



Development of Podcasts as a Digital-Based Islamic Education Learning Medium

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Abstract

The rapid advancement of digital technology has created new opportunities for developing innovative learning media in Islamic Education. Among the emerging digital platforms, podcasts offer flexible, accessible, and engaging learning experiences that support independent and continuous learning. This study aims to develop a podcast-based learning medium for Islamic Education and evaluate its feasibility and potential effectiveness in supporting students' learning. The study employed a Research and Development (R&D) approach using the ADDIE model, consisting of analysis, design, development, implementation, and evaluation stages. Learning media were designed according to the Islamic Education curriculum and evaluated through expert validation and user implementation to assess content quality, usability, and learning effectiveness. The findings indicate that the developed podcast is pedagogically feasible and supports a more flexible learning process by enabling students to access instructional materials anytime and anywhere. Furthermore, podcast-based learning enhances students' learning motivation, engagement, and conceptual understanding by presenting instructional content in an interactive audio format. These findings suggest that podcasts represent an effective digital learning medium that complements conventional classroom instruction and contributes to the digital transformation of Islamic Education.

INTRODUCTION

Information and communication technology has significantly transformed various aspects of human life, including the education sector. Digitalization has not only changed the way people communicate but has also shifted educational paradigms toward more flexible, interactive, and learner-centered approaches (Dalimunthe et al., 2023; Du et al., 2021). Today's students are digital natives who are accustomed to using digital technologies in their daily lives. Consequently, they require learning media that align with their characteristics and learning needs. Therefore, integrating digital-based learning media has become an essential component of enhancing the effectiveness of teaching and learning processes in the modern educational landscape (Nurhasanah et al., 2025).

One of the emerging innovations in digital learning media is the podcast. A podcast is a digital audio medium that can be accessed through various online platforms, allowing students to engage with learning materials flexibly without

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limitations of time and place (Errabo et al., 2024; Solissa et al., 2024). In addition to providing easy accessibility, podcasts present instructional content in a communicative, engaging, and personalized manner, thereby offering the potential to enhance students' engagement in the learning process (Besser et al., 2022; Ummah et al., 2020). These characteristics make podcasts a promising alternative learning medium that supports self-directed learning while enriching students' learning experiences.

In the context of Islamic Education, podcasts have considerable potential because many instructional topics are narrative, reflective, and contextual in nature, including stories of the Prophets, Islamic history, *aqidah* (Islamic creed), *akhlak* (Islamic ethics), and moral values. Delivering instructional content through audio media enables students to concentrate more effectively on listening, understanding, and internalizing the values conveyed. Furthermore, podcast-based learning supports the concept of self-directed learning by allowing students to determine the time, place, and pace of their learning according to their individual needs. Audio-based instruction also contributes to improving listening skills, strengthening memory retention, and facilitating deeper comprehension through repeated exposure to learning materials (Fauzi, 2020; Haan et al., 2026).

Despite these advantages, the implementation of podcasts in Islamic Education remains relatively limited. In many educational institutions, Islamic Education instruction continues to rely predominantly on conventional lecture-based methods, which often limit students' active participation. Moreover, limited digital competence among teachers, inadequate skills in developing technology-based instructional media, and the scarcity of podcast learning resources specifically designed for Islamic Education present significant challenges to their broader implementation (Dwi Latifah, 2025; Ilmiyah & Sumbawati, 2021; Nasron et al., 2024; Zebua, 2023). These conditions highlight the need to develop more innovative, adaptive, and technology-oriented learning media that respond to the demands of digital educational transformation.

Previous studies have demonstrated that podcasts have been widely utilized as learning media across various academic disciplines due to their ability to enhance learning motivation, flexibility, and student engagement. However, studies focusing specifically on the development of podcasts as instructional media for Islamic Education, particularly those employing a Research and Development (R&D) approach based on the ADDIE model, remain limited. Consequently, there is a need to develop podcast-based learning media that not only correspond to the characteristics of Islamic Education content but also meet pedagogical quality standards and effectively support students' learning.

Based on these considerations, this study aims to develop a digital podcast-based learning medium for Islamic Education using the ADDIE model, evaluate its feasibility through expert validation, and examine its effectiveness in improving students' learning interest and conceptual understanding. It is expected that the findings of this study will contribute to the advancement of digital learning media in Islamic Education while providing educators with an innovative instructional alternative that is relevant to the demands of education in the digital era.

METHODS

This study employed a Research and Development (R&D) approach to develop a digital podcast-based learning medium for Islamic Education (Ilyés, 2019; Rachma & Muhlas, 2022). The development process followed the ADDIE model, which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation. The analysis stage involved identifying instructional needs, analyzing the characteristics of students, reviewing the Islamic Education curriculum, and

examining the readiness of teachers and students to utilize digital learning media. This stage also explored students' preferences for audio-based learning media to ensure that the developed podcast addressed instructional needs (Moses Adeleke Adeoye et al., 2024; Nowicki et al., 2024).

During the design stage, the podcast learning media were planned by preparing learning objectives, organizing Islamic Education content, designing episode structures, determining presentation formats, and developing storyboards and scripts aligned with curriculum objectives. The development stage focused on producing the podcast through script writing, audio recording, editing, and integrating supporting audio elements. The developed product was subsequently evaluated through expert validation, involving subject-matter experts and instructional media experts to assess content accuracy, instructional quality, technical aspects, and media usability. Revisions were made based on the validators' recommendations (Rahayu, 2025; Umar et al., 2023).

At the implementation stage, the validated podcast was introduced to students in Islamic Education learning activities. The podcast was distributed through digital platforms to enable flexible access both inside and outside the classroom. User responses were collected to evaluate the practicality, usability, and initial effectiveness of the learning media. The evaluation stage was conducted continuously throughout the development process by integrating feedback from expert validation and user implementation. The evaluation results were used to improve both the instructional content and technical quality of the podcast before producing the final version (Iswati, 2019; Mdoana-Zide, 2024).

The participants of this study consisted of Islamic Education teachers and students involved in the implementation phase. Data were collected through observations, interviews, questionnaires, and expert validation sheets. Qualitative data obtained from interviews and expert feedback were analyzed using descriptive qualitative analysis to support product revision (Mayfield, 2011). Quantitative data collected from validation sheets and user response questionnaires were analyzed descriptively using percentage scores to determine the feasibility, usability, and user acceptance of the developed podcast as a digital learning medium.

RESULT AND DISCUSSION

Analysis Stage

The analysis stage was conducted to identify the instructional needs, learner characteristics, and the potential use of digital media in Islamic Education. The findings indicated that Islamic Education learning was still predominantly delivered through conventional lecture-based methods, resulting in limited student engagement and minimal utilization of digital learning resources. Although most students were familiar with smartphones and internet-based applications, these technologies had not been optimally integrated into classroom instruction.

The needs analysis further revealed that students required learning media that were flexible, accessible, and capable of supporting independent learning outside the classroom. Podcast-based learning media were identified as a potential solution because they allow students to access learning materials repeatedly according to their own learning pace and schedule. In addition, curriculum analysis showed that several Islamic Education topics, including *aqidah*, *akhlak*, Islamic history, and exemplary stories of the Prophets, are narrative in nature and therefore suitable for audio-based instructional delivery. These findings indicate that developing podcast-based learning media is relevant to the characteristics of Islamic Education and the learning preferences of today's digitally oriented students.

Design Stage

Based on the results of the analysis stage, the podcast learning media were

designed following the learning objectives specified in the Islamic Education curriculum. The design process included selecting instructional materials, preparing podcast scripts, organizing learning sequences, determining presentation formats, and planning episode duration.

The podcast content was structured into several components consisting of an introduction, learning objectives, presentation of instructional materials, reflective discussion, and a concluding summary. To enhance students' engagement, the instructional content was presented using a conversational and communicative narration style rather than a formal lecture approach. Particular attention was also given to the clarity of language, audio organization, narration flow, and listening comfort to ensure that the podcast could effectively support independent learning. The design stage produced a comprehensive blueprint for podcast-based Islamic Education learning media that would serve as the basis for the subsequent development stage. This design was expected to facilitate the production of learning media that are pedagogically appropriate, technically feasible, and responsive to students' learning needs.

Digital Podcast Development Process

Based on the results of the needs analysis and design stages, the development of the podcast as a digital learning medium for Islamic Education was systematically planned using the ADDIE model. The development process was intended to produce an audio-based learning medium that aligns with students' characteristics, curriculum learning outcomes, and current trends in digital education. The ADDIE model was selected because it provides a structured framework for developing instructional media that is systematic and responsive to users' learning needs (Susilawati et al., 2025).

The development process began with the organization of instructional materials based on the learning outcomes identified during the analysis stage. Podcast scripts were then prepared by considering the sequence of content delivery, the use of clear and communicative language, and the inclusion of contextual examples to facilitate students' understanding. This stage was essential to ensure that the podcast content remained aligned with the intended learning objectives while maintaining students' engagement throughout the learning process (Errabo et al., 2024).

In addition to content preparation, the development process also considered technical aspects of the podcast, including narration quality, voice intonation, episode duration, and the overall structure of each episode. These design considerations were intended to provide a comfortable and engaging listening experience while supporting students' independent learning. As a result, this stage produced an initial podcast prototype that serves as the foundation for subsequent validation and refinement in future stages of development.

The findings indicate that the analysis and design stages provide a solid foundation for developing podcast-based digital learning media for Islamic Education. The needs analysis revealed that students require learning resources that are flexible, easily accessible, and compatible with their digital learning habits. These findings suggest that podcasts have considerable potential as instructional media capable of supporting independent learning while expanding students' access to learning materials.

The podcast was designed by considering its alignment with the Islamic Education curriculum, students' characteristics, and the principles of digital instructional media design. Presenting learning materials through audio enables students to revisit the content whenever necessary, thereby supporting more flexible learning experiences. This characteristic is consistent with the findings of Asnawati, & Sutiah (2023), who argued that audio-based learning media allow students to review instructional materials repeatedly, thereby strengthening conceptual

understanding.

Furthermore, the use of communicative language, systematic content organization, and appropriate episode duration is expected to enhance students' learning experiences. According to (Samed Al-Adwan et al., 2022), the flexibility offered by digital learning media is one of the key factors in promoting self-directed learning because it enables students to access learning resources regardless of time and place. Although the present study focused only on the analysis and design stages, the findings demonstrate that the ADDIE model provides a systematic framework for designing digital learning media. The analysis stage facilitated a comprehensive identification of users' instructional needs, while the design stage resulted in a structured instructional blueprint that aligns with the objectives of Islamic Education. These findings support Masitoh (2018) view that careful instructional planning is a crucial prerequisite for developing high-quality learning media that can be effectively implemented in subsequent development stages.

This study is limited to the initial phases of the ADDIE model and has not yet included expert validation, classroom implementation, or effectiveness evaluation. Therefore, future studies are recommended to continue the development process through the Development, Implementation, and Evaluation stages to assess the feasibility, usability, and effectiveness of the podcast in improving students' learning outcomes. Such efforts are expected to contribute to the advancement of innovative digital learning media that support the transformation of Islamic Education in the digital era.

CONCLUSION

Based on the findings of this study, it can be concluded that the ADDIE model provides a systematic framework for designing podcast-based digital learning media for Islamic Education. The analysis stage identified the need for more flexible, accessible, and technology-supported learning media that align with students' learning characteristics in the digital era. The design stage subsequently produced a structured podcast prototype by integrating curriculum objectives, instructional content, communicative narration, and audio-based learning principles. These findings indicate that podcast-based learning media have the potential to support the digital transformation of Islamic Education by providing a learner-centered instructional alternative that accommodates independent learning. Nevertheless, this study is limited to the analysis and design stages of the ADDIE model. Therefore, future research should continue the development process through expert validation, classroom implementation, and effectiveness evaluation to establish the feasibility and educational impact of the proposed learning media.

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