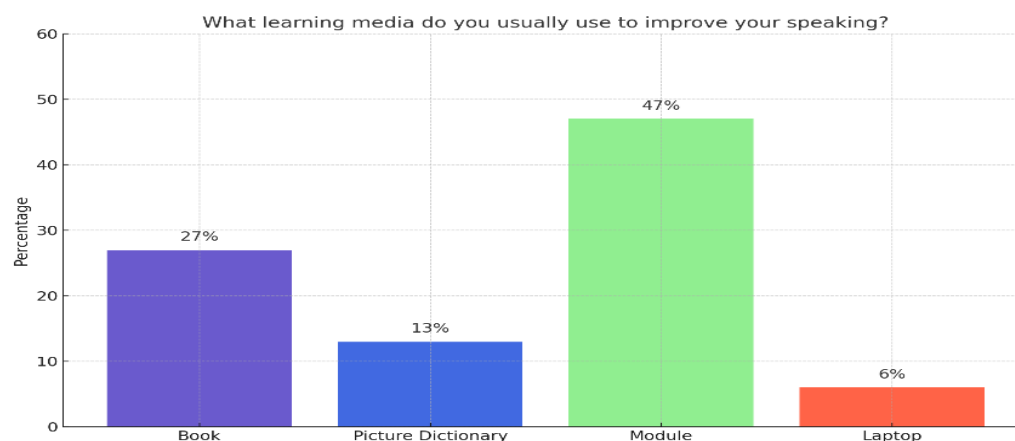
Students expressed positive responses to podcast-based learning, reporting increased motivation and confidence. These findings are consistent with studies by Knight (2010) and Jovanović (2021), which noted that podcasts can reduce speaking anxiety and create a more engaging environment.

Validity and Feasibility: The podcast application was validated by media, material, and language experts and met the required standards for educational use. **Effectiveness:** The implementation of the podcast application led to improvements in students' speaking skills, particularly in fluency and confidence. **Students' Responses:** Most students reported that the podcast-based learning activities were engaging, motivating, and improved their speaking performance. Related to the students' necessity to practice speaking, the students at SMPIT Imam An-Nawawi podcasts is one of the applications that can give change to improve their speaking skill.

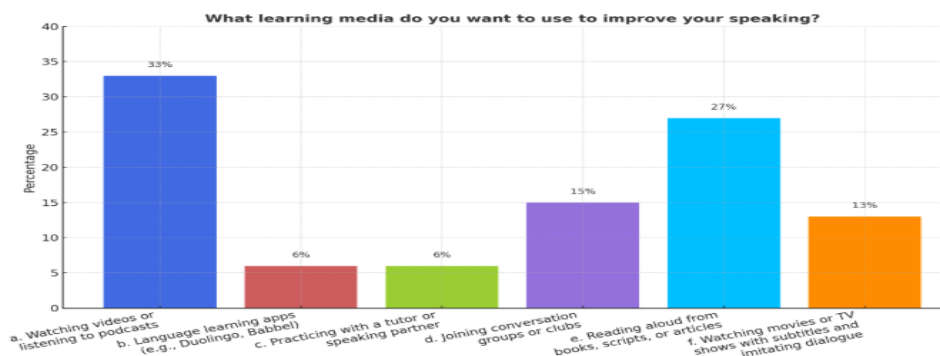


Related to the students' lack in speaking practice, the students believe that speaking is one of the most difficult aspects to be mastered because the students of Imam An-Nawawi Junior High School think that they are less of using interesting learning media when practice English speaking.

As we can see from the questionnaire response:



Related to the students' wants in learning speaking, the students of Imam An-Nawawi believe that podcast is one of the most appropriate platform to be able to speak English fluently and confidently.



The researcher validated the podcast for ninth-grade students of Imam An-Nawawi Junior High School by providing expert judgment questionnaires related to the podcast designed by the researcher. The experts consisted of linguists namely Mathew Dina. The material expert, namely Rizky Agustin and Design Expert, namely Didik Siswanto. This is done so that the podcasts designed can be used to improve the speaking practice of students at SMPIT Imam An-Nawawi Pekanbaru. The results of expert validation can be seen in the table below:

Question Number	Score	Question Number	Score
1	5	8	4
2	4	9	4
3	4	10	5
4	4	11	5
5	4	12	5
6	4	13	4
7	4	14	4
Total		60	
Mean Score		4.28	

Based on the data of the expert language validation, it can be seen that the total score is 60 and the mean score is 4.28 classified as “worthy”. This means that the language use of the podcasts designed by the researcher is valid and it has been ready to be used to teach the students’ speaking related to at SMPIT Imam An-Nawawi Pekanbaru.

Question Number	Score	Question Number	Score
1	4	8	4
2	5	9	4
3	5	10	5
4	4	11	4
5	5	12	4
6	5	13	4
7	4	14	4
Total		61	
Mean Score		4.35	

Based on the data of the expert layout validation, it can be seen that the total score is 61 and the mean score is 4.35 classified as “worthy”. This means that the layout of the podcast designed by the researcher is valid and it has been ready to be used to teach the students’ speaking related to technical at SMPIT Imam AN-Nawawi Pekanbaru and it can fulfill the students’ necessity and want in practicing English Speaking.

Question Number	Score	Question Number	Score
1	4	7	4
2	4	8	4
3	4	9	4
4	5	10	5

5	3	11	4
6	3	12	5
Total			49
Mean Score			4.08

Based on the data of the material language validation, it can be seen that the total score is 49 and the mean score is 4.08 classified as “worthy”. This means that the material of the pictorial dictionary designed by the researcher is valid and it has been ready to be used to teach the students’ speaking at SMPIT Imam An-Nawawi Pekanbaru and the material provided can fulfil the students’ necessity and want in practicing their speaking.

IV. Discussion

The study confirmed the potential of podcasts to address challenges in speaking practice at the junior high school level (Barnes et al., 2021; Clarke et al., 2020). By integrating TPS, podcasts facilitated interactive, student-centered learning, consistent with cooperative learning principles (Lyman, 1987; Svinicki & Janes, 2011).

The application also aligns with the TPACK framework (Mishra & Koehler, 2006), emphasizing the importance of integrating technology, pedagogy, and content in English language teaching. Furthermore, podcasts align with connectivism, fostering collaborative networks and autonomous learning (Siemens, 2008).

Student responses in this study echo findings from previous research (Wulan, 2018; Hamzaoğlu & Koçoğlu, 2016), highlighting the role of podcasts in reducing speaking anxiety and fostering a positive, motivating environment. This integration also offers an alternative for large classes with limited speaking practice time (OECD, 2012).

V. Conclusion

The podcast application developed in this study was validated by experts and shown to be effective in enhancing students’ speaking skills and engagement. When integrated with the Think-Pair-Share strategy, podcasts created an interactive, supportive environment that motivated students and improved speaking fluency and confidence. This research supports the integration of podcasts as an accessible, effective tool for EFL speaking practice in junior high schools.

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