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Development of Website-Based Interactive Multimedia on the Topic of Glorifying Allah SWT by Obeying His Orders, PAI Subject Class VII SMP

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Abstract

This research is a type of development research (Research and Development/R&D) carried out at SMP Muhammadiyah 6 Padang to overcome the problem of class VII Islamic Religious Education (PAI) learning which is still teacher-centered learning and does not involve students optimally. As a solution, website-based interactive multimedia was developed to increase student involvement. This research aims to develop and evaluate the validity and practicality of this multimedia. The ADDIE model, which consists of analysis, design, development, implementation and evaluation stages, is used in the development process. Validation by experts shows that this media is "very feasible" with a score of 4.88 for media and 4.68 for material. Implementation in class VII resulted in a practicality score of 4.20, which is also in the "very practical" category. The results show that this website-based interactive multimedia is suitable for implementation in PAI learning with the topic "Glorifying Allah SWT by Submitting to His Commands."

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1. INTRODUCTION

The use of technology, especially computers, has been integrated from elementary to university levels, both in direct learning processes and administration. Technology integration in learning can be applied to various aspects, including planning, learning processes, and assessment. One use of technology in the learning process is in developing media.

Learning media is a learning tool that can help students to understand the material more deeply and interestingly. The use of learning media can create an interesting, enjoyable learning atmosphere and encourage students' learning motivation. The design of learning media needs to be adjusted to the learning objectives, students' character and the material to be presented. One of the learning media that can be used for teaching and learning activities is interactive multimedia.

Multimedia is the delivery of information or messages by combining or uniting various types of media such as video, text, images, animation and so on into one digital file with the help of computer devices. (Munir, 2015:2). Multimedia in learning is using various types of media such as text, video, images and others which are then put together and used in the learning process as suggestions for achieving learning goals. (Zainiyati, 2017: 172).

Based on the definition of multimedia according to experts, it can be concluded that multimedia is a combination of several types of media such as text, video, audio, images and animation which are packaged using the help of technology so that they can be used to convey information for certain purposes. Meanwhile, interactive multimedia is a collection of media that is arranged in such a way as to convey certain information or purposes and can facilitate interaction

between users and the media used. This allows users to have flexibility in managing multimedia channels.

Based on observations at SMP Muhammadiyah 6 Padang, it was found that teaching and learning activities, especially in Islamic Religious Education lessons, were carried out using the lecture method. According to Muawanah (2011), by using the lecture method, students only listen and some students are not directly involved, resulting in boredom in learning and some students are sleepy in class.

Based on the results of the learning module analysis, it is known that in Islamic religious education learning activities the tools and media used by teachers are modules, whiteboards, projectors, and laptops. The use of media such as Microsoft PowerPoint Slides by teachers results in one-way interaction without any feedback so it tends to make students feel bored and fed up when learning. This is because there has been no innovation in the use of learning media that can stimulate students' creativity and understanding. So, the media used has not been able to increase students' interest in learning, activeness, independence and creativity. This is because the use of learning media is not optimal.

From the results of observations in junior high schools and this background, so that learning can be carried out optimally, there needs to be innovation in learning. One innovation that can be carried out is by developing interactive multimedia in learning, especially in Islamic religious education, using Canva software and the final result is a website packaged in a more attractive format. Interactive multimedia has been widely developed by other researchers. Among them is interactive multimedia developed by Fazita, Gulo, & Effendi (2018), with concepts presented in multimedia accompanied by animation that can clarify students' understanding of the material on Colligative Properties of Solutions. Ika Hartika's research (2019) found that implementing learning using multimedia in thematic learning can improve learning activities and student learning outcomes. With the development of interactive learning multimedia, it is hoped that it can overcome students' difficulties in learning so that it can help students understand the subject matter of Islamic religious education. Apart from that, creating more enjoyable, student-centered learning and helping students to learn independently according to their abilities and level of understanding.

Based on the background above. The researcher conducted research with the title "Development of Website-Based Interactive Multimedia on the Topic of Glorifying Allah SWT by Obeying His Orders in Class VII Middle School PAI Subjects".

2. METHOD

This type of research is Research and Development (R&D) or what we know as development research. According to Sugiyono (2011:407) Research and development methods are a strategy used for create new innovations or improving the quality of existing products. The development model used, namely the ADDIE model, consists of five stages *Analysis, Design, Development or Production, Implementation or Delivery and Evaluations)* developed by Dick and Carry. The selection of this model was based on the consideration that this model was developed systematically and based on the theoretical basis of learning design. This model is structured and programmed in systematic activity rules in an effort to solve learning problems related to students' learning resources, adjusted to the needs and characteristics of students.

Product trials are carried out to determine the suitability of products made in stages, namely expert trials carried out by material experts and media experts and field trials. Material experts come from teachers at Muhammadiyah 6 Middle School in Padang, media experts, curriculum and educational technology lecturers and data from field trials by class VII students at Mumammadiyah 6 Middle School in Surakarta.

Data collection was obtained based on documentation data, material and media expert validation sheets and practicality questionnaires filled out by students. The data obtained after going through trials is divided into two types, namely qualitative and quantitative data. Qualitative data is obtained from criticism and suggestions presented by media experts, material experts and

students which will then be collected into one unit to improve the product that has been developed. Meanwhile, quantitative data was obtained from filling out questionnaires carried out by material experts, media experts and students. Then the data will be presented in quantitative descriptive data analysis or data presentation through tables.

The results of the review from material experts and media experts from the form of letter grades were converted into numerical grades, in this conversion they were equated with the criteria on the Likert Scale. Each answer is connected with a form of statement and support for the attitude expressed in the following words. Sriadhi. (2018):

5 = very good (85% ≤ X ≤100%)
4 = good (75% ≤ X < 85%)
3 = not good (65% ≤ X < 75%)
2 = not good (55% ≤ X < 65%)
1 = very bad (0 % ≤ X < 55%)

The results of the test respondents carried out by the students were converted from letter grades into numerical grades, each answer was connected to a statement and attitude support expressed in the following words:

Score 1 = Very Poor
Score 2 = Poor
Score 3 = Fair
Score 4 = Good
Score 5 = Very Good

With the aspects reviewed, then look for empirical words using the formula: $\bar{x} = x/n$

Information:
$\bar{x}$ = mean
x = number of values
n = number of respondents

Summarize the results of empirical data into descriptive data based on validity testing by material and media experts and the practicality of product users. Interpretation of multimedia feasibility is carried out through descriptive statistical calculations. Answer scores in the range 1 – 5 are tabulated and the average score is calculated. The level of feasibility is differentiated into four groups, with the ideal mean (2.50) as the feasibility limit score. The following table interprets the validation of the media used. Sriadhi

Table 1. Interpretation of the Feasibility of Learning Multimedia

No	Interval Mean Score	Interpretation
1	1,00-2,49	Not Feasible/ Impractical
2	2,50-3,32	Not Feasible/Not Practical
3	3,33-4,16	Feasible/ Practical
4	4,17-5,00	Very feasible/Practical

Sriadhi (2018).

3. RESULTS AND DISCUSSION

Results

The results of web-based interactive multimedia development were carried out in accordance with research procedures using the ADDIE method. The research results for the development of interactive multimedia are based on *Web* in PAI subjects for class VII SMP as follows:

1. Analysis

The analysis was carried out in three stages, namely needs analysis, curriculum analysis and media analysis. The results of the learning needs analysis show that there are several shortcomings. Observations of students and existing learning methods reveal that lectures are dominantly used, so that learning is less active, undifferentiated and less student-centered. The monotonous use of learning media, such as whiteboards and PowerPoint, as well as limited use of technology by teachers, causes students to quickly become bored and less motivated. To overcome this, more varied and interactive learning media are needed. The results of the curriculum analysis carried out were that the curriculum used at SMP 7 Muhammadiyah Padang was an independent curriculum, Islamic religious education and character subjects with elements of Fiqh. Based on needs and curriculum analysis, the research adopted web-based interactive multimedia as a solution. This media selection is based on the principle of differentiated learning which recognizes the diversity of student learning styles.

2. Design

The product planning stage begins with selecting Canva as the development platform. This decision was taken because Canva offers easy access and complete features for creating multimedia content. Next, a flowchart was created to visually illustrate the learning flow. This flowchart is the basis for preparing a more detailed storyboard. This storyboard is then used as a guide in designing appearance, content and interactions in multimedia. The material chosen is Islamic Religious Education material with a focus on internalizing values in prostration and prayer. The material is presented in an interesting and interactive format, equipped with videos, images and quizzes to measure student understanding

3. Development

At the development stage, the plans that have been prepared are realized in a real product that can be implemented. Activities at the development stage are creating learning media, validating the product by media experts and material experts then making revisions based on criticism and suggestions. This validation was carried out by a material expert, namely a teacher teaching PAI class VII at SMP Muhammadiyah 6 Padang named Eki Faturrahman, M.Pd, while the media experts were 2 KTP FIP UNP lecturers, namely Mr. Septriyan Anugrah. S.kom., M.Pd.T and Mrs. Winanda Amilia, S.Pd, M.Pd.T. The results of material and media validation are as follows:

a. Material validation results

Material validation took place on June 10 2024. The media expert was Mr. Eki Faturrahman, M.Pd., PAI class VII teacher at SMP Muhammadiyah 6 Padang. The aspects that are validated are Usage Guide, Content/Materials and Evaluation. Validation details can be seen in the following table:

Table 1. Material Validation

No	Assessment Aspects	Indicator	Material validator
			Assessment
1	User Guide	1	5
2		2	5
3		3	4
4		4	4
5	Content/Materials	5	5
6		6	4
7		7	5

8		8	5
9		9	5
10		10	4
11		11	4
12		12	5
13		13	5
14	Evaluation	14	5
15		15	5
16		16	5
amount		75	
Mean		4.68	
Criteria		Very Worth It	

Based on the table above, the assessment of material validation by Mr. Eki Faturrahman, M.Pd obtained an average score of 4.68 in the "Very Eligible" category.

b. Media Validation

Media validity data was obtained from two media validators, namely UNP Curriculum and Educational Technology lecturers, namely Mr. Sepriyan Anugrah, S.Kom, M.Pd.T and Mrs. Winanda Amilia, S.Pd, M.Pd.T. through the assessment sheet. Media validators examine several aspects of the learning media that have been designed. The results of the media assessment include guidelines for the use of program performance and systematics and aesthetics. Can be seen in the table below:

Table 2. Media validation

No	Aspect	Indicator	Validator 1	Validator 2	average
1	User Guide	1	5	5	5
		2	5	5	
2	Program Performance	3	4	5	4.7
		4	4	5	
		5	5	5	
		6	5	5	
		7	5	4	
3	Systematics and Aesthetics	8	5	5	4.95
		9	5	5	
		10	5	5	
		11	5	5	
		12	5	5	
		13	5	4	

		14	5	5	
		15	5	5	
		16	5	5	
		17	5	5	
Amount			83	83	14.65
Mean			4.881	4.88	
Σ Average			4,88		
Criteria			very worthy	very worthy	very worthy

Media validity data assessed by Mr. Sepriyan Anugrah, S.Kom, M.Pd.T as validator I obtained an average score of 4.88 in the "Very worthy" category. Overall, the scores obtained from validator I for each indicator were very good, namely giving scores of 4 and 5. Media validity data assessed by Mrs. Winanda Amilia, S.Pd, M.Pd.T. as validator II, an average score of 4.88 was obtained in the "Very worthy" category. namely by giving scores of 4 and 5

4. *Implementation*

To ensure that the interactive multimedia teaching materials that have been developed can provide optimal benefits for students, product trials are carried out. The implementation stage is carried out after receiving validation results from media and material experts in the appropriate category. At this stage, activities will be carried out to apply products that have been developed in learning to determine their effect on the quality of learning that is interesting, effective and efficient in learning. The application of interactive multimedia products using the web was tested on 21 class VII students of SMP Muhammadiyah 6 Padang. Based on the test results which include aspects of visual clarity, convenience, aesthetics, usefulness, the results of media practicality are obtained. The feasibility results can be seen from the assessment of each variable in the following table:

Table 9. Practicality Results

no	aspects	Mean	Information
1	Visual clarity	4.20	Very Practical
2	Convenience	4,21	Very Practical
3	Aesthetics	4.17	Very Practical
4	Usefulness	4.21	Very Practical
	Mean	4,20	Very Practical

The table above shows that the average practicality test of interactive multimedia products carried out on class VIII students at SMP Muhammadiyah 6 Padang obtained an average score of 4.20 in the category "Very Practical

5. *Evaluation*

After various validations and trials, research and development results were obtained in the form of learning multimedia products using the web that can be used for class VII science subjects in SMP/MTs.

Discussion

The development of web-based multimedia learning at SMP Muhammadiyah 6 Padang was carried out because it was found that the learning process in class VII in Islamic Religious

Education (PAI) subjects was not taking place effectively. The learning implemented is still teacher-centered learning, where students only listen to explanations from the teacher without active involvement in the learning process. The learning media used is also not able to encourage optimal student involvement.

To overcome this problem, one of the solutions implemented is the development of web-based learning media that is interactive and student-centered (student-centered learning). The use of interactive multimedia allows students to learn independently at a pace that suits their individual needs and learning styles. In line with the results of this research, Wiranti (2022) states that interactive learning media can increase interest and motivation. The use of learning media in learning orientation will really help the activeness of the learning process and delivery of messages and lesson content at that time. Interactive multimedia is able to increase students' learning motivation and meet learning needs. them by more effectively motivating student learning, as well as helping teachers create more meaningful learning experiences.

In developing this web-based learning multimedia, the ADDIE model is used as a development approach. This model consists of five stages: analysis, design, development, implementation, and evaluation.

At the analysis stage, an analysis of 3 aspects is carried out, namely needs, curriculum and media. Needs analysis identifies the media needed to support student learning through observations and interviews. Curriculum analysis determines the content that will be included in the media, including identifying and arranging material according to curriculum standards. Meanwhile, media analysis selects the type of media that is most suitable for the learning process, taking into account student characteristics and suitability to the material being taught.

At the design stage, the stage that is carried out is selecting the software to be used, where Canva is chosen as the main tool. Next, a flowchart is created which functions as a visual depiction of the flow of procedural steps from the beginning to the end of the program. The next step is the development of a storyboard that details the learning flow that has been described in the flowchart and the final stage in developing this initial product is the preparation of Islamic Religious Education material that will be used in web-based learning multimedia.

In the Development Stage, validation is carried out to assess and ensure that the learning media developed is suitable and effective for use in achieving learning objectives. Media Validation includes 3 aspects including Usage Guidelines, Program performance and systematics and aesthetics. Material validation includes aspects of content and objectives, technical and evaluation.

The results of the validation of interactive multimedia carried out by validator 1 obtained an average score of 4.88 in the "Very feasible" category. Validator II data obtained an average score of 4.88 in the "Very feasible" category. namely by giving scores of 4 and 5. And there are no aspects of the assessment that need to be corrected because previous improvements have been made in accordance with the suggestions written by the media validator. It can be concluded that learning multimedia developed from the media side is categorized as "Very Appropriate". Material validation by Mr. Eki Faturrahman, M.Pd obtained an average score of 4.68 in the "Very Eligible" category. It can be concluded that the interactive multimedia developed in terms of material is categorized as "Very feasible".

The next stage is implementation. Implementation was carried out in class VII of Muhammadiyah Middle School in Padang. Based on the results of practicality trials, an average score of 4.20 was obtained in the "very practical" category. The aspects assessed, namely visual clarity obtained an average of 4.20 in the "Very practical" category, ease obtained 4.17 in the "very practical" category, aesthetics obtained an average of 4.21 in the "very practical:" category and usefulness. obtained a score of 4.23 in the "very practical" category. According to Riduwan (2012), the steps taken in analyzing and practicality are by calculating the average number of scores obtained from respondents and then looking for the percentage of the average results. Practicality test assessment criteria can be determined.

Evaluation stage Based on the validity test and practicality test; it was concluded that this interactive multimedia product using the web received the "very suitable" category for use in class VII SMP PAI subjects. As well as being able to help students understand learning material and create student-centered learning.

4. CONCLUSION

The development of web-based learning multimedia products is carried out in accordance with procedures which include analysis, design, development, implementation and evaluation stages. This product has been validated by two media validators and material validators, with results showing that this educational game-based learning media is categorized as "very feasible," with an average score of 4.88 for media and 4.68 for material. The practicality test carried out on class VII junior high school students also showed that this product was very practical to use, with an average score of 4.20. Based on the results of the validity and practicality tests, this web-based multimedia learning product was declared suitable for use for the topic "Glorifying Allah SWT by Submitting to His Commands" in the Islamic Religious Education subject for class VII SMP.

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