

DEVELOPMENT OF PENCAK SILAT LEARNING MEDIA BASED ON MACROMEDIA FLASH 8

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Abstrak. Tujuan dari penelitian ini adalah untuk mengembangkan multimedia interaktif pada bahan Pencak Silat menggunakan aplikasi Macromedia Flash 8 untuk kelas VIII dan untuk mengetahui kelayakan, kepraktisan dan efektivitas media pembelajaran menggunakan Macromedia Flash 8. Model pengembangan yang digunakan dalam penelitian ini adalah model pengembangan Borg dan Gall. Aplikasi berdasarkan hasil uji validitas dari ahli materi diperoleh nilai 4,33 dalam kategori "Valid" sehingga materi itu dinyatakan baik untuk digunakan. Dari hasil pengujian validitas ahli media, diperoleh nilai 4,09 dengan kategori "Valid". Sehingga dapat disimpulkan bahwa media pembelajaran ini layak dan dapat diuji. Selanjutnya berdasarkan uji kepraktisan diperoleh rata-rata 4,05 dengan kategori "Praktis". Hasil uji efektifitas, hasil thitung > ttabel adalah 2,12 > 1,73. Sehingga dapat disimpulkan bahwa pembelajaran multimedia interaktif materi Pencak Silat kelas VIII menggunakan aplikasi Macromedia Flash 8 praktis dan efektif digunakan sebagai media pembelajaran untuk Pencak Silat

Kata kunci: Pencak Silat; Media Pembelajaran

Abstract. The purpose of this study is to develop an interactive multimedia on *Pencak Silat* materials using the application Macromedia Flash 8 for grade VIII and to find out the feasibility, practicality and effectiveness of learning media using Macromedia Flash 8. The development model used in this study is the development model of Borg and Gall. Applications based on the results of the validity test from the material experts obtained a value of 4.33 in the "Valid" category so that the material was declared good to use. From the results of the validity testing of media experts, it was obtained a value of 4.09 with the category "Valid". So that it can be concluded that this learning media is feasible and can be tested. Furthermore, based on the practicality test obtained an average of 4.05 with the category "Practical". The results of the effectiveness test, the results of tcount > ttable are 2.12 > 1.73. So that it can be concluded that the interactive multimedia learning of *Pencak Silat* material grade VIII using the application of Macromedia Flash 8 is practical and effectively used as a learning media for *Pencak Silat*

Keywords: Pencak Silat; Learning Media

INTRODUCTION

Physical Education, Sports and Health (PESH) as an important component in education has been recognized by many people. However, in its implementation, the PESH has not run effectively as expected. Learning still tends to be conventional. As a result, interest, attractiveness and motivation of students tend to decline. Moreover, PESH is not one of the materials tested in the National Examination. Accompanied by rapid technological developments and the launch of the Industrial Revolution 4.0, a new paradigm is required in the process of

learning. Learning orientation must be adjusted with the children development, content and material as well as the way of delivery must be adapted to the development so that it will be interesting and fun (Samsudin: 2008).

The scope of physical education, sports and health in junior high schools according to the Regulation of Minister of Education Republic of Indonesia No. 23 (2006: 23-24), "About the Standard of Competence of Graduates for Junior High School grade VII, VIII, and IX includes (1) Sports and games, (2) Gymnastic Activities,

(3) Aquatic Activities, (4) Fitness Activities, (5) Outside Class education, (6) Healthy Living Habit. One of materials of the sports and games is martial arts learning, namely *Pencak Silat*. *Pencak Silat* is one of the martial arts in Indonesia. It can be played individually, in pairs or teams. Mastering *Pencak Silat* requires basic techniques of *Pencak Silat* (Ihsan, 2017).

In learning *Pencak Silat*, a touch of technology is needed in the learning and practice process (Ihsan, 2018) so that students have the knowledge and are able to practice the basic skills of *Pencak Silat*. However, in the fact that there are many materials that must be delivered and mastered by a teacher, problems often arise in the learning process of *Pencak Silat*. The problems include the limited mastery of the material, especially the material about *Pencak Silat*, so it is often overlooked. Seeing those problems, PESH teachers need multimedia learning that can make learning activities more effective, especially in *Pencak Silat*. The theory of media use in the teaching and learning process is proposed by Dale's cone of experience that the influence of media in learning can be seen from the level of learning experience that will be accepted by students. In addition, individual concentration also affects learning outcomes in *Pencak Silat* (Ihsan, 2018).

Reviewing the existing problems, a learning media needs to be developed as a PESH teacher's tool to deliver *Pencak Silat* material to junior high school students so that the competence of the material can be achieved. There are several media that can be developed to assist in the learning process. Various types of media, multimedia can be seen to be developed to assist in the learning process. Various types of media, multimedia is considered effective to be developed as a learning media for *Pencak Silat* for junior high school students.

There are two categories of learning multimedia, namely linear multimedia and interactive multimedia. Interactive multimedia, that is, users can fully control what and when the multimedia elements are displayed. There are several forms of

computer use as multimedia in learning, namely the use of multimedia presentations, Compact Disc (CD), interactive multimedia, and learning videos. Interactive multimedia CDs are quite effective in improving student learning outcomes; the nature of this media besides being interactive is also being multimedia. There are complete media elements which include sound, animation, video, text, and graphics (Rusman, 2012: 67).

Based on the description above, the researchers are interested in developing multimedia for *Pencak Silat* material based on technology using the Macromedia Flash 8 application which is expected to make junior high school students can absorb the material in learning physical education, sports, and health well. A multimedia development of *Pencak Silat* learning is needed for physical education, sports and health based on Macromedia Flash 8 applications.

METHOD

This type of research is development research known as Research and Development (R & D) by adopting the research model development of Borg and Gall (2013). This study aims to develop learning media in PESH that will be validated by experts. Data validity testing was done by expert review testing or construct validity testing. Experts involved in this study were 3 learning media technology experts, 3 curriculum experts and 3 *Pencak Silat* experts.

After revising the initial product development, then the next step was to test the product. The trial was conducted to determine the effectiveness of the product being developed. The trial was conducted on 20 students of grade VIII SMP Pembangunan Laboratorium UNP. Data collection instrument in this study was: questionnaires. The type of questionnaire that the researchers used was a Rating scale, that is a statement followed by columns that indicate the levels or scale of measurement, for example from very agree to strongly disagree. After the data were collected in this study, they were then analysed by analysis techniques of validity and practicality.

Data obtained through validity and trial activities were classified into two, namely quantitative data and qualitative data. Qualitative data regarding the quality of media were obtained from input suggestions and criticism from media experts and material experts, and test subject students, collected and concluded to improve the products developed. To prove the effectiveness of the use of interactive multimedia using the Macromedia Flash 8 application, it needed to be tested statistically by using the t-test formula. t-test can be used to analyze the differences in the results of the pre-test and post-test or the results of the study using pre-test and post-test one group design with a significance level of α 0.05. If $t_{\text{observe}} > t_{\text{table}}$, it can be concluded that there was a significant difference between the value of the pre test and the value of the post test.

FINDINGS AND DISCUSSIONS

Trial Results

Learning media that have been assessed by media and material experts were then revised and undergo the trial phase. This trial involved 20 students of class VIII SMP Pembangunan Laboratorium UNP. The following are the results of the evaluation of the trial.

Table 1. Trial Result

	Variabel	Item	R	%	Ket.
1	Desain Media	1-5	4,31	83%	Praktis
2	Penyajian	6-10	4,06	82%	Praktis
3	Kemanfaatan	11-15	3,97	79%	Praktis
	Rata-rata (R)		4,05	81%	Praktis

The following is a bar chart view of the data contained in the trial table

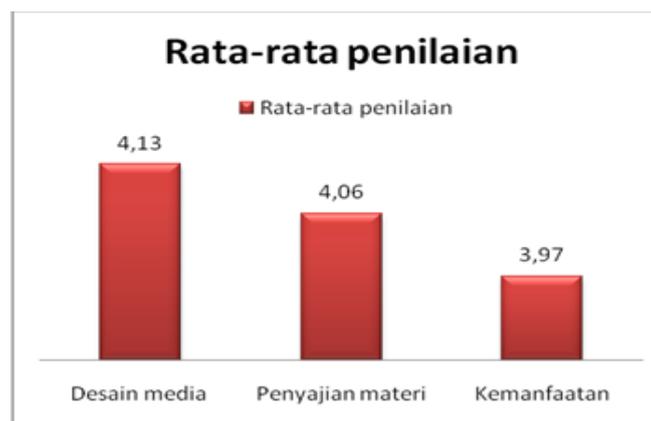


Figure 1. Diagram of trial results

Based on the trial results data from 20 students, it can be seen in Table 1, the average is 4.05 with a percentage of 81% in the very practical category. In overall the product aspects are already in the practical category. From the results of the trial, it can be seen that the media design variable obtains an average of 4.13 with a percentage of 83%. The material presentation variable obtains an average of 4.06 with a percentage of 82% and the advantage variable obtains an average of 3.97 with a percentage of 79%. Then it can be concluded based on the criteria contained in the practicality test on students, the products produced belong to the practical category in terms of media design, material presentation and usefulness.

Discussion

After going through the development steps, the learning media product for *Pencak Silat* was produced based on Macromedia Flash 8 application. The steps taken for development were (1) Planning, (2) Initial Product Development, (3) Product Validity, (4) Product Revision, (5) Trial, (6) Final product. After going through the planning stage and product development, the next step is product validation. Product validation is done to determine the level of feasibility of the learning media. According to Emzir (273: 2012) Product validation is a process of assessing product design carried out by giving an assessment based on rational thinking, without testing in the field. This validation can be done by asking several

experts in the field to assess the design of the products we make.

In accordance with Emzir's opinion, researchers here validate the products to several experts. The experts were asked to assess the product developed by filling out the questionnaire provided by the researchers. After the media was validated then revisions were made according to suggestions and comments from experts. After revising the product, the next step was that the media tested on students. In a trial to find out the practicality of learning media developed by researchers, they conducted a practicality test. In the practical testing, the assessment was carried out by students. The test results were then analysed using descriptive quantitative method to determine the practicality of the media.

The results of the media expert's assessment were reviewed from variables (1) design with a percentage of 90%, (2) practicality with a percentage of 98%, and (3) advantage with a percentage of 75%. Overall, the average score of media experts was 81%. So, it can be concluded that the level of validation in terms of media aspects of Learning Media for *Pencak Silat* for grade VIII based on the Macromedia Flash 8 application is Agree / Valid / good.

The results of the assessment from material experts are reviewed from variables (1) Content Quality and objectives with a percentage of 84%, (2) Technical Quality with a percentage of 92%, and (3) Evaluation Quality with a percentage of 80%. Overall, the average score of material experts was 86%. So, it can be concluded that the level of validation in terms of material aspects of the Learning Media for *Pencak Silat* for grade VIII based on Macromedia Flash 8 application is agree / valid / good.

The results of the assessment of the practicality test by students are reviewed in terms of variables (1) media design with a percentage of 83%, (2) presentation of material with a percentage of 82%, and (3) advantage with a percentage of 79%. Overall, the average of the practicality test was 81%. So, it can be concluded that the

practical level of the learning media for *Pencak Silat* for grade VIII based on Macromedia Flash 8 application was good / practical.

To find out the effectiveness of the learning media used, it is necessary to have a test. The test is done before (pre-test) and after (post-test) the use of learning media for *Pencak Silat* for grade VIII based on Macromedia Flash 8 applications. The test results are analysed using a statistical formula that is t-test. From the results of the pre-test, the average score of students was 45.82. While in the post-test the average score of students was 75.35. The increase of the average between the pre-test and post-test values was 29.53. There were 16 students out of a total of 20 students who pass the KKM. So, it can be concluded that the learning media of grade VIII for *Pencak Silat* material based on the application of Macromedia Flash 8 is feasible to be used and effective in the learning process *Pencak Silat* for grade VIII.

CONCLUSION

Based on the findings and discussion, it can be concluded that this study produce a product in the form of an Interactive Multimedia CD learning media using the Macromedia Flash 8 application for grade VIII in *Pencak Silat* learning. Based on the results of the material validator's assessment of the media, it was obtained an average of 4.33 in the valid category. The results of media validator assessment obtained an average of 4.09 in the valid category. So, it is known that learning media of *Pencak Silat* for grade VIII based on Macromedia Flash 8 applications is valid and feasible to use in learning. From the trial results of learning media products, it was obtained the average of 4.05 with a percentage of 81% in the good / practical category. Then it can be stated that the learning media of *Pencak Silat* for grade VIII based on the application of Macromedia Flash 8 is practical and it can be used in the learning process of *Pencak Silat* for grade VIII. From the results of the effectiveness test, the results of t_{observe} was 2.12 with t_{table} was 1.73 with $df = N-1$ which is $20 - 1 = 19$

obtained $t_{table} = 1.73$ at the level of significance of $\alpha 0.05$. Thus, it can be seen that $t_{observe} > t_{table}$ was $2.12 > 1.73$. Then, it can be stated that the learning media of *Pencak Silat* for grade VIII based on the application of Macromedia Flash 8 is effectively used in the learning process *Pencak Silat* for grade VIII.

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