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Development of the E-Module on the History of the Entry of Islam in Pekalongan Regency Based on Project-Based Learning on Learning Interests of Class X IPS Students SMAN 1 Kedungwuni

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Abstract

This study uses research and development models with descriptive quantitative analysis to describe the findings of research data. The objectives of this research are: (1) Know the stages of development of e-modules of historical learning; (2) Know the use of e-modules, and; (3) Increase the interest in learning grade X IPS 4 in SMAN 1 Kedungwuni through the use of e-module based on the local history of Islamic entry in Pekalongan Regency. The research used addie development models n-gain test analysis and linear regression. The results showed; (1) Based on the validity test of the e-module indicates that the e-module is qualified to be used as a learning resource; (2) Based on the n–gain test analysis of the pretest and posttest values obtained a figure of 0.79; (3) The development of e-modules affects the interest in learning the history of grade X IPS 4 students by 22.7% with a positive influence direction based on simple linear regression analysis.

Keywords: *E-modules, Project Based Learning, learning interests*

Introduction

Education is one of the efforts to improve the quality of human resources, where education is the basis of capital for the development and development of the nation. In national education, there is a foundation that aims to be the basis of the process and implementation of education in Indonesia; this foundation is then known as the curriculum (Bahri, 2011; Hamalik, 2008). The implementation of the curriculum in Indonesia is always experiencing changes and developments in line with the need for higher and developing education (Muhammedi, 2016; Wahyuni, 2015). The latest curriculum as the basis for education currently used is the 2013 Curriculum.

In the current curriculum, the learning tools used are learning tools that are created and developed based on the general level of education, so that learning tools with local content at the educational unit level do not experience development (Machali, 2014). It is feared that this could eliminate students' learning and knowledge about local content, where local content is important in students' understanding of getting to know their respective regions (Nafisah, 2016).

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The development of local content cannot necessarily be used as teaching material in learning. There needs to be further development to ensure that the development of local content, which is used as a guide or teaching material in the learning process, can be used in accordance with the educational foundation, namely the curriculum, where the curriculum currently used is the 2013 Curriculum. The development of local content material influences the continuity of the learning process. What is done is based on the teacher's ability to process the material, adapt the material to the characteristics of the students, and, of course, an understanding of the stages or steps in developing teaching materials (Nasir, 2013).

The development of teaching materials needs to be accompanied by mastery of information systems and technology, especially in the current educational atmosphere (Arsyad, 2011; Qasim & Maskiah, 2016; Uno, 2016; Widoyoko, 2010). Understanding that each student has their own uniqueness that differs from individual to individual, the teacher's ability to manage information and use technology and have good character in accordance with the environment and community life, are not only factors in the success of developing local content teaching materials (Hasan, 2012; Lickona, 2016; Ngamanken, 2014; However, it is the key to change from teacher-oriented learning patterns or teacher-oriented learning patterns to student-oriented learning patterns or student-oriented learning patterns, but also applying concepts or learning models using scientific approaches or active learning patterns as found in on the concept and implementation of the 2013 Curriculum (Alawiyah, 2013).

Based on the background described previously, the problem formulation in this research can be drawn as follows:

1. How is the development of e-modules in history learning?
2. How are e-modules used in history learning in class X IPS at SMAN 1 Kedungwuni?
3. What is the influence of the development of history learning e-modules on the interest in learning history of class X IPS students at SMAN 1 Kedungwuni?

Based on the problem formulation above, the objectives of this research are as follows:

1. Know the stages or steps in developing history e-modules that can be used in history learning;
2. Know about the use of e-modules on the history of the arrival of Islam in Pekalongan Regency as a medium for learning history in class X IPS 4 SMAN 1 Kedungwuni; and
3. Increasing interest in learning history for class.

Method

Development Model

The development model in this research uses the ADDIE model which is one of the development models used in developing strategies, methods, media and teaching materials (Ganesan, 2015; Hsu, Lee-Hsieh, Turton, & Cheng, 2014; Nadiyah & Faaizah, 2015 ; Peterson, 2003). To find out the procedures for the ADDIE development model, you can find out the following:

a. Analysis Stage

Analysis is the initial stage carried out by researchers before preparing learning programs and media. Problems discovered at this initial stage are then studied to find out the root of the problem and then a solution to the problem is formulated. There are several findings that are the basis for consideration in preparing programs and developing e-modules, including *First,* SMAN 1 Kedungwuni has adequate facilities and infrastructure for conducting learning, especially the availability of LCD projectors and full WiFi access in each class.

The second finding is students' low interest in studying history. This is based on short interviews between researchers and history teachers to find out how interested students are in learning history. Apart from that, observations made by researchers during initial observations found that most students did not have enthusiasm for learning, and students did not focus on the explanations given by the teacher.

The third finding, the teacher's ability to master the material is very good, but the methods used by the teacher in learning result in students not focusing. Due to limited time and teachers' lack of ability to use learning media, especially electronic learning media, teachers only provide students with limited teaching materials.

Based on the description above, researchers developed a history-learning e-module. The researchers carried out the development of the e-module because it was considered capable of presenting learning material with a combination of text, images and design that attracts students' attention so that it can be accepted and used by students in learning. It is hoped that the development of the e-module will increase students' interest in studying history.

b. Design Stage

This stage is a preparatory stage carried out by researchers before creating an e-module by creating a concept map and e-module framework. A concept map is a flow that outlines the indicators that will be achieved based on learning competencies, and the material that will be included in the e-module being developed. Determining indicators based on learning competencies is based on the syllabus for the Indonesian History subject (Compulsory

History). The e-module framework is a guide to creating e-modules. The framework consists of e-module visualization and e-module content layout design.

c. Development Stage

At this stage, it is the stage of creating an e-module that is based on the e-module framework that has been previously designed. The learning e-module production stage consists of three stages, namely the pre-production stage, production stage, and post-production stage. In the pre-production stage, researchers prepare all the requirements that will be used in the production stage of learning e-modules. such as devices that will be used in the production of both hardware and software. The production stage begins with dividing the material into several subchapters, creating a cover, table of contents, contents of the material, practice questions, learning project design, and a separate bibliography. The next stage is to combine all the parts. The final step in the production stage is to print the entire contents of the e-module that has been put together into a PDF format file. The final stage in the development stage is carrying out a feasibility test or validation of the e-module with the aim that the e-module is suitable for use in learning. The examiners consist of a media expert and a material expert.

d. Implementation Stage

The implementation stage is the stage where the e-module is applied in direct learning in class X IPS 4 in the Indonesian History subject (Compulsory History). In the first meeting, the teacher used the e-module as a tool to explain the material about the entry of Islam into the archipelago, the arrival of Islam in Pekalongan Regency, and figures who played a role in the spread of Islam in Pekalongan Regency so that students were able to understand the material presented. At the second meeting, the teacher used the e-module as a tool to explain the material on Islamic heritage traces in Pekalongan Regency and carried out the implementation stage of the learning project by solving problems contained in the student worksheets which were downloaded via the link contained in the learning e-module. In the third meeting, the teacher uses the e-module to carry out a learning project based on the project design which can be downloaded via the link in the learning e-module. Next, the teacher assesses the results of the student project.

e. Evaluation Stage

The evaluation stage is the final stage in this development model. At this stage, the researcher evaluated the use of e-learning modules. The evaluation clarified the use of e-modules in increasing students' interest in studying history in class X IPS 4 regarding the introduction of Islam in the Pekalongan Regency.

Population and Sample

The population taken in this study is shown in the following table.

Table 1. Number of students in class X IPS SMAN 1 Kedungwuni

Class	The number of students
X IPS 1	36
X IPS 2	36
X IPS 3	36
X IPS 4	36
Total Population	144

In this study, the sample used was class X IPS 4 students with a sample size of 36 students. The sampling technique in this research uses a simple random sampling technique (Gupta & Shabbir, 2008; Meng, 2013; Stanek III, Motta Singer, & Lencina, 2004).

Data Analysis Techniques

The data analysis technique in this research uses descriptive statistical analysis or also called quantitative descriptive (Sholikhah, 2016; Sugiyono, 2014, 2016).

a. Data Normality Test

The normality test was carried out using the Kolmogorov-Smirnov normality test. This normality test determines whether the residual values are normally distributed. This normality test uses questionnaire data on the development of history learning e-modules and questionnaire data on interest in learning history for class X IPS 4 students obtained during the research. To find out the residual value of the Kolmogorov-Smirnov normality test, see the following table:

Table 2. Kolmogorov Smirnov Normality Test Residual Data

One-Sample Kolmogorov-Smirnov Test		
		Unstandar. Residual
N		36
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	6,07090107
Most Extreme Differences	Absolute	,110
	Positive	,110
	Negative	-,084
Test Statistic		,110
Asymp. Sig. (2-tailed)		,200[c,d]

Based on the output data table above, a significance value of 0.200 is obtained. From the normality test using the Kolmogorov-Smirnov formula, it is known that the significance value is 0.200 > 0.050, so it can be concluded that the residual value or research data is typically distributed.

b. Analysis of E-Module Development Questionnaires

In calculating the acquisition (percentage) of the results of filling out the questionnaire using the following Likert scale formula:

$$presentase = \frac{\text{skor yang diperoleh}}{\text{skor maksimal}} \text{ x } 100\%$$

The results of the e-module feasibility test are as follows:

1) Media expert

Table 3. Media Expert Eligibility Test

No	Aspects	Value (%)	Cat.
1.	Graphic	91(84%)	Very Good

Based on the results of the validation test by media experts, as shown in the table above, the results of the graphic feasibility aspect of 84% were obtained, which are included in the very good category.

2) Material expert

Table 4. Media Member Qualification Test

No	Aspects	Value (%)	Ket.
1.	Others	33(83%)	Very Good
2.	Sajian	25(89%)	Very Good
3.	Language	33(92%)	Very Good

Based on the results of the validation test by material experts, as shown in the table above, the results of the content feasibility aspect of 83% were obtained, which were included in the very good category, the presentation feasibility aspect of 89%, which was included in the very good category, and the linguistic feasibility aspect of 92% which was included in the very good category. The data above shows that the learning e-module is very good to use based on the feasibility of the content, the presentation aspect, and the linguistic aspect.

c. Analysis of Learning Interest Questionnaire

In determining the increase in students' interest in learning before and after treatment, the researcher used N-gain test analysis by calculating the posttest and pretest scores as follows:

$$N - gain\ (g) = \frac{skor\ posttest - skor\ pretest}{skor\ maksimal - skor\ posttest}$$

The criteria in the N-gain formula are as follows:

Table 5. N-gain Formula Criteria (g)

Interval	Criterion
g > 0.7	Tall
0.3 ≤ g ≤ 0.7	Keep
g < 0.3	Low

Information:

N-Gain (g) : big factor Gain (g)

Score posttest : Final Test Result Score

Score Pretest : Initial test result score

Maximum score : the maximum number of points in the test

d. Analysis of Independent Variables and Dependent Variables

In determining the influence between the use of history learning e-modules and history teaching interests, the researcher used simple linear regression analysis to determine the relationship between the development of e-modules and students' interest in learning history utilizing the help of SPSS as follows:

Table 6. Regression Coefficient Simple Linear

Coefficientsa					
	Unstd. Coef.		Std. Coef.		
	B	Std. Error	Beta	t	Say.
Cos.	30,008	8,924		3,363	,002
X	,514	,142	,527	3,612	,001

Based on the output table above, the calculated t-value of 3.612 is greater than the > of the t-value of the table of 2.032, so it can be seen that the independent variable or variable of the use of the e-module developed affects the dependent variable or variable of students' learning interest in learning history, the calculated t-value is 3.612.

Results and Discussion

Results of the Use of E-Modules in Increasing Students' Interest in Learning History

Based on the use of e-modules, data on learning interest scores before using e-modules were obtained 39,444. The data was obtained by testing the pretest questions at the first meeting, and the average score of students in one class was used. Meanwhile, the value of learning interest after using the e-module was 87,111. The data was obtained based on the testing of posttest questions at the third meeting, and the average score of students in one class was used. The results of the n-gain test stated that there was an increase in the learning interest of students in class X IPS 4, which was a high category with an n-gain test score of 0.79. For more details, please see the following table:

Table 7. n– gain Value Testing

No.	Treatment	Value
1.	Average *pretest score*	39,444
2.	Average *posttest score*	87,111
3.	Maximum value	100
4.	Test results n-gain	0,79
Conclusion of n-gain test results		Tall

Discussion

The use of e-modules for learning the history of the entry of Islam in Pekalongan Regency provides enthusiasm for students to learn, and the interaction between students and teachers is said to be good so that students can receive the material well. Student enthusiasm is evidenced by increased learning activities, which include questions and answers, student readiness at the time of learning, and student activeness in doing tasks ordered by the teacher. This is based on a comparison between the initial observations made by the researcher and the researcher's implementation of learning using e-modules (Hapsari, Suyanto, and Budiwati, 2016; Winaya, Darmawiguna, & Sindu, 2016).

Based on the observations made by the researcher, the use of this e-module was well received by students. Students become more active in asking questions about material that has yet to be understood through e-modules; besides that, students' enthusiasm to acquire e-modules is very good. Student enthusiasm is interpreted as students' enthusiasm to acquire knowledge in learning; students are more active in learning by conducting questions and answers and having discussions with students during the assignment given by the teacher. Thus, students show

increased interest in learning history through history learning e-modules. This is also evidenced by the analysis of the n-gain test on the pretest and posttest, which showed a result of 0.79. These results show that student interest is relatively high according to the n-gain test criteria. Meanwhile, based on the results of the two-variable hypothesis test, using a simple linear regression analysis to determine the magnitude of the influence of the history learning e-module on students' interest in learning history, it showed that the history learning e-module had a positive effect on students' interest in learning history with a percentage of 22.7%. In comparison, 77.3% were influenced by other variables not studied.

Based on this analysis, it means that the independent variable or variable of the use of history learning e-modules affects the dependent variable or variable of students' interest in learning history. Analysis using simple linear regression shows that the influence of the use of e-modules developed in history learning influences students' interest in learning history and can increase students' interest in learning history by 0.79 based on the analysis of the n-gain test (Asyhar, Afrida, & Widiastiningsih, 2015) which is included in the category or high criteria. In addition, observations during the learning process show that there is enthusiasm among students. So the use of history learning e-modules about the history of the entry of Islam in Pekalongan Regency is considered to have been successfully developed into a learning medium useful for history learning.

Conclusion

Based on the results of the research and the description of the discussion in the previous chapter, it can be concluded that the development of history learning e-modules is carried out with the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) development model against the background of low interest in learning history. This happens due to the lack of variety of learning media chosen by teachers during history learning. Teachers do not have much time to create creative and interactive learning media. Therefore, student interest is relatively low. Students' enthusiasm for learning and student activity during learning did not go well, so students tended to be silent and less interactive during learning both through questions and answers and other means.

The e-module of learning the history of the entry of Islam in Pekalongan Regency carried out at SMA N 1 Kedungwuni shows that the use of e-modules is considered in accordance with the development process and behavior patterns of students in the present who are close to technology and gadgets. In addition, the history learning e-module has gone through a validation test process from media experts and has received a very good predicate and is

suitable for use in learning with a percentage of 84% reviewed from the aspect of graphic feasibility. Meanwhile, material experts gave very good predicates. They were suitable for use in learning with presentations 83% reviewed from the aspect of content feasibility, 89% reviewed from the aspect of presentation feasibility, and 92% reviewed from linguistic feasibility.

Using history learning e-modules can increase students' interest in learning history. This is evidenced by the learning interest questionnaire given to students. Based on the analysis of the n-gain test, students' interest in learning history increased by 0.79, which, if included in the criteria of the gain factor for increasing student interest, is relatively high. Meanwhile, based on the analysis of two variables using simple linear regression, the use of history learning e-modules positively influences the increase in students' interest in learning history, with a percentage of influence obtained at a value of 22.7%.

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