

# DEVELOPMENT OF PODCAST-BASED TEACHING MATERIALS AS A DIGITAL LEARNING INNOVATION FOR ISLAMIC COMMUNICATION AND BROADCASTING STUDENTS AT IAIN METRO

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## Abstract

This study aims to develop podcast-based teaching materials as an innovative digital learning media for students of the Islamic Communication and Broadcasting Study Program (KPI) at IAIN Metro. The background of this study is based on the low utilization of interactive digital media in the learning process and the absence of the use of podcasts as a means of two-way communication between lecturers and students. The research method used is Research and Development (R&D) with a development model that includes the planning stage, product design, design validation, product revision, field trials, as well as dissemination and implementation. The product developed is educational podcast content resulting from a collaboration between Shawtuna FM Radio and the Spotify application, with learning themes from several courses such as Introduction to Communication Science, Political Communication, Journalistic Photography, and Master of Ceremony. The validation results showed a very high level of feasibility, with a percentage of assessments from material experts of 86.6% and media experts of 89.8%. Field trials on 37 students resulted in an average feasibility of 87.7% with the category of "very feasible". Podcasts have proven effective in increasing students' understanding of lecture materials and creating interactive, flexible, and engaging learning. This research confirms that podcasts can be an innovative alternative to support the digitalization of learning in Islamic religious universities.

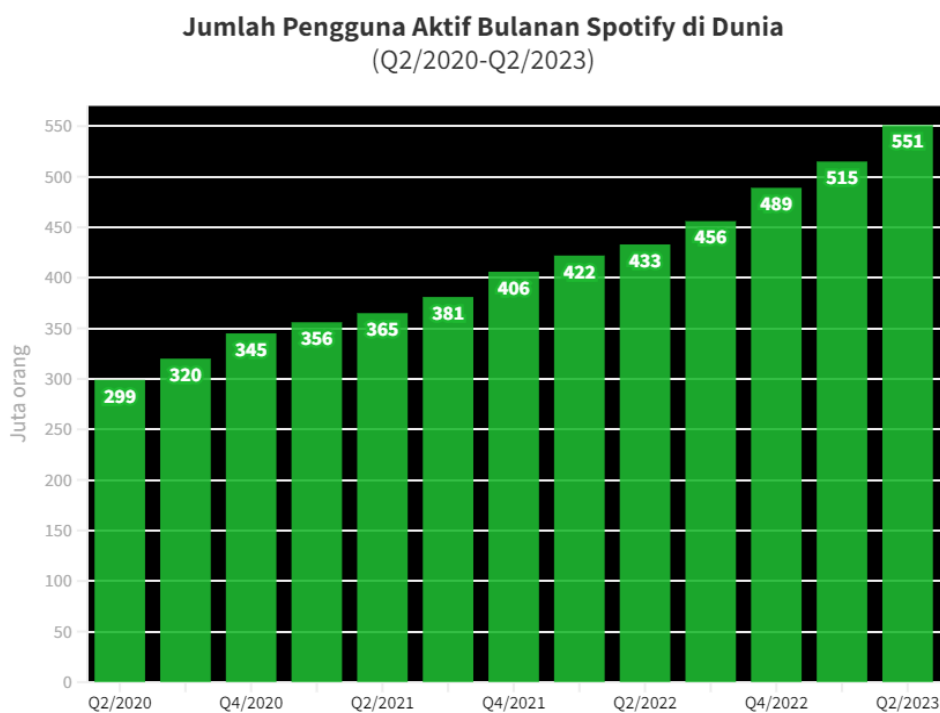
**Keywords:** *Teaching materials, podcasts, Digital learning, Islamic Communication and Broadcasting.*

## INTRODUCTION

The development of information and communication technology in the era of the Fourth Industrial Revolution has brought significant changes to the world of education. In this era, educational institutions face challenges in developing new

learning approaches. Institutions are now required to integrate digital technologies such as the Internet of Things (IoT), computing in learning, and the digitalization of instructional processes, so that learning becomes more interactive and globally accessible.<sup>1</sup> The world of education requires a generation that is innovative, creative, and competitive. This can only be achieved by optimizing the use of technology as an educational tool that is expected to produce relevant outcomes in line with the developments of the times. In the current era of the Industrial Revolution, integrating podcasts into the learning process is one of the innovations in education.

Podcasts are one of the interactive communication methods in digital media that have become increasingly popular among university students. As an audio-based medium that can be accessed online, podcasts offer convenience, allowing students to listen to content anytime and anywhere, especially since podcasts are available on the Spotify platform. Spotify remains one of the leading global streaming markets and is one of the applications that provides a dedicated space for podcasts. According to data, Spotify had 551 million users in the second quarter of 2023, representing an increase of 27.3% compared to the previous year.<sup>2</sup>



Source: Spotify data

IAIN Metro is one of the higher education institutions in Metro City that has the vision of becoming an excellent Islamic higher education institution with socio-

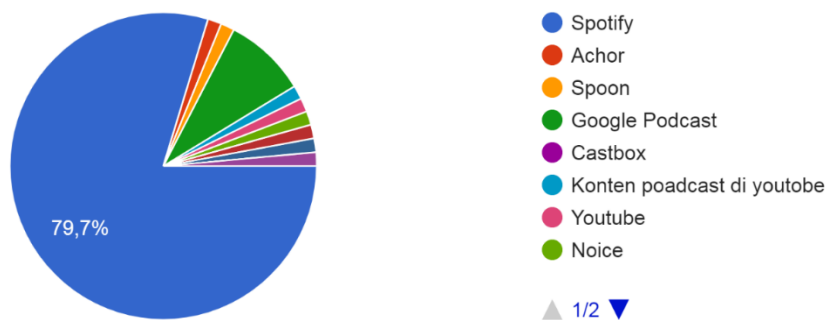
<sup>1</sup> Dahratul Laila, "Inovasi Perangkat Pembelajaran Menggunakan Aplikasi Podcast," in *Prosiding Seminar Nasional Pembelajaran Bahasa Dan Sastra Indonesia (SemNas PBSI)-3* (FBS Unimed Press, 2021), 7-12.

<sup>2</sup> <https://dataindonesia.id/internet/detail/pengguna-spotify-di-dunia-capai-551-juta-pada-kuartal-ii2023>

eco-techno-preneurship synergy, grounded in Islamic and Indonesian values. One of the study programs at IAIN Metro is the Islamic Communication and Broadcasting program, which focuses on excellence in writing, broadcasting, and public speaking. This aligns with the vision of the Islamic Communication and Broadcasting program: to become skilled and excellent in Islamic communication and broadcasting through socio-eco-techno-preneurship synergy by 2037.

Based on preliminary data obtained by distributing an online questionnaire via Google Forms to first-, third-, and fifth-semester students of the Islamic Communication and Broadcasting (KPI) program, 79.7% of KPI students at IAIN Metro use the Spotify application for listening to podcasts. Meanwhile, 1.4% use the Anchor podcast application, 1.4% use Spoon, 8.7% use Google Podcasts, 2.8% use YouTube, 1.4% use Castbox, and 2.8% use Noice. These data can be seen in the figure below:

Today's students have a defining characteristic of being closely connected to



technology. The use of podcasts is one of the new innovations to develop students' potential and skills. Moreover, the Islamic Communication and Broadcasting Study Program at IAIN Metro currently has a broadcasting medium, Shawtuna FM Radio, which, if managed optimally, could become an innovative learning medium for students. The integration of Shawtuna FM Radio and the Spotify application would create an effective and appealing collaborative learning medium if properly designed. In this study, Shawtuna FM Radio will serve as a medium for recording learning activities using a podcast model in the form of dialogue for certain courses, involving both lecturers and students to enable two-way communication. Podcasts can generally be understood as digital audio media distributed via the internet that can be streamed and downloaded online.<sup>3</sup> Podcasts offer unique features in terms of personalization, ease of access, and diversity of topics and formats. Therefore, when podcasts are developed within an educational context, they can become an attractive innovation in the fields of education and broadcasting.

<sup>3</sup> Rime, J., Pike, C., & Collins, T. (2022). What is a podcast? Considering innovations in podcasting through the six-tensions framework. *Convergence: The International Journal of Research into New Media Technologies*, 28 (2022), 1260 – 1282. h.1261

In its implementation, this podcast-based learning innovation will utilize radio broadcasts after the off-air sessions, while the Spotify application will serve as a platform to compile all recorded podcast materials into a dedicated album for learning podcasts. If podcast content on Spotify has so far been dominated by podcasts derived from YouTube MP3 recordings, this study seeks to integrate podcasts that emphasize two-way instructional communication by using existing media within the Islamic Communication and Broadcasting Study Program and the Spotify application, which is widely used by people around the world.

In this study, the courses selected as role models for podcast-based learning are Public Speaking and Da'wah Rhetoric. These courses require students to develop strong skills in word choice and verbal expression. Through this research, the study aims to create a new innovation in digital-based learning by utilizing two-way communication between lecturers and students. Learning is no longer limited to lecturers as information providers and students as passive listeners, but instead fosters innovative and creative learning through the use of radio media and the Spotify platform.

According to Cholik, there are several actions that can be taken in the field of education to take advantage of current information and communication technology, such as: (1) designing and developing educational programs that utilize media as learning tools to create an enjoyable learning experience, and (2) utilizing information and communication technology media and various applications that can be integrated into the learning process.<sup>4</sup> The use of podcasts through a storytelling method, with Shawtuna FM Radio as the initial medium for recording the podcasts and the recorded content subsequently transferred to the Spotify application (by creating a dedicated folder for learning podcasts), is one of the objectives of this study. This approach aims to enable certain courses within the Islamic Communication and Broadcasting Study Program to create innovative learning experiences through two-way communication involving both lecturers and students. Two-way communication that engages lecturers and students in the learning process can help sharpen students' skills, ensuring that lecturers do not remain the sole active subjects in learning. In addition, students can listen to the material repeatedly according to their individual learning needs.

Learning with new innovations using the Spotify media platform can be aligned with the Diffusion of Innovations theory as an analytical framework to explain how an innovation namely, the use of podcast-based instructional materials is accepted and adopted by the target group, namely students of the Islamic Communication and Broadcasting Study Program. By applying the Diffusion of Innovations theory, this study can explore more deeply the aspects of acceptance of new innovations in the educational context of the student learning process.

One relevant study for this research is a study by Rif'atul Himmah et al. (2021)

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<sup>4</sup> Cecep Abdul Cholik, "Pemanfaatan Teknologi Informasi Dan Komunikasi Untuk Meningkatkan Pendidikan Di Indonesia," *Syntax Literate; Jurnal Ilmiah Indonesia* 2, no. 6 (2017): 21-30. Hal. 26

entitled “Podcasts as Supplementary Media for Distance Learning in the Pandemic Era.” The results of this study indicate that podcasts in education can be used for various learning contexts and objectives. Podcasts can also increase students’ motivation to learn and enhance their self-confidence in the learning process.<sup>5</sup> Both the previous study and the present research employ podcasts as a learning method. However, the key difference lies in the focus: the previous study emphasized distance learning using various podcast media platforms, whereas the present research seeks to collaborate Shawtuna FM Radio as an educational podcast medium and to specifically focus on the Spotify application.

Second, a study by Dahratul Laila (2020) entitled “*Innovation in Learning Devices Using Podcast Applications*” found that teachers had begun using podcasts in distance teaching through Google Podcasts. The study also demonstrated that podcasts are an innovative learning tool. However, the use of podcasts remains very limited in higher education, and there are still few learning methods that utilize podcasts.<sup>6</sup> The similarity between the present study and this previous research lies in their shared focus on podcasts. The difference, however, is found in the research methods and instruments. The present study employs a Research and Development (R&D) method to develop a new product or enhance an existing one – namely, Shawtuna FM Radio as a broadcasting medium in the Islamic Communication and Broadcasting Study Program to support podcast production, along with the Spotify application as a supporting platform. This research involves both lecturers and students of the Islamic Communication and Broadcasting Study Program.

Third, a study by Peny Mellaty Hutabarat (2020) entitled “*Development of Podcasts as Digital-Based Supplementary Learning Media in Higher Education*” found that the role of podcasts at universities is still very limited, particularly in Indonesia. Podcasts can be beneficial for both lecturers and students; however, they need to be adopted by faculty and university management, and little has been done in this regard.<sup>7</sup> This study was limited to presenting descriptive data on the effectiveness of podcasts as supplementary learning media in higher education and did not specifically explain podcast techniques as instructional media. It merely provided recommendations for further research on podcasts as learning media. In contrast, the planned research will continue to focus through the stage of implementing educational podcasts in the Islamic Communication and Broadcasting Study Program via Shawtuna FM Radio and in collaboration with the Spotify application.

Fourth, a study by Dewi Mayangsari and Dinda Rizky (2019) entitled “*Podcasts as Learning Media in the Millennial Era*” found that podcasts were effective as learning media. Based on questionnaires measuring learning interest and pre–post test results, students’

<sup>5</sup> Rif’atul Himmah and Deony Dewanggi Mulyono, “Podcast Sebagai Media Suplemen Pembelajaran Jarak Jauh Di Era Pandemi,” *JIKE: Jurnal Ilmu Komunikasi Efek* 5, no. 5 (2021): 25–36.

<sup>6</sup> Laila, “Inovasi Perangkat Pembelajaran Menggunakan Aplikasi Podcast. In Prosiding Seminar Nasional Pembelajaran Bahasa dan Sastra Indonesia (SemNas PBSI)-3 (pp. 7-12). FBS Unimed Press.”

<sup>7</sup> Peny Meliaty Hutabarat, “Pengembangan Podcast Sebagai Media Suplemen Pembelajaran Berbasis Digital Pada Perguruan Tinggi,” *Jurnal Sosial Humaniora Terapan* 2, no. 2 (2020).



interest in learning increased, and course scores improved from 59.4 in the moderate category to 68.60 in the good category. These findings indicate that podcasts are a valuable tool for supporting learning.<sup>8</sup> The similarity lies in the shared focus on podcasts; however, the distinction is that this study measured the effectiveness of podcasts as learning media using quantitative data, whereas the present research employs a Research and Development (R&D) method. It also involves existing media within the Islamic Communication and Broadcasting Study Program at IAIN Metro and actively engages both lecturers and students in the research process.

Fifth, a study by Nihayatul Umniyyah and Rachmad Hidayat (2020) entitled *"Development of Audio-Based Media through Spotify Podcasts to Support Distance Learning in the Retail Business Management Course"* found that the material expert validation reached 85.45% (feasible category), media expert validation reached 98.46% (feasible category), language expert validation reached 94.00% (feasible category), and field trial validation reached 93.04% (feasible category). Overall, this development was considered effective in supporting distance learning.<sup>9</sup> Although both studies use podcast methods and the Spotify application, they differ in how the podcasts are designed and implemented. In the previous study, teachers served as the sole content creators of the podcasts, while students acted only as passive listeners on Spotify. In contrast, the present study involves both lecturers and students in producing educational podcasts that discuss specific courses, thereby enabling two-way communication. From this perspective, students' communication skills also play an active role, helping to enhance their communication abilities and critical thinking skills through the process of creating educational podcasts.

Research on study program development in the context of podcasting that utilizes radio broadcasting media (Shawtuna FM) and combines it with the Spotify application within the field of educational development is still limited. Similarly, studies and research that recognize educational podcasts as a medium for two-way learning communication involving lecturers and students remain scarce, as learning activities are often confined to classroom settings. Therefore, this study aims to discover innovations in the development of instructional materials by integrating radio and podcasts as learning media for students of the Islamic Communication and Broadcasting Study Program at IAIN Metro, as well as to develop podcast-based instructional materials to enhance students' understanding of course content.

## METHOD

This study employs a Research and Development (R&D) methodology. This method is used to create a specific product and to test the effectiveness of that product.<sup>10</sup>

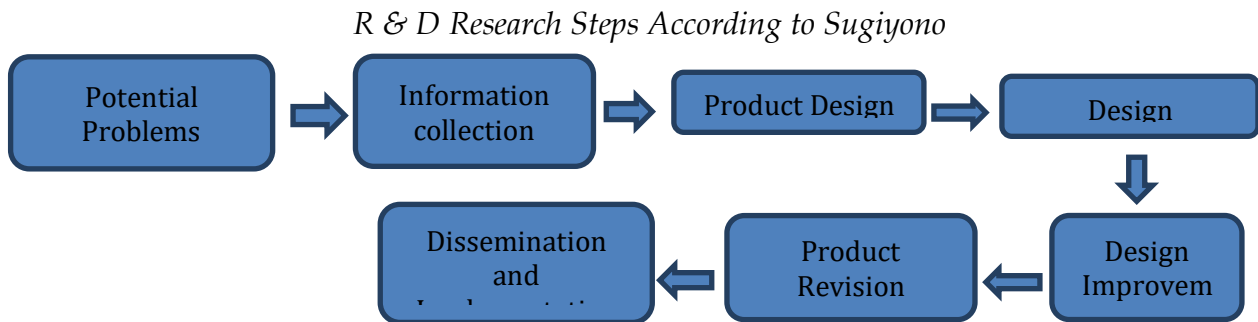
<sup>8</sup> Mayangsari and Tiara, "Podcast Sebagai Media Pembelajaran Di Era Milenial. Jurnal Golden Age, 3(02), 126-135"

<sup>9</sup> Nihayatul Umniyyah and Rachmad Hidayat, "Pengembangan Media Berbasis Audio Melalui Podcast Spotify Untuk Menunjang Pembelajaran Jarak Jauh Pada Mata Pelajaran Pengelolaan Bisnis Ritel," *Jurnal Ekonomi, Bisnis Dan Pendidikan* 1, no. 1 (2021): 34-39.

<sup>10</sup> Prof Dr Sugiyono, "Metode Penelitian Kuantitatif Kualitatif Dan R&D, Bandung: CV. ALVABETA," 2009. h. 407  
Eka Octalia, Aliyandi... *Development of Podcast-Based...*

Educational products may take the form of curricula designed to meet particular educational needs, teaching methods, media, evaluation systems, competency test models, or production unit models.<sup>11</sup> In addition, this research and development process will produce a new podcast-based product that will be used by students of the Islamic Communication and Broadcasting Study Program at IAIN Metro.

The stages of this research are outlined in the table below:



The data in this study consist of primary and secondary data. Primary data are obtained from lecturers and students of the Islamic Communication and Broadcasting Study Program. Secondary data include materials written by lecturers, journals, books, and other references related to courses in the Islamic Communication and Broadcasting Study Program.

Data analysis is the most appropriate approach for determining the steps in organizing and processing the data collected in this study. The analysis procedures include: (1) instrument validation to determine the level of validity of the instruments to be used by subject-matter experts in evaluating the instructional materials and learning media developed by the researcher; the subject-matter experts are lecturers in Islamic Communication and Broadcasting; and (2) media expert validation to assess the feasibility of the podcasts, which is used as the basis for data analysis by media experts.

## RESULT AND DISCUSSION

### Planning Stage

This study has gone through several stages and processes. The planning stage involved formulating objectives, identifying needs, and preparing the resources required for product development. The researcher collected information, conducted a needs analysis, and developed a work plan as the basis for product development.<sup>12</sup> The planning stage began with an analysis of students' needs through observation and the distribution of questionnaires to first-, third-, and fifth-semester students of the Islamic Communication and Broadcasting (KPI) Study Program. The results showed that 79.7% of KPI students at IAIN Metro use the Spotify application for listening to podcasts.

<sup>11</sup> Ibid, 412

<sup>12</sup> Ediyanto, E., Sunandar, A., Ramadhani, R., & Aqilah, T. (2022). Sustainable Instrument Development in Educational Research. *Discourse and Communication for Sustainable Education*, 13, 37 - 47. Hal, 44

In addition, data from lecturers in the Islamic Communication and Broadcasting Study Program at IAIN Metro indicated that none of the lecturers had previously used podcasts as a learning medium.

Furthermore, there is a lack of students' motivation to reread learning materials delivered by lecturers, and students tend to act only as passive listeners during classroom instruction. The absence of audio-based digital supporting media as an innovative learning tool in this study program presents an opportunity for developing audio digital-based learning innovations, enabling students to access learning materials anytime and anywhere.

### **Tahap Desain Produk**

The product design stage is the process of developing the initial concept and form of the product based on the results of the needs analysis.<sup>13</sup> At this stage, podcasts are created by determining the themes and courses to be discussed in the podcast content. The selected courses are even-semester courses, namely Introduction to Communication Studies, Political Communication, Journalistic Photography, and Master of Ceremony. The podcast content is produced with a duration of 20–30 minutes and involves one lecturer and a maximum of two students for the initial podcast production trial. Afterward, the recorded podcasts are archived through the radio station and then uploaded to the Spotify application.

### **Design Validation Stage**

The design validation stage is a process of testing and evaluating the product by experts in relevant fields, with the aim of ensuring that the product design meets quality, feasibility, and relevance criteria before being tested with a broader group of users. This stage involves validation by two types of experts: subject-matter experts and media experts.<sup>14</sup> The subject-matter validators are experts with experience in the field of Islamic Communication and Broadcasting and have worked in higher education institutions for at least five years as lecturers. They are Umi Rojati and Nasrul Efendi, lecturers in Islamic Communication and Broadcasting at UIN Raden Intan Lampung. The media validators are experts who have worked in radio broadcasting media for three and six years, respectively, namely Ahmad Abidin and Julian Ayuri.

This validation process aims to determine the feasibility of the product as well as to obtain comments and suggestions for improvement from the validators, so that the product can be further refined before use. The following are the results of the material validation assessment.

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<sup>13</sup> *Ibid*, h.45

<sup>14</sup> *Ibid*, h.46



NO	ASPECT	SCORE	DESCRIPTION
1	Depth of Material	4	Good
2	Curriculum Suitability	5	Very Good
3	Breadth of Material	4	Good

The first validation was conducted by expert lecturers, who distributed questionnaires containing questions related to the context of the course being tested. The expert results were 86.66%. The breakdown of this figure refers to assessments of material depth, curriculum suitability, and breadth.

$$P = \frac{86,66}{100} \times 100\% \\ = 86,66 \%$$

Keterangan:

P = Percentage score

F = Total scores obtained

N = maximum score<sup>15</sup>

*Media Eligibility Criteria (Sugiono, 2021)*

Qualification Achievement	Level	Description
81% - 100%	Very Adequate	Very Eligible/Very Valid
61% - 80%	Adequate	Eligible/Valid
41% - 60%	Fair	Fairly Eligible
21% - 40%	Unadequate	Not Eligible/Invalid
0% - 20%	Very Poor	Very Ineligible/Very Invalid

Based on these data, the material aspect can be categorized as “very feasible” as a learning innovation, referring to the product feasibility criteria. The results of the expert validation indicate that the learning media are highly suitable to be used as a podcast-based learning innovation. However, the validators also provided suggestions, namely that the materials should be detailed and organized by episode for each course. Essentially, podcast materials can be structured in the same way as classroom learning, with the main difference being the medium used. Thus, all materials in each semester can be developed as a repository or database of learning content in audio-visual form.

<sup>15</sup> Sugiono, *Metode Penelitian Kuantitatif, Kualitatif, Dan R&D*, (Bandung: Alfabeta, 2021), H. 117

In addition, the alignment between content and materials should refer to the course learning outcomes specified in the Semester Lesson Plan (RPS).

The next stage is the evaluation by media experts. The assessment was conducted using a Likert scale rubric adapted from Sugiyono, categorized on a scale of 1–5.<sup>16</sup> The aspects evaluated by the media experts include sound clarity, vocal quality and intonation, and the level of accessibility. The data are presented in the table below:

NO	ASPECT	SCORE	DESCRIPTION
1	Voice Clarity	4	Good
2	Vocals and Intonation	4	Very Good
3	Ease of Accessibility	5	Good

The media expert validator's eligibility score was 89.8%. The assessment included aspects of sound clarity, vocals, and intonation, as well as ease of access to Spotify material. The detailed data is as follows:

$$P = \frac{89.8}{100} \times 100\% \\ = 89.9 \%$$

Based on the data from the media expert validators, the scores indicate that the use of the Spotify application as a learning medium can be categorized as “very feasible,” according to the feasibility criteria. This is due to its ease of access and the ability to organize content by episode for each learning topic. The media experts provided several suggestions, including the use of language that matches students’ level of understanding such as a more relaxed and less rigid style. They also recommended that each episode include a brief description of the topic to be discussed, and that background noise be minimized during the editing process to ensure sound clarity before uploading the podcast. Overall, the media validators stated that podcast-based learning media represent a new breakthrough in the digital media landscape, supporting the digitalization of student learning while also serving as a means to broaden knowledge in the field of media.

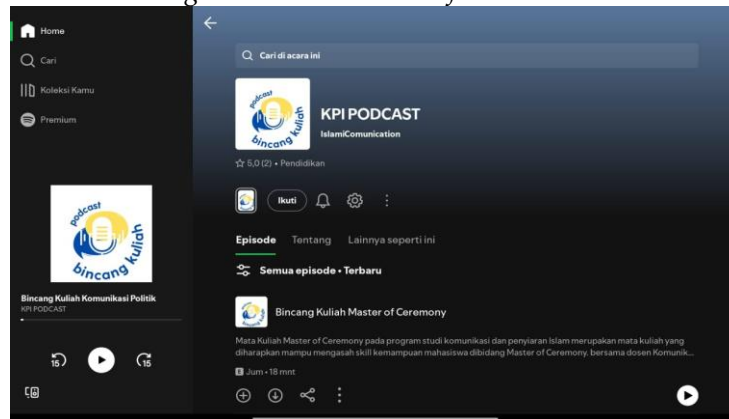
### Product Revision Stage

The product revision stage was carried out after receiving feedback and improvement suggestions from the validators, after which the researcher revised the product accordingly. The material validators suggested that the content be organized and detailed by episode for each course rather than combined, so that students would not be confused when searching for the materials they need. They also recommended providing

<sup>16</sup> *Ibid*, 120

brief descriptions of the content on the podcast display so that students can quickly understand the outline of the material they are about to listen to. Meanwhile, the media validators advised that the audio quality be improved by recording with a dedicated microphone to ensure clearer sound, reduced noise, and a more professional result. They also recommended adding a distinctive logo to the podcast so that it has a clear identity on the Spotify platform.

Figure 1. Podcast view after revision



## Field Trial

After completing the product revision stage, the next step was the trial phase conducted with prospective users. The trial was carried out to assess the feasibility of the developed product. The feasibility testing process involved 37 students from the third and fifth semesters.

The trial was conducted by having the course lecturers prepare questions related to the materials presented in the podcast, which were then answered by the students. The lecturers subsequently scored the students' responses. The purpose of this stage was to determine the depth of students' understanding of the podcast content they had listened to and to evaluate their ability to answer questions based on that content. The average score obtained by the 37 students from the Islamic Communication and Broadcasting Study Program in the third and fifth semesters was 87.7.

$$P = \frac{87.7}{100} \times 100\% \\ = 87.7 \%$$

Overall, the average results fall into the "very feasible" category based on Sugiyono's (2021) feasibility scale, indicating that most students understood the material delivered through the podcast. The percentage obtained suggests that the podcast-based learning media developed in this study are feasible to be used and applied in the learning process.

Feedback from students also highlighted that the informal and relaxed communication style of the podcast, combined with humorous and light-hearted

language, made the podcast enjoyable to listen to and not boring. In addition, students noted that podcasts help support online learning and can serve as an alternative model of learning.

Podcasts can significantly support students' development in creativity, innovation, and 21st-century skills. They encourage critical thinking, foster greater learner independence, and stimulate curiosity about the subjects being studied. Podcast-based learning media also contribute to enhancing and enriching students' overall learning experiences.

As stated by Firmansyah, podcasts as learning media can also improve students' learning outcomes. He argues that podcasts, as media that integrate the senses of sight and hearing, help students achieve competencies and better understand what they are learning.<sup>17</sup> This statement is also supported by Dale (1969), who suggested that information acquired by students through the senses of hearing and sight can increase their knowledge and experience by up to 20%.

### **Diseminasi dan Implementasi**

At this stage, all feedback and revisions have been fully addressed. The evaluation results from both validators and students indicate that the digitalization of learning can be effectively supported by utilizing Spotify as a podcast-based medium, particularly when the content is educational and aligned with students' needs.

In the dissemination process, the finalized podcast content is distributed through the Spotify platform. Through this platform, students can access podcasts anytime and anywhere, either via mobile devices or desktop computers. This distribution creates opportunities for students with diverse learning styles especially those who are more responsive to auditory learning to access learning materials more effectively.

The implementation of podcasts in learning involves adjustments on the part of both lecturers and students. For lecturers, podcasts offer flexibility in delivering course materials. They can create audio modules that can be played at any time, allowing classroom time to be focused on discussion and the application of concepts. Podcasts also enable lecturers to provide brief reviews or additional information after formal learning sessions.

Podcasts as a learning medium represent an innovation that leverages technological advancements to create a more flexible, interactive, and personalized learning environment. With proper dissemination and structured implementation, podcasts can become an effective medium to support the learning process, engage students more deeply, and create learning experiences that are more engaging and relevant to modern lifestyles.

Based on Lasswell's communication theory, as cited by Tohar et al. (2024), the podcast-based learning process involves several key elements in achieving knowledge

<sup>17</sup> M. Bayu Firmansyah and Badriyah Wulandari, "Penggunaan Media Podcast Dalam Pembelajaran Di Era Digital," *Prosiding Transformasi Pembelajaran Nasional (Pro-Trapenas)* 1, no. 1 (2021): h. 57.

outcomes: the communicator, namely the lecturer; the message, which consists of the learning materials delivered; the medium, which includes podcasts and Spotify; the audience, involving students of Islamic Communication and Broadcasting; and the effect, which is reflected in students' understanding of the material and the two-way communication that occurs.

Podcast-based learning media have developed rapidly and have become an important innovation in the field of education. This audio medium allows for flexible and dynamic delivery of learning materials, offering engaging learning experiences for both students and educators. The following section outlines the reasons why podcasts have become an effective and popular innovation as a learning medium.

As stated by Rogers, there are five stages in the innovation adoption process, namely:<sup>18</sup> (1) knowledge, in which innovation emerges from a basic understanding of how it works. This means that lecturers who intend to use podcast-based learning innovations must have sufficient knowledge of the operational and technical aspects of developing such innovations; (2) interest, in which lecturers develop an interest and actively seek more information about the innovation in order to use podcasts as a learning medium for students; (3) decision, in which, before deciding to continue using the innovation, lecturers as educators rely on survey data regarding students' needs. Based on these data, a decision is made on whether podcast-based learning innovations should be adopted; (4) implementation, in which, if initial observations indicate that the innovation is suitable as a learning medium, lecturers begin producing podcast-based learning products; and (5) confirmation, which involves evaluating the learning innovation that has been implemented. This is particularly important given that the development of such products requires a lengthy process before they are ready to be used as learning media.

In today's digital era, technology offers various platforms that support distance learning and enable access to information anytime and anywhere. Podcasts are one medium with strong potential to enrich the teaching and learning process through an auditory and interactive approach. As a learning medium, podcasts allow for diverse variations in content delivery. Beyond one-way lectures, educators can invite experts, professionals, or even alumni as resource persons, making learning more engaging and relevant. Discussions in the form of question-and-answer sessions or interviews can help make complex topics easier to understand. This variety of formats provides a richer learning experience and helps prevent boredom and monotonous routines.

As a learning innovation, podcasts open up significant opportunities to create dynamic, flexible, and cost-effective learning experiences. With ongoing technological advancements, podcasts can be further enhanced, making them a relevant and effective learning medium for supporting education in the digital era.

<sup>18</sup> Everett M. Rogers, Arvind Singhal, and Margaret M. Quinlan, "Diffusion of Innovations," in *An Integrated Approach to Communication Theory and Research* (Routledge, 2014), h. 93

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## CONCLUSION

Based on the research findings, it can be concluded that the researcher has successfully developed a learning product in the form of a podcast-based learning innovation for students of the Islamic Communication and Broadcasting Study Program at IAIN Metro. After undergoing product revisions based on the validators' suggestions and subsequent feasibility testing with 37 Islamic Communication and Broadcasting students, the results indicated a "very feasible" category with an average score of 87.7%. This demonstrates that the developed podcast-based learning product effectively meets students' learning needs.

Podcast-based learning introduces a new innovation in the field of education to support learning within the context of digitalization. Podcasts that are clearly designed, systematically structured, and curriculum-based can help students better understand complex concepts. Audio narratives combined with well-organized explanations facilitate more effective information absorption.

## ACKNOWLEDGMENT

The researcher would like to thank all parties who assisted in collecting the data for this study. The researcher acknowledges that this study still has shortcomings and errors. Therefore, constructive criticism and suggestions are highly appreciated for its improvement. He hopes that this research will be beneficial to IAIN Metro.

## AUTHORS' CONTRIBUTION

EO as the main author contributed to the search for material, analysis, and preparation of the research, AL as the second author contributed to the search for material and revision if there were any word errors or lack of information sources, and RD as the information collector and provided all input and additions.

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EO as the main author contributed to the search for material, analysis, and preparation of the research, AL as the second author contributed to the search for material and revision if there were any word errors or lack of information sources, and RD as the information collector and provided all input and additions.

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