International Journal of Multicultural and Multireligious Understanding

http://ijmmu.com
editor@ijmmu.com
ISSN 2364-5369
Volume 5, Issue 6
December, 2018
Pages: 9-15

Development of Interactive Multimedia in Learning Islamic Education

Reda Ramadhani*; Ali Muhtadi

Yogyakarta State University, Indonesia
Email: redaramadhani14@gmail.com

http://dx.doi.org/10.18415/ijmmu.v5i6.488

Abstract

This development research aims to: 1) produce interactive multimedia learning products for senior high school students in Islamic Religious Education subjects; 2) find out the feasibility level of the products developed. The research method refers to the Allesi & Trollip development model which is grouped into three development steps, namely: a) planning; b) design, and c) development consisting of components that cover standards, ongoing evaluation, and project management. This research produces interactive learning multimedia products in the form of Compact Disk (CD). The results of the product feasibility assessment score through the alpha test on material experts were 4.0 (feasible) and the media expert was 4.1 (feasible). In the beta test, the assessment results obtained were 4.0 (feasible).

Keywords: Interactive Multimedia; Learning; Islamic; Education

Introduction

Islamic religious education (PAI) is one of the subjects in every level of education. These subjects are expected to provide contextual and meaningful learning experiences in education. Learning experiences that are not verbal and imaginative, but learning activities that take place in the context of real life, clear and necessary in life. The general purpose of PAI learning is to foster and enhance faith through the giving and fertilizing of knowledge, appreciation, practice and experience of students about the religion of Islam so that it becomes a Muslim man who continues to grow in terms of faith, piety, nation, and to be able to continue at the level of higher education.

Islamic Economic Principles and Practices are one of the materials taught in Islamic Religious Education learning. The concept requires an abstract level of thinking because the concept must be clear, so that there is no misunderstanding and its application in real life. Today many people choose an easy way to practice economics and forget the principle of economic practice that has been regulated in the teachings of Islam. Economic practice is considered trivial by excluding the principles that apply in Islamic teachings. For example in terms of buying and selling, stockpiling goods or services needed by the community. This is the impact of the incorrect implementation of the economic practice principle.

Islamic Religious Education (PAI) is one of the efforts that can be done in increasing the knowledge of the true Islam. This knowledge can be obtained through the learning process of formal education in schools. Islamic Economic Principles and Practices are very close to daily life and examples

often occur and are encountered in real life because they can help and facilitate learning, but in fact students say the material is quite difficult and abstract so it is not easy to understand.

The same thing happened in SMA 6 Yogyakarta, students of SMAN 6 mostly also had difficulty learning the subject matter of the Principles and Practices of Islamic Economics. This can be seen from the learning results achieved by students. The results obtained have not reached the minimum completeness criteria set. Learning also still tends to use a one-way learning model that is a learning model that is still teacher-centered, in which the learning process still uses printed books as learning resources. Students only learn material through textbooks that are only presented through still images so that the lessons become less meaningful, because of that there are difficulties for students in receiving and understanding the subject matter.

The difficulties faced by students so far in the process of learning the Principles and Practices of Islamic Economics are difficulties in providing examples of true economic practice in a concrete manner, because all this time students have only learned through textbooks without visualizing in real life so that learning only memorizes according to the existing context in the end it becomes meaningless because never see examples or simulations and practices directly. therefore to facilitate understanding in learning materials Islamic Economics Principles and Practices required multimedia that can visualize examples concrete from these economic practices in real life.

Responding to these problems so that the learning of Islamic Education becomes better and does not continuously impact on the low quality of learning, the researchers see the need to develop learning media for Islamic Religious Education in the form of interactive multimedia. This media is presented in an animated and video display so that it can improve students' understanding of the material and be able to replace the direct learning experience. Patel (2013: 122) said that the application of multimedia in learning can help students understand the material being taught and can increase the interest and motivation of students in learning. The same thing was also revealed by Gilakjani (2012: 57) that multimedia can make students learn more actively.

Multimedia is a combination of two words, namely multi which means a lot and the media is interpreted as a tool used to convey information. Multimedia is a combination of several media such as tek, image, sound, animation, video and others synergistically using a computer or other electronic equipment in achieving certain goals (Surjono 2017: 2). Mayer (2009: 3) defines multimedia as delivering material using words and pictures. Vaughan (2011: 1) means that multimedia learning is a combination of text, art, sound, animation, and video delivered to one (learners) by a computer or other electronic and digital manipulation equipment. Through this combination of media the learning experience becomes something interactive that reflects an experience in everyday life.

Multimedia learning is chosen because it has a distinctive advantage compared to other media. According to (Philips., 2013: 11) among these advantages are: 1) mixed media, combining various existing conventional media into one type of interactive media. The Learning Process certainly requires some media in the form of both visual and audio media, with multimedia media collections packaged in one form; 2) user control, allows users to learn teaching material in accordance with their abilities and knowledge and can learn independently according to the material needed; 3) simulation and visualization, with animation technology, simulation and visualization of users can get more real information and abstract information. The new information is still in the form of something abstract, because it requires media that can help absorb the information; 4) different learning styles, multimedia has the ability to accommodate users with different learning styles.

Students with the tendency of auditory learning styles can absorb information when using audio media, visually using images and video, kinesthetic with movement. Multimedia can combine the media used so that the learning styles can be resolved. The use of multimedia interactive learning in class is

supported by the results of research conducted by Alsadhan, and Alhomod, (2014: 26) The use of Mulltimedia in learning is very influential because multimedia in learning can transform traditional media such as books, numbers and written material into interactive that allows students to learn in a different style so that students learn more actively and fun. Accounts and Akkoyunlu (2008: 11) also reveal that the use of multimedia that can be controlled by students can increase passion in learning. Learning benefits are 56% greater, better learning consistency 50-60% and content retention 25-50% higher (Reddi & Mishra., 2003: 32). Based on the results of several of these studies, multimedia learning can be said to be a media that has enormous benefits in helping the learning process.

In terms of its use multimedia is divided into two types: 1) linear multimedia; 2) interactive multimedia. Multimedia that will be used in this research is interactive multimedia learning. Interactive multimedia is a multimedia that is equipped with a controller and can be operated by users (students) so that they can choose what to do in the next process. Interactive multimedia is the display of a multimedia created by the designer so that its appearance can fulfill the delivery function of a message and has interactivity for its users (Munir., 2013: 110). From the above understanding, it is concluded that interactive multimedia is a display that is designed to fulfill the function to convey messages or content and have interaction with the user.

Multimedia As a solution in solving problems found in these schools, interactive multimedia is developed with attention to the cognitive aspects in accordance with the curriculum and problems in the learning process. The use of multimedia has a positive impact on students in the learning process including: 1) The learning process is more interesting, and interactive; 2) The amount of teaching time with lectures can be divided; 3) Learners are more motivated; 4) The teaching and learning process can be done at any time independently; 5) Student care can be improved and more focused (Ariani & Haryono., 2010: 26).

Methodology

This study uses research and development models or Research and Development (R & D) which refers to the development model of Alessi & Trolip. This development model consists of three attributes, namely standards (standards), ongoing evaluation (ongoing evaluation), and project management (project management). The steps for the development of alessi and trollip consist of three stages, namely planning, (planing), design (design) and development (development) Alessi & Trollip., 2001: 49).

The approach used is quantitative which is translated into qualitative data to determine the feasibility of the products produced. This research was conducted at SMA 6 Yogyakarta. The alpha test is carried out by 2 material experts and 2 media experts to assess and evaluate the products developed before being tested. The beta test was conducted on 23 students of class XI Science, in the implementation of this development model adapted to the needs of the field and the scope of the research implementation. Data collection uses questionnaire instruments, observation and interviews. The data were processed using qualitative analysis and descriptive techniques. The data obtained were converted into values on a scale of five, with categories $x > 4.2$ very feasible, category $3.4 < x \leq 3.4$ feasible, category $2.6 < x \leq 3.4$ quite feasible, category $1.8 < x \leq 2.6$ less feasible, category $x \leq 1.8$ not feasible.

Results and Discussion

This research and development is focused on developing interactive learning multimedia products, product feasibility is assessed by material experts and media experts and product testing to encourage cognitive aspects of high school students. The results of this research and development are interactive multimedia learning. The data in this study were obtained from alpha and beta tests. There are 4 aspects assessed by the material experts which are outlined in 16 indicators. The results of the assessment of material experts 1 and 2 on all aspects and indicators were obtained on average 4.0 with a decent category. So the second assessment of ali material was 4.0. The following diagram is the result of expert material assessment.

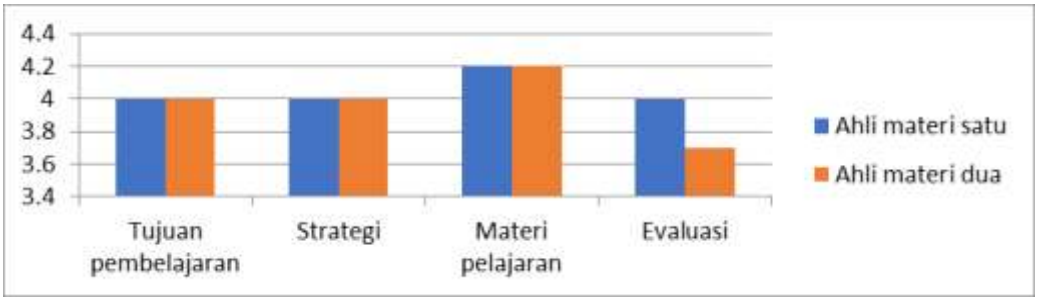

Fig. 1 Assessment results of material expert

The assessment of material experts 1 on the aspect of assessment above is that the objective aspects obtained average 4.0 are categorized as feasible, the strategy aspect 4.0 is categorized as feasible, the material aspect 4.2 is categorized as feasible, and the evaluation aspect 4.0 is deemed appropriate. The assessment of media experts 2 on the aspect of objectives was obtained average 4.0 categorized as feasible, aspects of learning strategies 4.0 were categorized as feasible, aspects of 4.2 were categorized as feasible, and aspects of evaluation 3.7 were categorized as feasible. Furthermore, the assessment of media experts, there are 5 aspects assessed by media experts which are translated into 21 indicators. The results of the media expert evaluation 1 on all aspects and indicators were obtained on average 4.1 with a decent category. Overall expert material 2 assessment was obtained in average 4.0 categories. So the assessment of the two media experts as a whole can average 4.1. The following diagram results from the assessment of media experts.

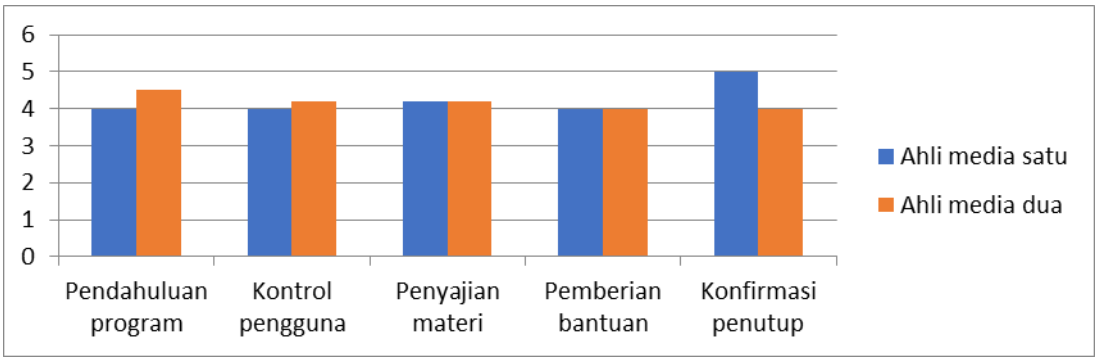

Fig. 2 Media expert assessment results

The evaluation of media experts 1 on the above aspects of assessment is that the preliminary aspects of the program can average 4.0 feasible categories, the control aspect of the 4.0 is feasible

category, the aspect of presentation of material is obtained in average 4.2 categories worthy, aspects of assistance 4.0 4.0 categories are feasible, and the closing aspect of the program was obtained by means of 5.0 very feasible categories. Media expert assessment 2 on the preliminary aspects of the program in Rereta 4.5, which is categorized as very feasible, the control aspects of the users obtained are 4.2 categorized as feasible, the aspects of presentation of material obtained average 4.2. There are 3 aspects assessed by the user which are translated into 25 indicators. Overall assessment of users (students) was obtained in 4.03 categories.

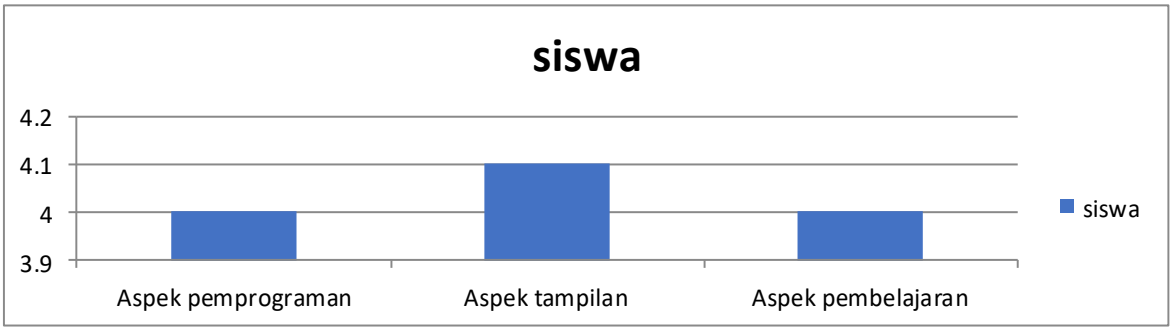

Fig. 3 Beta test results (assessment results obtained from users (students)

Based on Figure 3, assessment of users (students), it is known that the aspect assessed is the aspect of programming obtained on average 4 with a decent category. The aspect of display was obtained in average 4.1 feasible categories, and the learning aspect was obtained in the average of 4 feasible categories.

This interactive multimedia assessment score as a whole is stated in the "decent" category which means that the product is feasible both in terms of material, media, and users (students). from the aspect of the user (students) the content compiled in this interactive media has been adapted to the needs of students so that it can further sharpen students' understanding of the concepts learned. Media aspects, this interactive multimedia learning provides various formats such as text, images, animation, video, sound that provide a variety of learning experiences to students. material aspect, the material content in this interactive multimedia learning is arranged based on various reference sources that are adjusted based on the principles of learning theory to achieve optimal learning objectives.

After conducting trials and studies of interactive multimedia products, found several advantages and disadvantages of these products including: Interactive learning multimedia developed has the advantage of First, developed based on the principles of multimedia learning. Second, developed based on behavioristic, cognitive, and constructivist learning theories. Third, innovative and adapted to the characteristics of students. Fourth, the category is feasible to encourage cognitive aspects in high school students with the results of the assessment of material experts with a mean of 4.0, media expert 4.1, and 4.03 beta test. Fifth, can improve student learning activities.

The weaknesses of multimedia interactive learning developed are as follows. First, the program can only be run on a computer or laptop because the media developed is only limited to the exe file format. Second, the products developed are designed to help students on just one subject about the material of Islamic Economic Principles and Practices. Third, this interactive learning multimedia product

has not been used with a smartphone. Fourth, this multimedia can run smoothly even with a low specification computer.

Conclusion

The interactive multimedia products produced are in the form of Compac Disk (CD) pieces. The development of interactive multimedia learning is aimed at high school students on the material of Islamic Economic Principles and Practices. The content in interactive multimedia consists of various media components such as text, images, video, animation, sound, and various navigation key features. For the results of the feasibility test based on the results of the alpha test of the two material experts as a whole can average 4.0 with the category "feasible", and both media experts overall 4.1 with the category "feasible", and the results of the beta test on the large group test obtained the overall average is 4.0 " feasible " category.

References

Alessi, S. M., & Trollip, S. P. (2001). Multimedia for Learning: Methods and Development (3rd ed.). Boston: Allyn and Bacon.

Alsadhan dan Alhomod. (2014). Multimedia Based E-learning: Design and Integration of Multimedia Content in E-learning. Journal Education Volume 9(3): 26-30. retrieved from http://.doi.org/10. 3991/ijet.v9i3.3308.

Daryanto. (2013). Inovasi Pembelajaran Efektif. Bandung: Yima Widya.

Gilakjani, Abbas Poerhesoin. (2012). The Significan Role of Multimedia in Motivating Efl Learnears Interst in Ingglish Language Learning (versi elektronik). Internasional jurnal of modern education and computer science (IJMECS) 4: 57-66. retrieved from. http://doi.10.5815/ijmecs.2012.04.08.

Mayer, R. E. (2009). Multimedia Learning Prinsip-Prinsip dan Aplikasi. (Terjemahan Teguh Wahy Utomo) New york: Combridge University Press.

Murnir. (2013). Multimedia Konsep dan Aplikasi dalam Pendidikan. Bandung: Alpa beta.

Patel, Chiragh. (2013). Use Of Multimedia Teknologi in Teaching and Learning Communication Skill: And Analisis (Versi Elektronik). Internasional jurnal of at vances in reserch & teknologi, 2(7): 116-123.

Philips, R. (2013). The developer's Handbook to Interactive Multimedia (A practical Guide for Educational Applications. New York.: Routledge.

Reddi, U. V, & Mishra, S. (2003). Educational Multimedia: A Handbook for Teacher-Developers. New Delhi: CEMCA.

Surjono, Herman. (2017). Multimedia Interaktif Konsep dan Pengembangan. Yogyakarta:UNY Press.

Copyrights