



Development of Volleyball Learning Media Models for First Middle School Students

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Abstract

This study aims to develop instructional media products in the form of volleyball learning animation videos that emphasize the cognitive aspects of understanding the concepts of basic skills and basic skills needed in volleyball games, being able to think about solving problems when defending and attacking in volleyball games and being able to score or points in volleyball. The sample used is random sampling. This research was conducted at the SMP Negeri 39 Jakarta. The method used in this research is the research and development method. The stages in this research are: analysis of potential problems, product design, expert validation (initial product validation), product revision, small group testing, large group testing, the final product. The instrument in this study used a questionnaire sheet. The results showed that as many as 83.79% of students liked learning volleyball using animated videos.

How to Cite

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INTRODUCTION

Currently, the world of education is developing in the world of media. The education sector has moved towards a more modern way by utilizing technology, marked by a reduction in the lecture learning method commonly used in previous lessons. About the development of learning technology, media is considered very important to be applied in today's learning with the benefits of this learning innovation.

Learning in schools today requires innovation, especially for learning that prioritizes movement, including volleyball. Many factors cause students to be less interested in volleyball learning where there is no innovation offered by the teacher in delivering the material so that students tend to get bored and have an impact on the learning outcomes obtained by students. Students only get an explanation directly from the teacher who teaches and then students are directed to carry out instructions given by the teacher. This of course makes students less enthusiastic in participating in lessons because the delivery method is still centralized by the teacher.

The media is a means of giving messages to students or linking information from teachers to students. Furthermore, it was conveyed that the media in the form of presentations, including: writing, pictures, sound, animation and video. Thus, the use of media certainly contributes positively to the learning process and learning outcomes, especially student learning outcomes (Sukiyasa, 2012).

About the development of learning technology, the role of the media is very important. Learning media in the form of machines (technology) is seen as an application of science that can be in the form of electronic media or other learning machines that occupy a strategic position in making learning easier and smooth (Miftah, 2013). There are lots of learning media that can support student learning outcomes to be more optimal and of course interesting to be used as a reference, especially to improve volleyball skills.

In this volleyball learning research, the media chose was an animated video containing techniques in volleyball to improve students' understanding. Animated media in learning functions to attract students' attention to learn so that it can provide an understanding (Johari, 2016). The animated video, which is packaged based on powtoon, has its charm in the delivery of material, especially volleyball. The powtoon-

based learning animation video is a cartoon animation video filled with the subject matter and can be used as learning media because of its interesting nature and seems funny and suitable for junior high school students, (Ponza, 2018).

Later, learning innovations like this are expected to contribute to the progress of student learning outcomes and can be used as a reference in the delivery of other material in any field.

METHOD

The method used in this research is the method of research and development (Research and Development). This study aims to develop instructional media products in the form of volleyball learning animation videos. Research and development methods are widely used in the fields of Natural Sciences and Engineering. However, research and development are also commonly used in the social sciences, management, and education. In the field of education, this research is one of the developments of a product. This research and development are focused on producing a volleyball learning animation video product.

This development research classifies the trial subjects into two, namely: Subject Trial Experts, Material Expert.

The material expert in question is a lecturer and education expert whose role is to determine whether this volleyball learning animation video is in accordance with the material and the truth.

Product / Media Expert

Media experts in this study are lecturers and experts who usually handle the making of instructional videos. Validation was carried out using a questionnaire about the volleyball learning animation video design given to the expert.

Trial Subject

The trial subjects in this development research were students at SMP 39 Jakarta. The trial was carried out with students by displaying an animated video of volleyball learning.

In this study conducted questionnaire to obtain the data. A questionnaire or questionnaire is a data collection method that is carried out by giving a set of written statements or questions to respondents to respond to according to user requests (Purnomo, 2016). The questionnaires used in this study were:

Questionnaire for Product Feasibility Assessment of Volleyball Learning Animation Videos. This questionnaire serves as an assessment of the feasibility of the volleyball learning animation video media product based on expert

opinion to find out expert opinions to find out opinions or input on products developed before this volleyball learning animation video media is tried out in learning. The results of the questionnaire are then used as material for evaluating and revising the developed media so that the product is feasible to be tested. The components of the feasibility validation are content feasibility, presentation feasibility, and language feasibility using 4 Likert scales, namely not feasible (1), less feasible (2), feasible (3), and very feasible (4).

Questionnaire for the Response of the Physical Education Subject Teacher to the Animated Volleyball Learning Video. The questionnaire used in this study was a closed This questionnaire was given to teachers in field trials which were used to determine the teacher's response to the android-based motor assessment that was developed. This questionnaire is centered on the ease of use of the assessment application being developed. The questionnaire of this study used 4 Likert scales, namely SS (Strongly Agree), S (Agree), TS (Disagree), and STS (Strongly Disagree).

Collecting data in this research on the development of motor assessment applications in early childhood uses closed and open questionnaires, where the next page is accompanied by a column of suggestions. The questionnaire is given to lecturers and expert lecturer application media and material expert experts.

The instrument is said to be valid if the measuring instrument used can measure the data validly. For this development research to be valid, the researcher added a questionnaire where the material experts and media experts filled in according to the questions provided. Instrument validation for material experts and media experts is carried out through consultation and asking for an assessment of experts who have expertise on the material to be tested.

In this study, using data analysis techniques as follows: Product Feasibility Assessment of Volleyball Learning Animation Videos. The steps for analyzing the assessment questionnaire data on the volleyball learning animation video are as follows: Determine the score of each item with the following details:

Table 1. Score Questionnaire Assessment of the volleyball learning animation video.

Category	Score
Not feasible	1
Not worth it	2
Well worth it	3
Very Worth it	4

Calculating the average overall assessment application eligibility using the formula:

$$X = \frac{\sum P}{N}$$

With:

X = average score

$\sum P$ = total score

N = the number of aspects assessed

Determine the eligibility criteria for the volleyball learning animation video media

Table 2. Eligible criteria for volleyball learning animation

Range	Category
<2.55	Not Feasible
2,50 – 2,99	Not worth it
3 – 3,49	Well worth it
3,50 – 4	Very worth it

RESULTS AND DISCUSSION

In research that has been conducted at SMP Negeri 39 Jakarta using the google form application which contains a questionnaire to see to what extent this volleyball learning animation video product can be applied to help improve the ability to understand the techniques in volleyball. The feasibility study obtained from the distribution of questionnaires, especially for physical education teachers who teaches, animated videos are considered feasible to improve student performance, and the feasibility studies obtained from the distribution of questionnaires targeting students, animated videos are considered more fun. The percentage of obtaining questionnaires from students was 83.79%.

The calculation results obtained at $\alpha = 5\%$ with $DK = 17-1 = 16$ obtained t table = 2.119. Obtained t count = 11,054 \geq t table = 2,119. Because t count \geq t table, the hypothesis (H_a) is accepted. So it can be concluded that there is an increase in learning outcomes after students use the animated video media of volleyball learning in students at SMP Negeri 39 Jakarta and because of this the media is said to be effective. Indicators of the effectiveness of the new teaching method are the speed of student understanding of the lesson is higher, students are more creative, and learning outcomes are increased.

CONCLUSION

Based on the data and description above, it can be concluded that the instructional video animation media on volleyball subjects in the

learning process using new media increased student learning outcomes. The observation process was carried out twice before and after using the instructional animation video media. Based on observations made before using the instructional learning animation video media is less conducive where students feel afraid and easily bored with learning. The stages of developing powtoon-based instructional video media start from first analyzing the potential and problems, collecting data and product material, designing scripts and learning animation video media products, testing, revising, validating, implementing in the school being studied, then evaluating. Based on this research, there can be certainly a positive influence for some parties concerned. Judging from various points of view the problems that occur in the scope of this research room has been revealed the results of research that directly affects the parties in question.

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