

## Designing Islamic Interactive Learning Media for Elementary School Children

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**ABSTRACT:** *Engaging and interactive learning media are essential in elementary education, particularly in supporting students' understanding of the material and instilling Islamic values from an early age. This study aims to develop a digital-based Islamic interactive learning media that aligns with students' characteristics and supports the implementation of the Merdeka Curriculum. The research employed a Research and Development (R&D) approach using the ADDIE development model, consisting of five main stages: Analysis, Design, Development, Implementation, and Evaluation. The subjects of the study were fourth and fifth-grade students and classroom teachers in two Islamic elementary schools in Pekanbaru. Data were collected through observation, interviews, questionnaires, and pretest-posttest. The results showed that the developed interactive media was effective in increasing student engagement and understanding of the subject matter and character values. The average score of students' understanding of character values increased from 62.3 in the pretest to 87.8 in the posttest, indicating a 25.5-point improvement. Additionally, 90% of students reported feeling more enthusiastic about learning. Teachers responded positively to the media in terms of visual appearance, content, and ease of use. The study concludes that the designed Islamic interactive media is feasible and effective for use in elementary learning processes. It is recommended that similar media development be expanded to other grade levels and enriched with contextual and practical Islamic content.*

**Keywords:** *learning media, interactive, Islamic values, elementary school, R&D.*

### 1. INTRODUCTION

The development of information technology has brought about significant changes in education, including the provision of more varied and engaging learning media for students. In elementary schools, learning media plays a crucial role in assisting teachers in delivering subject matter and fostering students' understanding and interest in learning. In the context of Islamic education, learning media must not only be engaging but also be able to instill Islamic values from an early age.

Several previous studies have developed technology-based interactive media, but most have not specifically integrated Islamic values into learning content. (Muslim, 2024)(Mustapa et al., 2023)(Yunita & Mulyadi, 2024)Therefore, there is a literature gap regarding the development of interactive learning media that contain Islamic content and are appropriate to the characteristics of elementary school students.

This research aims to design interactive Islamic learning media by developing visual, audio, and quiz content based on Islamic values that can be used in thematic learning processes and other subjects. The problems that will be discussed in this article include: (1) what form the design of interactive Islamic learning media for elementary school children looks like; (2) how effective the media is in increasing student

engagement and understanding; and (3) how the media contributes to students' Islamic character education.

By designing interactive Islamic learning media, it is hoped that this research can contribute to the development of learning media that not only supports the cognitive aspects, but also the affective and spiritual aspects of students.

## **2. METHOD**

This research is a research and development (R&D) project aimed at producing a valid, practical, and effective Islamic-based learning media product for use in elementary school learning. This research adopts the ADDIE development model, an acronym for five systematic stages: Analysis, Design, Development, Implementation, and Evaluation. This model was developed by Branch (2009) and is considered an effective approach to designing a structured and learner-centered learning system.

R&D according to Borg and Gall aims to develop and validate educational products.(Kabatiah et al., 2023)(Jamaludin & Henderi, 2024)(Ediyanto et al., 2022)(Honga et al., tt)One of the hallmarks of R&D is an iterative process involving needs analysis, design, development, field implementation, and evaluation of the results. In this context, the ADDIE model was chosen because of its flexibility, iterative nature, and its ability to develop products incrementally with user input at every stage.

This research was conducted at two Islamic-based elementary schools in Pekanbaru City, with subjects consisting of fourth and fifth-grade students and their homeroom teachers. The Islamic-based schools were selected purposively because they were relevant to the product's objectives: to create learning media that incorporate Islamic character values in a contextual and engaging manner for elementary school students.

### **2.1 Analysis of Learning Needs**

The initial stage involved analyzing learning needs through observations of learning activities and interviews with teachers and students. Results indicated that students needed more interactive media, and teachers needed teaching aids that could effectively incorporate Islamic values. This stage involved identifying students' and teachers' needs for learning media. Direct observations of classroom learning activities and interviews with teachers and students were conducted. The results indicated that teachers faced difficulties in explicitly conveying character values in thematic learning, while students needed more engaging and interactive media. Supported by Dick & Carey's theory(Ali et al., 2024)which states that needs analysis is an important step in designing a learning system because it functions to ensure that the media developed is in accordance with real conditions in the field.

### **2.2 Design of Islamic-Based Media**

The media design involved creating a storyboard, selecting an Islamic theme, and designing a child-friendly interface. The content includes interactive Islamic stories, daily prayers, and quizzes based on character values such as honesty, discipline, and responsibility. At this stage, researchers developed a storyboard, user interface design, and content to be included in the media, such as interactive Islamic stories, daily prayers, and character values quizzes. The design was developed with child-friendly principles and included explicit and enjoyable Islamic nuances. Gagne, Briggs, & Wager (1992) emphasized that the design stage must consider the characteristics of students and learning principles so that the product developed is effective in conveying the message.(Setyosari, 2020).

### 2.3 Development and Production

The media was developed using HTML5-based digital applications and interactive PowerPoint. Audio and images were specially designed to support the delivery of Islamic messages in a fun and engaging way. According to (Plomp, 2013), the development stage in development research involves the production and validation process, so that the results have valid content and technical suitability.

Table 1. Steps in the Learning Media Process

Activity Steps	Detailed Explanation	Examples/Worked Forms
Use of Digital Applications	Media is developed using digital tools that support animation, sound, and interactivity.	HTML5 is used to create media displays that can be accessed through browsers and school digital devices (such as Chromebooks)- Interactive PowerPoint is used because it is easier for teachers to operate, with navigation buttons, transition effects, and interactive quizzes within the slides.
Islamic Visual and Audio Content Creation	To strengthen the Islamic nuance and attract students' attention	Images of Muslim children dressed modestly - Visual backgrounds with Islamic nuances such as mosques, crescent moons, or Islamic symbols - Audio in the form of Islamic story narration and daily prayer readings such as prayers before studying, filled with children's voices to make it more relatable
Integration of Islamic Character Values in the Media	Islamic values are not only inserted in the text, but are also integrated into the story content and activities.	A short story about an honest child at school, followed by reflective questions - A short animation containing the story of the Prophet or a companion with a moral message - A multiple-choice quiz asking about attitudes that are in accordance with Islamic values, such as "How should we behave when we see a friend who is not disciplined?"
Interactive Navigation Development	So that students can interact directly with the media	Adding "Next," "Back," and "Repeat Story" buttons within the media- Providing automatic feedback when students answer quizzes: "Your answer is correct! Allah loves honest children."
Expert Validation	The products developed must undergo validation from experts to ensure their quality and suitability.	Material experts (Islamic education teachers or lecturers) assess the suitability of the content with Islamic values. Media/digital learning experts assess technical aspects such as clarity of display, interactivity, and ease of navigation. Validation forms are compiled based on aspects of content, language, visual design, and functionality.

## 2.4 Implementation

The trial was conducted on fourth and fifth grade students during a science learning session. The product was tested in thematic learning in fourth and fifth grades. Teachers integrated the media into the learning, and students were given the opportunity to use the media directly in class. According to (Ali et al., 2024), field trials are important to see how the product is used in real situations and whether the media can optimally support learning objectives.

## 2.5 Evaluation

Evaluation was conducted using student and teacher response questionnaires, as well as pre- and post-tests to measure understanding of the material. Data analysis was conducted using descriptive quantitative methods. Evaluation took two forms: formative and summative. Formative evaluation was conducted during the development process for improvement, while summative evaluation was conducted after implementation, using teacher and student questionnaires, as well as pre- and post-tests to assess the effectiveness of the media on student understanding. (Tyler, 2013) states that evaluation is an integral part of the development process which aims to ensure whether the media developed is successful in achieving learning objectives.

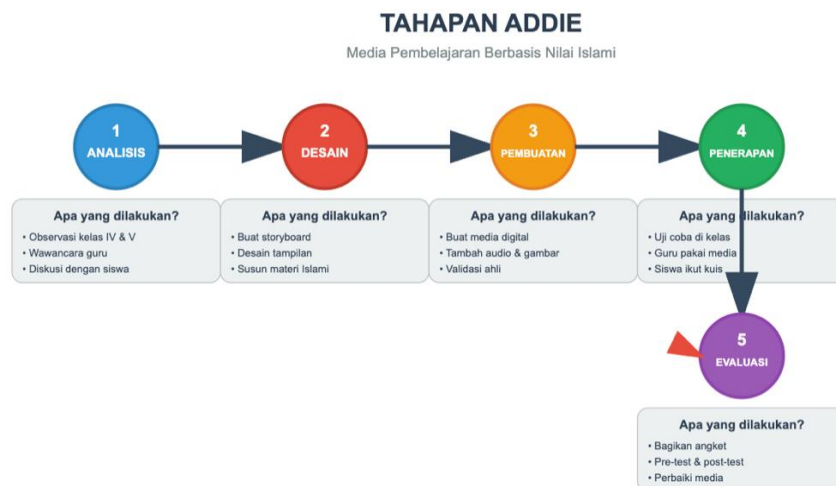


Figure 1. ADDIE Model Design Procedure

## 3. RESULTS AND DISCUSSION

### 3.1 Islamic Interactive Media Design

This interactive media is designed as a lightweight application that can be used on laptops and tablets. It features Islamic stories, educational videos, interactive daily prayers, and quizzes with engaging illustrations. This interactive media is designed as a lightweight HTML5-based application and interactive PowerPoint that can be run on laptops, tablets, and Chromebooks. It consists of four main components:

Table 2. Learning Media Components

Media Components	Feature Description
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Interactive Islamic Stories	Short stories with illustrations and audio narration, for example: “Si Umar Jujur”, which contains moral messages such as honesty, trustworthiness, and responsibility.
Thematic Learning Videos	A 2–3 minute short animated clip that incorporates character values such as helping each other, discipline, and politeness, integrated with the themes of lessons for grades IV and V.
Interactive Daily Prayer	Prayers before studying, after studying, and prayers for entering/leaving the class, complete with Arabic and Latin texts, meanings, and audio of children’s voices.
Character Values Quiz	Multiple-choice and short answer questions that test students’ understanding of story content or character values, equipped with automatic feedback (“Your answer is correct! Allah loves honest children!”).

The media interface is designed to be child-friendly, featuring Muslim character illustrations, soft colors, and simple navigation buttons. This format was deemed effective by expert media and materials validators.

### 3.2 Media Effectiveness in Increasing Engagement

Students The pretest and posttest results showed a 25% increase in student understanding after using the media. In addition, 90% of students felt more enthusiastic about learning with the media used. To measure the effectiveness of the media, a limited trial was conducted on fourth and fifth grade students in two Islamic elementary schools. Evaluation was carried out through pre-tests and post-tests as well as a student learning engagement questionnaire. To measure the effectiveness of the developed interactive Islamic media, researchers conducted a limited trial on fourth and fifth grade students in two Islamic elementary schools in Pekanbaru City. The stages of the effectiveness evaluation included:

- a) Pre-test and post-test were used to measure students’ understanding of Islamic character values after using the media. The following are the quantitative results.

Table 3. Quantitative Results of Students

Rated aspect	Before (Pre-test)	After (Post-test)	Improvement
Average score of understanding of Islamic character values	62.3	87.8	<b>+25.5 points</b>
Percentage of students who stated they were more enthusiastic about learning	–	<b>90% of students</b>	–

A pre-test was administered before the media was used, with questions measuring students’ understanding of values such as honesty, responsibility, trustworthiness, and discipline. A post-test was administered after three sessions of media use, with questions that were cognitively and content-equivalent. The following bar graph shows the increase in students’ average understanding scores before and after using the interactive Islamic media. A significant increase is evident, from 62.3 (pre-test) to 87.8 (post-test).

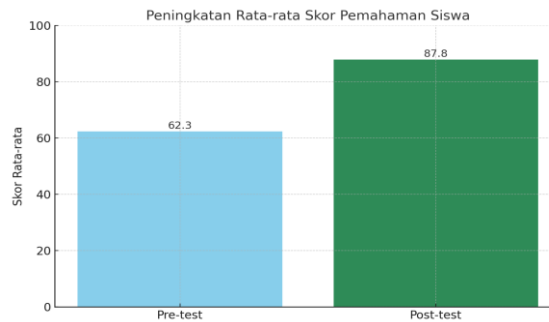


Figure 2. Graph of students' pre-test and post-test results

The results showed a significant increase of 25.5 points in the average student comprehension score. This indicates that media can contribute to students' absorption and understanding of character values in a more contextual and meaningful way.

- b) Student learning engagement questionnaire, to determine the extent to which media influences students' motivation and interest in participating in the learning process. The following are the results of the Student Engagement Questionnaire (N = 48).

Table 4. Student Questionnaire Results

Questionnaire Statement	Agree / Strongly Agree
This media makes me more enthusiastic about following the lesson.	90%
The stories and images in this media attract my attention	92%
I have become more aware of being honest and responsible.	88%
I would like to learn more with media like this another time.	94%

- c) Open-ended interviews complemented qualitative data to strengthen the analysis of user (teacher and student) responses. The following are the interview results:  
 "I now know why we have to be honest, because like Umar in the story, Allah does not like those who lie."  
*"I'm happy because I was able to answer the quiz and there were enthusiastic voices.*

These results indicate that interactive Islamic media not only functions as a teaching aid but is also capable of increasing student affective engagement. Student engagement encompasses the components of motivation, attention, and active participation in learning (Ali et al., 2024). This media indirectly facilitates all three through engaging narratives, child-friendly visual designs, and interactivity that makes students feel

“directly involved” in the story (Clark & Mayer, 2016). In the Cognitive Theory of Multimedia Learning, learning becomes more effective when students receive information through an integrated combination of text, audio, and visuals. This media has fulfilled this principle, as evidenced by the increase in students’ comprehension scores and positive responses to the learning process.

### **3.3 Integration of Islamic Values in the Media**

Islamic values are not simply presented as supplementary material but are integrated seamlessly into all media elements. Islamic values are embedded in every story and activity. For example, in the story “Si Umar Jujur,” students are encouraged to understand the importance of honesty through illustrations and reflective questions. Teachers consider this media to be very helpful in strengthening character education. Here’s a concrete example of integration:

Table 5. Forms of Concrete Integration

<b>Media Elements</b>	<b>Islamic Values Promoted</b>	<b>Form of Integration</b>
The story of “Honest Umar”	Honesty	The narrative and illustrations show Umar admitting his mistake when he didn’t do his homework.
Reflection Quiz	Trust, responsibility	Quiz question: “What did Umar do when he saw a wallet on the street?”
Daily Prayer	Trust and good intentions	Given at the beginning of the study session to instill the intention for the sake of Allah
Mini Animation	Discipline and cooperation	2 minute video about the importance of arriving on time to school and helping friends

### **3.4 Teacher and Student Responses**

Evaluation results from six teachers and 48 students showed a very positive response to the use of this interactive Islamic media. Data were obtained through a Likert-scale questionnaire and open-ended interviews. The evaluation questionnaire indicated that teachers found the media helpful in their teaching, and students found it easier to understand the material presented.

Table 6. Teacher and Student Evaluation Questionnaire

<b>Rated aspect</b>	<b>Teachers (6 respondents)</b>	<b>Students (48 respondents)</b>
Easy to use media	100% agree	92% like the look
Helps understanding the material	83% very helpful	88% better understand the story
Fun / interesting	–	90% feel happier learning
Contains Islamic values	100% very suitable	93% understand the moral message

#### **4. CONCLUSION**

The interactive Islamic learning media designed in this study can increase student engagement, facilitate understanding of the material, and serve as an effective means of instilling Islamic values in elementary school students. The media's strengths lie in its attractive visual appearance, ease of use, and integration of character values into every activity. The main weakness of this media is limited access for students who do not have digital devices. Further development is needed to adapt to a wider variety of curricula and technologies. This media is expected to become an innovative alternative for learning oriented toward Islamic character.

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