

THE DEVELOPMENT OF KAHOOT GAME-BASED PAI HOOT MEDIA IN PAI SUBJECT AT SMA NEGERI KESAMBEN

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Abstract

This research was motivated by the low interest and activeness of students in Islamic Religious Education (PAI) learning at SMA Negeri Kesamben, which was caused by conventional and monotonous teaching methods, such as lectures and the use of less innovative media. The objectives of this study are: (1) to develop PAI HOOT learning media based on Kahoot educational game in PAI subjects, and (2) to determine students' responses to the developed media. This study employed Research and Development (R&D) method with the ADDIE development model consisting of five stages: Analysis, Design, Development, Implementation, and Evaluation. The trial subjects were 36 students of grade XI at SMA Negeri Kesamben. Data collection instruments included validation questionnaires for media experts, material experts, and student response questionnaires. Data analysis used quantitative descriptive analysis by calculating the feasibility percentage. The results showed that: (1) PAI HOOT media was successfully developed through systematic ADDIE procedures and obtained validation with very feasible category from media experts (average 95%) and feasible category from material experts (average 81%); (2) students' responses to PAI HOOT media showed very positive results with an average percentage of 91%, which falls into the very good category. Thus, PAI HOOT learning media based on Kahoot game is declared feasible and effective to be used as interactive learning media to increase students' interest and understanding in PAI subjects, especially on the material of Tabligh, Da'wah, and Khutbah at SMA Negeri Kesamben.

Keywords: Media Development, Kahoot Game, PAI Learning, ADDIE, Interactive Learning Media

INTRODUCTION

According to the KBBI (Great Dictionary of the Indonesian Language), 'education' (pendidikan) originates from the word 'didik', which means to nurture and provide lessons that train intellectual, cognitive, and moral skills (Indonesia, 2025). Education is described as the process of changing the attitudes and behaviors of individuals or groups in order to develop fully mature adults through teaching, training, and guidance (Nazmuddin et al., 2024). In the terms of Ki Hajar Dewantara, education can be defined as an effort to develop a child's

character, intellect, and physical body, enabling them to successfully achieve a harmonious existence within their environment and society (Maryam & Qomariyah, 2020).

Religious education plays a crucial role in shaping the character, morals, and spirituality of students. It aims not only to impart knowledge about religious teachings but also to shape attitudes and behaviors in accordance with religious values (Budiman & Harahap, 2024). In the digital era, religious education faces new challenges, such as a decline in student interest due to monotonous and less interactive learning methods (Fauzan et al., 2026). Therefore, innovation in religious learning is necessary, including the use of engaging instructional media that align with technological advancements. Islamic Religious Education (PAI) serves as a platform to study and deepen knowledge. In connection with this, students are required to study Islamic Religious Education to gain a broader and deeper understanding of the subjects being examined (Jusman & Usman, 2025).

The teaching and learning of Islamic Religious Education (PAI) frequently encounter various difficulties that can hinder the effectiveness of the educational process. One of the primary challenges is the lack of student interest and motivation in attending PAI lessons (Rachma et al., 2023). This can be attributed to unengaging teaching methods, causing students to feel bored and disengaged from active participation in learning (Rohima, 2021). According to Supriyadi, many students perceive religious subjects as monotonous and irrelevant to their daily lives. Furthermore, difficulty in comprehending the learning materials also poses a significant problem (Afaria et al., 2022). PAI materials, which are often theoretical and abstract, can make it difficult for students to relate them to their real-life experiences. This is exacerbated by the lack of utilization of innovative and interactive instructional media that could assist students in better understanding religious concepts (Asnawati & Sutiah, 2023).

Another factor affecting the difficulties in PAI learning is the difference in students' backgrounds. Students with varying religious educational backgrounds may possess different levels of understanding of the taught materials. Therefore, it is essential to develop instructional methods and media capable of reaching all students, regardless of their backgrounds (Rizqiya & Pebri Setiani, 2024).

Based on field surveys, the vast majority of students experience issues with learning interest due to teachers' lack of creativity in delivering lessons. This is because the available instructional media frequently used thus far merely consist of student worksheets (LKS), videos, and one-way PowerPoint presentations. This renders the learning process less

appealing, leading students to feel fatigued and less interested in learning. Instructional media play a vital role in achieving student success. The selection of media as a learning strategy is also a dominant factor in comprehending the learning materials to be developed conceptually in education. Media must be adapted to the content, the explanation of the message to be conveyed, and the characteristics of the students. In teaching and learning activities, any ambiguity in the delivered materials can be clarified by utilizing media as an intermediary (Anggraini et al., 2024).

Learning media are tools that can facilitate the teaching and learning process, rendering the meaning of the conveyed information clearer and ensuring that educational or instructional objectives are achieved effectively and efficiently. Learning outcomes refer to the assessments given to students after completing a learning session, involving the evaluation of knowledge, attitudes, skills, and observable behavioral changes that have occurred. Learning media function as resources that enable students to access messages and information provided by teachers, thereby improving instruction and enhancing students' learning and knowledge.

In the implementation of both online and offline learning, every student must possess an attitude that supports the achievement of learning objectives. One essential attitude that students must have is a strong interest in learning during the educational process.

Based on this background, the author will discuss the development of instructional media in the form of interactive applications utilizing modern technology for use in the teaching and learning process. This research aims to examine the topic entitled "Development of Kahoot Educational Game-Based Interactive Learning Media for Islamic Religious Education (PAI) Subject at SMA Negeri Kesamben."

RESEARCH METHOD

This study utilizes a Research and Development (R&D) approach. The R&D approach is employed because this research specifically aims to produce a particular product, namely an interactive instructional media based on educational games, as well as to test the effectiveness and feasibility levels of the developed product (Sugiono, 2024).

The research design utilized to develop the product refers to the ADDIE development model, which consists of five systematic stages: Analysis, Design, Development, Implementation, and Evaluation. The design using the ADDIE model was selected because it

is systematic, structured, and capable of providing a clear and measurable workflow to produce a tested PAI HOOT media product that is feasible for use in schools (Hidayat & Nizar, 2021).

In this study, the researcher conducted a validation test on the developed media to determine the product's feasibility. The product was evaluated by media experts and subject matter experts, and subsequently tested on students. The results of these assessments and trials were then analyzed to determine the quality score of the Kahoot educational game product. The subject of this research is the Kahoot educational game as an Islamic Religious Education (PAI) instrundctional media for eleventh-grade students at SMA Negeri Kesamben. Meanwhile, the objects of this research consist of the eleventh-grade students at SMA Negeri Kesamben. The evaluation was reviewed based on the aspects of learning materials, questions, game interface, and game practicality. The assessments were carried out by media experts, subject matter experts, and the students.

The primary data collection instruments utilized in this research consisted of questionnaires, which included validation questionnaires for media experts, validation questionnaires for subject matter experts, and response questionnaires for students. The initial phase of data collection was also supported by interview and observation instruments involving both teachers and students for the needs analysis stage. The measurements on the validation sheets and student response questionnaires employed a Likert scale method with a score range of 1 to 5, representing evaluation levels ranging from Very Poor (score 1) to Very Good or Strongly Agree (score 5) (Yuliani & Banjarnahor, 2021).

The data analysis technique employed in this study is a quantitative descriptive analysis, which involves calculating the feasibility percentage of the product (Nashrullah et al., 2023). The numerical data obtained from the completed questionnaires (assessed by media experts, subject matter experts, and students) were calculated by dividing the total obtained score by the maximum possible score, and sub sequently multiplying the result by 100%. The resulting average percentage was then qualified into categories of feasibility or practicality criteria. For instance, a range of 81% - 100% is categorized as "Highly Feasible" for product validity and "Highly Practical" or "Very Good" for the student response results .

RESULT

The Development of KAHOOT Game-Based PAI HOOT Media in Islamic Religious Education (PAI) Subject

The development process of the KAHOOT game-based PAI HOOT media was implemented in accordance with the ADDIE stages (Analysis, Design, Development, Implementation, and Evaluation). Each stage produced specific outcomes aligned with its developmental objectives. The results of the stages conducted in this research to develop the game-based instructional media can be presented as follows:

Analysis Stage

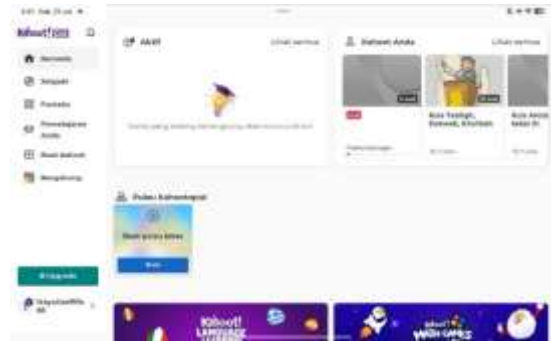
The interview results with the eleventh-grade Islamic Religious Education (PAI) teacher at SMA Negeri Kesamben Jombang, Mrs. Ririn Nurul Hidayanti, S.Pd.I., revealed that "the instructional materials utilized in the learning process are primarily student worksheets (LKS) or textbooks. The learning process tends to be teacher-centered, where the teacher explains while students mostly listen. The method employed during the learning process is the lecture method, causing students to feel bored, sleepy, and eager for the class to end quickly." Furthermore, based on an interview with one of the eleventh-grade students, the student expressed, "In my opinion, learning using Kahoot is more engaging because we can answer questions while playing. Therefore, the learning process is not overly boring."

Design Stage

In this study, the researcher designed an instructional media to facilitate the learning process in the Islamic Religious Education (PAI) subject, specifically covering the topics of Tabligh, Da'wah, and Khutbah for eleventh-grade students at SMA Negeri Kesamben Jombang, with the aim of making the learning process more effective and efficient in enhancing students' learning interest. In designing this quiz game-based media, the researcher utilized a quiz application as the initial template for its creation. The instructional media comprises learning materials and quizzes, and the advantage of this media lies in the application's capacity to facilitate both students and teachers in learning and comprehending the material. The resulting product of this design phase is the PAI Hoot Quiz. Pictures 1. And 2. below presents the initial interface of the KAHOOT application:



Picture 1. Home Screen



Picture 2. Quiz Menu Screen

Development Stage

In this stage, an evaluation by media experts was conducted to determine the feasibility of the PAI Hoot media, both in terms of its visual appearance and its usability. This assessment encompassed several aspects, including the media interface, usability, ease of operation, and the overall presentation of the media. Based on the evaluation results from two media experts, the first validator awarded a score of 119 out of a maximum score of 125, resulting in an achieved percentage of 95%. The second validator also awarded a score of 119 out of a maximum score of 125, yielding a percentage of 95%. From the evaluation results of both validators, an average percentage of 95% was obtained. Consequently, the media expert validation achieved an overall average of 95%. Based on the applied feasibility criteria, this result is classified into the "highly feasible" (sangat layak) category. This indicates that the PAI Hoot media has been evaluated favorably in terms of its interface and usability, and it is deemed suitable for use as a supplementary media in the Islamic Religious Education (PAI) learning process.

Subsequently, validation by subject matter experts was conducted to assess the alignment of the content within the PAI Hoot media with the prescribed PAI instructional materials. This assessment encompassed the relevance of the content, the accuracy of the materials, the presentation of the content, and its alignment with the learning objectives. Based on the validation results, the first subject matter expert awarded a score of 42 out of a maximum score of 55, resulting in a percentage of 76%. Meanwhile, the second subject matter expert awarded a score of 47 out of a maximum score of 55, resulting in a percentage of 85%. The average of these scores rounds to 81%. Based on the established criteria, this result indicates that the learning materials contained within the PAI Hoot media fall into the "highly feasible"

category. Therefore, the content presented in the instructional media is considered highly appropriate for use in PAI learning.

Implementation Stage

In this stage, the researcher conducted a trial of the Kahoot game-based PAI Hoot media for the Islamic Religious Education (PAI) subject which had already been validated by experts involving 36 eleventh-grade students at SMA Negeri Kesamben Jombang. The trial was conducted by the researcher by displaying the media, explaining the materials contained within the media, explaining the utility of the media, and finally posing questions to determine the students' responses to the displayed media by distributing a questionnaire containing those questions.

Evaluation Stage

The evaluation stage is the final step in the development of the PAI Hoot instructional media based on the Kahoot game platform. This evaluation was conducted to determine the feasibility and quality of the media that had been developed, following the validation process by media experts and subject matter experts, as well as the field trial conducted with eleventh-grade students at SMA Negeri Kesamben Jombang. The validation results from the media experts indicated that the PAI Hoot media received assessments confirming its compliance with aspects of visual interface, design, usability, and the overall presentation of the instructional media. Various inputs and suggestions provided by the media experts were subsequently utilized as a basis for refinements, ensuring that the media became more engaging and user-friendly for students.

Furthermore, the validation results from the subject matter experts demonstrated that the materials on Tabligh, Da'wah, and Khutbah presented within the media were well-aligned with the learning objectives and the students' capabilities. The evaluated aspects included the delivery of the instructional materials.

Student Responses

Following the validation process by media and subject matter experts, the PAI Hoot media was utilized in the learning process to determine student responses. Student responses were obtained through a questionnaire distributed to 36 eleventh-grade students at SMA Negeri Kesamben Jombang. The student response questionnaire consisted of 11 statements utilizing a 1–5 rating scale. The questionnaire was designed to assess students' perspectives on the PAI

Hoot media, covering aspects such as interface, usability, engagement, and the media's effectiveness in facilitating the learning process.

Based on the questionnaire results, a total score of 1,810 was obtained out of a maximum possible score of 1,980. After rounding, the result achieved was 91%. Based on the established criteria, the students' responses to the PAI Hoot media are classified within the "very good" category. These results indicate that the students responded positively to the utilization of the PAI Hoot media. A significant majority of the students provided high scores for each statement in the questionnaire. This demonstrates that the PAI Hoot media is perceived as engaging, user-friendly, and capable of assisting students in participating in Islamic Religious Education (PAI) lessons.

Taking into account the media expert assessment of 95%, the subject matter expert assessment of 81%, and the student response rate of 91%, it is evident that the PAI Hoot media obtained favorable evaluation results. Overall, these findings indicate that the PAI Hoot media is highly feasible for use as a supplementary tool in PAI instruction, particularly regarding the materials developed in this research.

DISCUSSION

The findings of this study indicate that the KAHOOT game-based PAI HOOT media was successfully developed through a systematic ADDIE procedure, achieving a "Highly Feasible" feasibility level from media experts (95%) and a "Feasible" category from subject matter experts (81%). The student response rate of 91% ("Very Good" category) proves that this media is capable of addressing the research problem regarding low student interest and engagement caused by conventional methods. Substantively, the effectiveness of this media in increasing student interest demonstrates that integrating gamification elements into theoretical Islamic Religious Education (PAI) materials such as Tabligh, Da'wah, and Khutbah can shift students' perceptions of PAI as a monotonous subject toward one that is more dynamic, interactive, and relevant to the digital lifestyle of eleventh-grade students at SMA Negeri Kesamben.

The results of this study are consistent with the findings of Assesanti (2021), who stated that the development of Kahoot-based interactive media can significantly increase student learning interest in Islamic Religious Education (PAI) subjects. These findings also support the view of Plass, Homer, and Kinzer, who asserted that game-based learning assists students in

comprehending material through interactive experiences that foster problem-solving. Although this study yielded a high level of feasibility, there is a contextual difference compared to the research of Ilyas & Nisa (2024), which employed a qualitative approach; this study emphasizes product development and the quantification of student responses through the ADDIE design, thereby providing empirical evidence regarding the technical and material feasibility of the media. This difference in approach is attributed to the research focus, which aimed to produce a product verified by expert validation, rather than merely observing student engagement in the classroom.

This study holds practical implications for educational institutions, particularly for PAI teachers in designing more innovative learning strategies in the digital era. Methodologically, the use of the ADDIE model proved to provide a structured workflow for teachers to compile instructional media that is not only visually engaging but also aligns with the current curriculum. These results serve as a reference for schools to facilitate the integration of technology in religious education, ensuring that religious messages are conveyed more effectively, efficiently, and enjoyably for students.

CONCLUSION

Based on the research and development conducted, it can be concluded that: First, the PAI Hoot instructional media based on the Kahoot game platform was successfully developed using the ADDIE model, which consists of five stages: analysis, design, development, implementation, and evaluation. The analysis stage revealed that, until recently, PAI instruction still relied on lecture-based methods, causing students to feel easily bored; thus, more engaging instructional media were required. The design stage involved creating a media design containing materials on Tabligh, Da'wah, and Khutbah for eleventh-grade students, complemented by interactive quizzes. During the development stage, the product underwent validation by media and subject matter experts, followed by a revision process. The implementation stage was carried out by conducting a direct trial involving 36 eleventh-grade students at SMA Negeri Kesamben. Continuous assessments were performed at each stage to ensure that the product consistently met quality standards.

Second, the evaluation results from the experts indicate that the PAI Hoot media is highly feasible for use. According to the media experts, the average feasibility percentage reached 95%, classifying it in the "highly feasible" category. From the subject matter experts,

an average percentage of 81% was obtained, falling into the "feasible" category. Student responses to this media were also highly positive, with an average percentage of 91%, which falls into the "very good" category. This demonstrates that students felt more empowered, engaged, and motivated when participating in PAI learning using the Kahoot-based PAI Hoot media.

Third, the refinements made based on the validators' suggestions successfully improved the interface, navigation between pages, animation movements, and the overall presentation of the material within the media. The content was organized to be more accessible, utilizing simple, well-structured language. The visual design was crafted to be more engaging and suitable for the characteristics of high school students, for instance, by utilizing bright colors, balanced animations, and more intuitive menus.

In general, the Kahoot-based PAI Hoot media has proven to be well-developed and effective as an alternative instructional medium for PAI at SMA Negeri Kesamben. This media is capable of addressing the issue of low student interest by providing an interactive, enjoyable, and competitive learning process. Consequently, the development of this media provides tangible benefits in enhancing the quality of PAI instruction in the current digital era.

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