



The Development of Podcast in Public Relations Subjects to Enhance Students' Motivation and Learning Outcomes

**Dian Novita Sari, Mohammad Arief, Heny Kusdiyanti, Imam Bukhori*

**Department of Management, Faculty of Economics and Business, Universitas Negeri Malang, Malang, Indonesia*

*Correspondence: E-mail: dian.novita.2004126@students.um.ac.id

ABSTRACT

The rapid advancement of information and communication technology has significantly impacted various sectors, particularly education, necessitating the adoption of innovative approaches to enhance teaching and learning processes. Among these approaches, Spotify audio podcasts have emerged as a promising instructional medium to enrich classroom learning experiences and deepen students' understanding of subject matter. This study aims to develop Spotify audio podcasts as an instructional medium for eleventh-grade MPLB students at SMK Negeri 2 Kota Kediri, evaluate their effectiveness, and compare students' motivation and learning outcomes between those using Spotify audio podcasts and those using other instructional media. This research employed a Research and Development (R&D) method that utilized the ADDIE model, encompassing the phases of analysis, design, development, implementation, and evaluation. Data were collected through expert validations, student motivation surveys, and learning outcomes assessments. Descriptive statistical analysis was conducted to interpret validation and motivation data, while the Wilcoxon test was applied to assess differences in learning outcomes. Results from content and media expert validation indicated high feasibility and effectiveness of the developed podcasts. The study found that Spotify audio podcasts significantly improved students' motivation and learning outcomes compared to traditional instructional media. These findings highlight the potential of Spotify audio podcasts as an innovative and effective educational tool for supporting active learning in vocational education.

ARTICLE INFO

Article History:

Submitted/Received 08 Aug 2024
First Revised 24 Aug 2024
Accepted 04 Nov 2024
First Available Online 28 Nov 2024
Publication Date 01 Dec 2024

Keyword:

Learning Outcomes, Motivation, Research and Development, Podcast.

1. INTRODUCTION

Students' learning motivation is a critical factor in the learning process, significantly influencing their academic achievements. Consequently, innovation in teaching is essential to develop new ideas and techniques that facilitate students' progress in both their learning processes and outcomes (Aurelliana & Nugraha, 2022). One innovative solution is the utilization of diverse and engaging learning media. Learning media can be defined as any tool used to convey messages and stimulate students' focus, thereby encouraging a deliberate and structured learning process (Clark & Mayer, 2023; Smaldino et al., 2019).

Among the most engaging and innovative types of learning media are podcasts, which are the focus of this study. Podcasts, as a form of learning media, are a result of advancements in Information and Communication Technology (ICT) and multimedia, combining elements of sound, text, and images. This combination enhances the delivery of material, making it more engaging, less monotonous, and easier to comprehend (Adisel & Pranansa, 2020; Susilana et al., 2022). Millennials, who are typically responsive to technology, further underscore the relevance of podcasts as an effective learning tool. Podcasts are believed to enhance students' enthusiasm and learning experiences (Hutabarat, 2020; Sotlikova & Haerazi, 2023). As digital audio or video files, podcasts can be uploaded periodically to the internet and accessed through applications or websites (Bottomley, 2015; Morris & Patterson). By focusing on auditory learning, podcasts provide an innovative approach to education, positively impacting both educators and students by improving the quality of teaching and preparation (Aurelliana & Nugraha, 2022; Conroy & Kidd, 2023).

The urgency of this research becomes evident when considering the role of learning motivation as a key indicator of students' academic success. High learning motivation encourages active student engagement, which ultimately contributes to better learning outcomes. In this digital era, conventional teaching methods are often deemed less relevant by millennials, who are accustomed to technology. Therefore, it is crucial to develop learning media that not only accommodates the learning styles of modern students but also enhances their engagement in the learning process.

Learning outcomes, as indicators of students' achievement, are determined by various forms of assessment tailored to their needs and characteristics. These assessments may include written tests, such as multiple-choice questions or essays. The use of appropriate learning media also significantly influences students' academic success (Lee & Choi, 2019; Smaldino et al., 2019). Among the emerging technologies in education, podcasts have gained popularity, particularly through platforms like Spotify. Spotify, a streaming service for audio content, offers diverse media, including music and podcasts (Netti & Irwansyah, 2018). Podcasts support students in understanding learning materials more effectively, providing flexibility in their learning process and boosting motivation (Asmi et al., 2019). Anchor, a platform for creating and distributing podcasts, enables seamless integration with Spotify, making it easier and faster to distribute educational content (Rime et al., 2023; Zellatifanny, 2020). The combination of Anchor and Spotify offers a creative solution for developing modern and effective learning media. Podcasts can be accessed anytime and anywhere through devices such as smartphones, tablets, or laptops, making them a highly flexible learning tool.

In addition, preliminary studies revealed significant technical challenges in the teaching process at SMK Negeri 2 Kota Kediri. Although media such as PowerPoint and printed modules have been used, limited facilities, such as damaged or unavailable LCD projectors, often disrupt the learning process. Interview results indicated that only 18 out of 26 students met

the Minimum Mastery Criteria (Kriteria Ketuntasan Minimal, KKM), suggesting that the effectiveness of the existing instructional media only reached 70%. This condition necessitates an innovative solution that can address technical constraints without compromising the quality of learning.

To overcome these limitations, this study developed an innovative learning medium in the form of Spotify audio podcasts tailored to the Public Relations and Protocol curriculum. The podcast aligns with the Kurikulum Merdeka framework, particularly the component "Applying Public Relations Activities," which emphasizes the practical application of public relations activities. Designed as an alternative to traditional PowerPoint presentations, the audio podcast aims to eliminate reliance on visual equipment like LCD projectors while offering a flexible and engaging learning experience. The development of this medium utilized the ADDIE model, a systematic instructional design approach that allows for iterative improvement. By leveraging audio-based learning, this study addresses technical constraints and seeks to enhance the educational experience for eleventh-grade MPLB students.

A gap analysis of previous research highlights the lack of studies specifically developing Spotify-based podcasts for the Public Relations and Protocol subject at the vocational education level. Earlier research has generally focused on the effectiveness of podcasts in enhancing motivation and learning outcomes (Aziz et al., 2022; Fatih et al., 2022). However, no studies explicitly adopt the ADDIE development model to produce podcast-based learning media integrated within the Kurikulum Merdeka framework. Therefore, this study aims to fill that gap by providing systematically designed learning media that cater to the specific context of the subject.

This study aims to develop Spotify-based audio learning media using the ADDIE development model. The media focuses on the Public Relations and Protocol subject, following the Merdeka Curriculum, particularly the element "Applying Public Relations Activities." The resulting product, titled *Secrets of Efficiency: Automation in Public Relations Management*, includes a playlist of public relations materials, visual illustrations for each episode, relevant sound effects, polls, Q&A sections, and descriptive texts. The introduction of this media is expected to enhance the motivation and learning outcomes of eleventh-grade students in the MPLB expertise program at SMK Negeri 2 Kota Kediri.

2. METHODOLOGY

2.1 Research Design

This study employs a Research and Development (R&D) approach to develop innovative audio-based learning media using the ADDIE model. The ADDIE model ensures a systematic and iterative process through its five stages: Analysis, Design, Development, Implementation, and Evaluation (Branch, 2009). During the Analysis stage, a comprehensive examination of the curriculum, syllabus, learner characteristics, and learning environment was conducted to identify gaps in existing teaching methods, particularly in the OTK Humas and Keprotokolan subject aligned with the Kurikulum Merdeka framework. The Design stage focused on conceptualizing the podcast media, which involved selecting suitable learning materials, drafting innovative instructional scripts, naming the product, and creating a prototype podcast using the Spotify platform. In the Development stage, the podcast was created by recording and editing audio, integrating learning components, and undergoing validation from subject matter, media, and language experts to ensure its quality and usability.

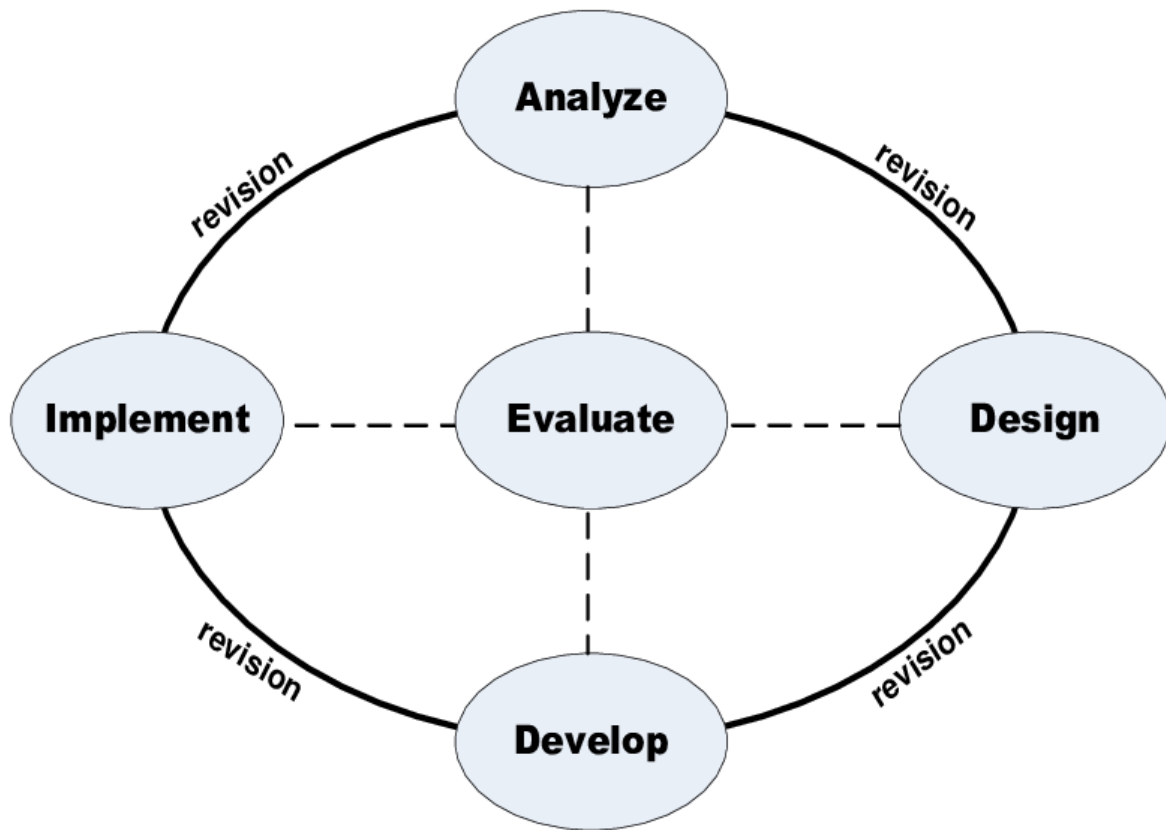


Figure 1. Research and Development Stages Using the ADDIE Model

The Implementation stage involved testing the podcast in a classroom setting to evaluate its practicality and effectiveness. This stage included trials with an experimental class and with a control group. Finally, the Evaluation stage assessed the media based on expert feedback, user trials, and learning outcomes, allowing revisions to be made before finalizing the product.

2.3 Data Collection

Data collection was conducted using multiple instruments aligned with the ADDIE model stages. Expert validation questionnaires were distributed to three experts specializing in content, media, and language to evaluate the podcast's feasibility, clarity, and appropriateness. Feedback from students was gathered through questionnaires during the implementation phase to capture their perceptions of the podcast's effectiveness and usability. Additionally, quantitative data were collected through pre-tests and post-tests administered to both experimental and control groups to measure learning outcomes before and after the use of the podcast. Observations during the implementation phase provided qualitative insights into student engagement, participation, and interaction with the media.

2.4 Data Analysis

The data were analyzed using both quantitative and qualitative methods. Expert validation feedback was analyzed using a Likert scale ranging from 1 (Very Poor) to 5 (Excellent) to determine the feasibility and quality of the media based on content, design, and language clarity. Student feedback was analyzed descriptively to calculate percentages of agreement or satisfaction, providing insights into the usability and appeal of the podcast. Pre-test and

post-test scores were statistically compared using paired sample t-tests to evaluate the significance of the podcast's impact on learning outcomes. Additionally, thematic analysis was applied to observational data and open-ended questionnaire responses to identify patterns in student engagement and areas for improvement. This comprehensive approach ensured a robust evaluation of the podcast's feasibility, effectiveness, and potential for broader application in education.

3. RESULT AND DISCUSSION

3.1 Result

This study aims to develop Spotify audio podcast learning media that is both feasible and effective in enhancing students' motivation and learning outcomes in the Public Relations and Protocol (OTK Humas dan Keprotokolan) subject. The media validation process was conducted by content experts, media experts, and through small group trials to evaluate its feasibility. The validation results, presented in Table 1, indicate that the Spotify audio podcast learning media achieved an average validation score of 87%, categorized as "Valid." Expert validators assigned a feasibility score of 78% for content and 96% for media aspects, demonstrating that the media is highly valid in terms of design and content feasibility.

Table 1. Comprehensive Validation Data

Validation	Percentage	Category
Content Expert	78%	Valid
Media Expert	96%	Highly Valid
Average	87%	Valid

According to the data presented in Table 1, an average validation score of 87% was achieved, while product trials with a small group resulted in an average score of 92%, categorized as highly feasible. Therefore, it can be concluded that utilizing Spotify audio podcasts as a learning medium is suitable for implementation in the Public Relations and Protocol (OTK Humas dan Keprotokolan) course. This medium aims to enhance the motivation and learning outcomes of eleventh-grade MPLB students at SMK Negeri 2 Kota Kediri.

The learning motivation score serves as an indicator of the extent to which eleventh-grade MPLB students at SMK Negeri 2 Kota Kediri are motivated to engage in Public Relations learning activities. This was determined by comparing the experimental group, which utilized Spotify audio podcast media, with the control group, which did not use this audio media. To illustrate students' learning motivation after studying Public Relations material, the researcher employed descriptive statistical analysis. This analysis was conducted for both the control and experimental groups. The distribution of students, the percentage of each motivation category, the classification of learning motivation scores, and the tabulation of learning motivation related to Public Relations activities for eleventh-grade MPLB students at SMK Negeri 2 Kota Kediri are presented in Table 2 below.

Table 2. Distribution Data of Learning Motivation

Descriptive Statistics	Control Group	Experimental Group
Total Students (N)	17	17
Maximum	33	37

Descriptive Statistics	Control Group	Experimental Group
Minimum	16	22
Range	17	15
Std. Deviation	4.226	3.856
Mean	23.88	29.65
Median	24.00	30.00
Variance	17.860	14.868

The analysis results, as illustrated in Table 2, reveal that the level of learning motivation related to Public Relations activities was higher in the experimental group compared to the control group. Differences in learning motivation were evident in the mean, maximum, and minimum scores of students in both groups. In the control group, the average score was 23.88, with a maximum score of 33 and a minimum score of 16. Conversely, in the experimental group, supported by Spotify audio podcast media, the average score increased to 29.65, with a maximum score of 37 and a minimum score of 22. Furthermore, the overall student scores will be categorized based on learning motivation, as shown in the frequency and percentage tables for both the control and experimental groups.

Table 3. Frequency Distribution and Percentage of Learning Motivation Categories

Score	Category	Control Group		Experimental Group	
		Total Students	Percentage (%)	Total Students	Percentage (%)
≥ 75%	Very High	2	11.76	11	64.71
50-74%	High	13	76.47	6	35.29
25-49%	Moderate	2	11.76	0	0
00-24%	Low	0	0	0	0
	Total	17	100	17	100

The learning outcomes were analyzed using the Normality Test and Wilcoxon Test with the assistance of SPSS v.26. These tests were conducted for both the control and experimental groups to identify differences between them. Although identical test questions were administered to both groups, the experimental group referred to material from the Spotify audio podcast learning media, whereas the control group utilized module and PowerPoint media.

The results of the Wilcoxon Test in both groups showed an Asymp. Sig value of 0.039 < 0.05, indicating the acceptance of the hypothesis. This suggests that the use of Spotify audio podcast media has a significant impact on students' learning outcomes. The differences in average scores between the control and experimental groups can be observed in the test results of classes XI MPLB 3 and XI MPLB 2, as detailed in Table 4 below.

Table 4. Test Results Data

Student	Control Group		Student	Experimental Group	
	Score	KKM Achievement (75)		Score	KKM Achievement (75)
1.	90	≥ KKM	1.	90	≥ KKM
2.	100	≥ KKM	2.	90	≥ KKM

Student	Control Group		Student	Experimental Group	
	Score	KKM Achievement (75)		Score	KKM Achievement (75)
3.	100	≥ KKM	3.	100	≥ KKM
4.	90	≥ KKM	4.	100	≥ KKM
5.	100	≥ KKM	5.	100	≥ KKM
6.	80	≥ KKM	6.	100	≥ KKM
7.	90	≥ KKM	7.	100	≥ KKM
8.	90	≥ KKM	8.	100	≥ KKM
9.	60	≤ KKM	9.	100	≥ KKM
10.	40	≤ KKM	10.	100	≥ KKM
11.	80	≥ KKM	11.	70	≤ KKM
12.	50	≤ KKM	12.	100	≥ KKM
13.	90	≥ KKM	13.	100	≥ KKM
14.	90	≥ KKM	14.	100	≥ KKM
15.	100	≥ KKM	15.	90	≥ KKM
16.	100	≥ KKM	16.	100	≥ KKM
17.	100	≥ KKM	17.	100	≥ KKM
Average		85.29	Average		96.47

Based on the information presented in Table 4, the average learning outcome score for the experimental group was 96.47, indicating an improvement in student learning outcomes and a positive response to the Spotify audio podcast learning media. Meanwhile, the control group achieved an average score of 85.29, resulting in a mean difference of 11.18 between the control and experimental groups. This demonstrates the effectiveness of using Spotify audio podcast media in teaching Public Relations and Protocol (OTK Humas dan Keprotokolan) and suggests its potential applicability in other subjects.

3.2 Discussion

The development of the Spotify audio podcast integrated with Artificial Intelligence (AI) and supported by the Anchor platform represents a significant innovation in educational media, particularly for the OTK Humas dan Keprotokolan subject. This study aligns with previous findings that demonstrate the effectiveness of audio podcasts as tools for enhancing learning outcomes by offering flexibility, accessibility, and interactivity (Campen et al., 2020; Mayangsari & Tiara, 2019). Designed to meet the needs of vocational education students, this podcast-based media combines advanced technological features with pedagogical principles to support learning in a dynamic and engaging manner.

One of the primary advantages of this media is its accessibility. Designed with simplicity in mind, the Spotify audio podcast ensures that students can access the learning material anytime and anywhere using a variety of devices such as smartphones, tablets, or laptops. This feature accommodates diverse learning preferences and lifestyles, enabling students to engage with the material at their own pace. Such accessibility aligns with the findings of who noted that mobile-enabled learning platforms like podcasts effectively support self-directed learning and improve student motivation (Habib et al., 2022; Ng & Nicholas, 2018).

The Spotify audio podcast serves as an innovative learning medium designed to enhance students' engagement and understanding of Public Relations and Protocol content. It provides a flexible and accessible platform for students to learn anytime and anywhere. For further exploration, the podcast can be accessed through the following link: Spotify Podcast.

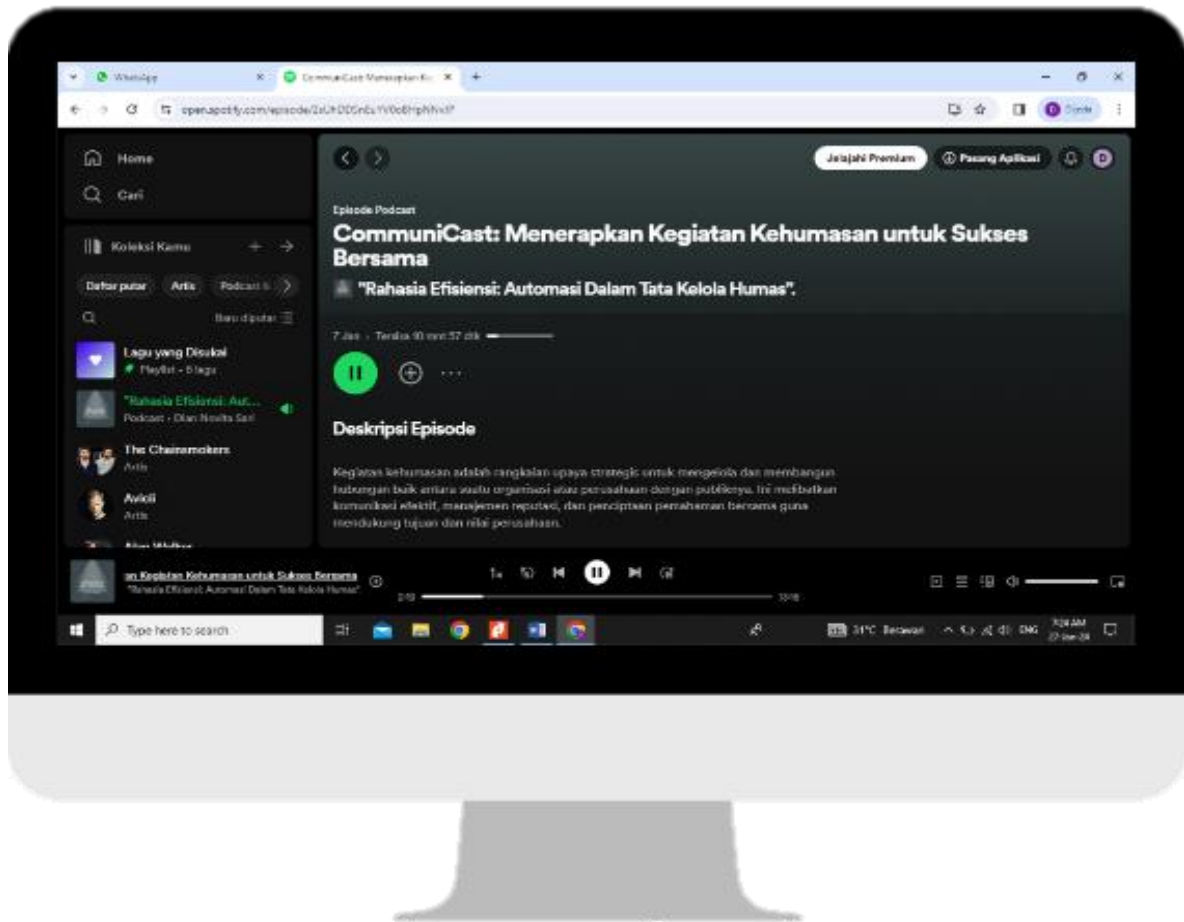


Figure 2. Spotify Podcast Home Display Overview

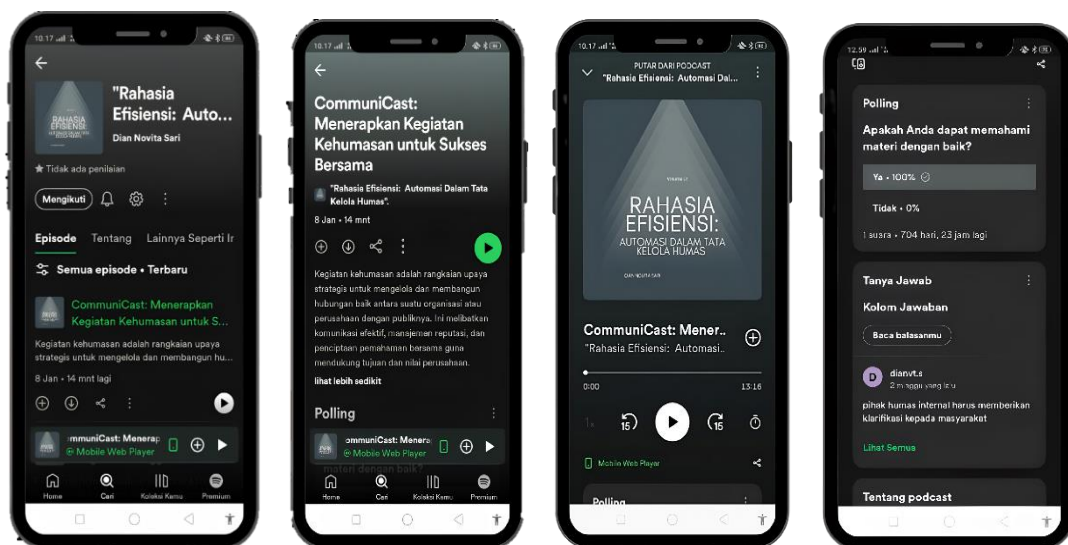


Figure 3. Spotify Podcast Features Overview

The inclusion of brief descriptions alongside the audio material significantly enhances the value of the media by providing students with an overview of key concepts before exploring

them in detail. This dual-mode delivery supports diverse learning styles, particularly auditory and textual learners, and improves both comprehension and retention. The effectiveness of combining multiple modalities in instructional design, which positively impacts learning outcomes, has been well-documented (Clark & Mayer, 2023; Susilana et al., 2022).

This study further contributes to the growing body of evidence regarding the effectiveness of podcast-based learning media in boosting student motivation. The findings indicate that students using the Spotify podcast demonstrated higher levels of engagement and motivation compared to those in the control group. Motivation is a critical determinant of learning success, and prior research has established that innovative and interactive media, such as podcasts, significantly influence both intrinsic and extrinsic motivation (Berestova et al., 2022; Johan et al., 2022; Szymkowiak et al., 2021). By providing a flexible, engaging, and technologically advanced learning tool, the Spotify audio podcast aligns with the preferences of millennial and Gen Z learners, who are highly accustomed to digital and mobile technologies.

Beyond enhancing motivation, this media has proven effective in improving learning outcomes, as evidenced by the significant performance differences between the experimental and control groups. The experimental group, which utilized the Spotify podcast, achieved notably higher average scores than the control group, underscoring the effectiveness of well-designed audio media on cognitive learning dimensions. This finding is consistent with prior studies suggesting that podcasts are particularly effective in delivering structured content in a way that is easy to comprehend and retain (Boling & Hull, 2018; Sotlikova & Haerazi, 2023).

The use of Anchor as a platform for podcast creation and distribution further highlights the importance of leveraging user-friendly technology in educational innovation. Anchor seamlessly integrates with Spotify, ensuring broad accessibility with minimal barriers. This collaboration underscores the potential of combining audio media with advanced distribution technologies to expand the reach and effectiveness of educational tools (Alam & Mohanty, 2023; Al-Hail et al., 2024; Zellatifanny, 2020).

Integrating Spotify audio podcasts into the learning process demonstrates significant potential for enhancing educational outcomes, particularly in the cognitive domain. While learning outcomes span cognitive, affective, and psychomotor dimensions, the cognitive aspect often serves as the primary measure of a new learning medium's effectiveness. This study assessed the cognitive impact of Spotify audio podcasts by administering multiple-choice tests to both the experimental and control groups. The experimental group utilized Spotify audio podcasts as a learning tool, while the control group relied on conventional methods such as textbooks and PowerPoint presentations. This comparison underscores the effectiveness of innovative audio-based learning media in improving student comprehension and retention.

The results align with prior research suggesting that podcasts foster improved cognitive engagement and learning outcomes. Podcasts provide structured and concise information, facilitating deeper understanding and retention compared to traditional methods (Gunderson & Cumming, 2023; Meden et al., 2024; Wakefield et al., 2023). Additionally, the flexibility and accessibility of audio media allow students to revisit content at their convenience, reinforcing their learning (Besser et al., 2023; Van Slyke et al., 2023). This self-paced learning capability is particularly valuable in vocational education, where students often require additional time and resources to grasp complex concepts.

In this study, students from the experimental group, class XI MPLB 3, consistently outperformed those in the control group in cognitive assessments. This outcome is likely due to the interactive and engaging nature of podcasts, which include dynamic audio features such as storytelling, tone modulation, and sound effects to enhance the learning experience. These characteristics align with the multimedia learning theory, which suggests that combining auditory and visual elements improves cognitive processing and retention (Clark & Mayer, 2023; Johan et al., 2020).

Moreover, audio podcasts effectively address common challenges in traditional learning methods, such as limited access to resources and decreased student motivation. The experimental group exhibited higher engagement and motivation, likely due to the convenience and appeal of the podcast format. Motivation is a critical component of learning success, driving students to actively engage with the material (Gute & Wainman, 2019; Siegllová, 2019). By making the learning process more flexible and accommodating, Spotify podcasts create an environment conducive to cognitive development.

4. CONCLUSION

The study concludes that the development of Spotify audio podcasts as a learning medium for OTK Humas and Keprotokolan effectively enhances both motivation and academic achievement among eleventh-grade MPLB students at SMK Negeri 2 Kota Kediri. Validation results confirm that the media is feasible and suitable for integration into teaching and learning activities, providing an engaging, flexible, and interactive learning experience. The application of this innovative medium resulted in a significant improvement in students' learning outcomes, with the experimental group outperforming the control group in both academic performance and motivation levels. These findings affirm the efficacy of Spotify audio podcasts as a pedagogical tool for addressing learning gaps and fostering enhanced student engagement.

The impact of this research lies in its contribution to integrating modern technology into vocational education, specifically aligning digital media with the needs of the Kurikulum Merdeka. It underscores the potential of podcasts to deliver accessible, scalable, and inclusive learning solutions that cater to the technological preferences of millennial and Gen Z learners. Beyond the classroom, this research highlights the broader implications of utilizing digital platforms such as Spotify to advance educational innovation and mitigate resource limitations in traditional teaching methods.

For future research, it is recommended to explore the scalability of this medium across various subjects and educational levels, particularly in areas requiring applied skills or conceptual understanding. Further studies could examine the long-term effects of audio podcast media on critical thinking, collaborative learning, and self-directed learning skills. Moreover, integrating multimedia features such as quizzes or interactive feedback into the podcast framework could enhance its effectiveness and expand its utility as a comprehensive educational tool.

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