Learning Media Development based Animation on Material Jump Far Class 6 Using Adobe Animate

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Abstract: The Study this done with objective for create and produce something product form media learning based animation material jump Far For class VI. Study R&D This use model development Addie which consists from five stage, that is. 1) stage analysis, 2) stage planning, 3) stage development, 4) stage implementation and 5) evaluation. Subject on study This is student class VI elementary school 169 OKU. Technique collection data form interview no structured, questionnaire, test and documentation. Analysis data in study this is analysis validity, practicality and effect potential. this research produces a product valid animation-based learning media to use with mark 89.4% who have evaluated by three experts in category “very valid”. Based on test one-to-one yielded a value of 89.1 % with answers student category “very practical”, and based on the small grub trial the value was obtained “very practical” with value 85.2%. Besides that, media learning based animation which developed own potential effect which showed with average results study student which reach KKM 70 which set school. So that development instructional media-based animation for material jump far school base proven valid and practical as well as have a potential effect.

Keywords: Adobe Animate, Animation, Jump Away

A. Introduction

Knowledge and technology (science and technology) has influence various field life in century 21 era revolution 4.0, And in world education Indonesia need enter element technology in process learning (Ghufron, 2018). Along with this, it is necessary to innovate new learning media related to technology, in order to achieve maximum learning goals. Learning by using media is very useful for clarifying material and increasing student enthusiasm for learning. One of the media that can be utilized is audiovisual media. Audiovisual media is a medium for conveying information that has audio (sound) and visual (image) characteristics. This media has a better ability to convey information because it includes both of these characteristics (Apriansyah, 2020). By using audiovisual media, learning is more effective, students are more interested in student learning (Salsabila et al., 2020). One example is by using interesting animated video media.
Animated videos have great potential in improving learning for elementary school students, because they become easier to understand by using animated video learning media (Achmad et al., 2021). The use of animated videos can be used in all lessons, without exception in physical education, sports and health (PJOK). Especially for variations and combinations of the basic movements of walking, running and jumping in the long jump, special attention is needed because the movements and phases of flight are carried out quickly, so that it becomes an obstacle for students to understand and master this material. Continuity of motion in the long jump is the prefix, pedestal, position while flying in the air and position on landing. In the long jump there are 3 types of styles, namely: long jump squat style, long jump style running in the air and long jump style hanging in the air (Nur, 2019).

In PJOK learning in SD we need to adjust the characteristics of SD students who are in the concrete operational stage, meaning that someone at this stage needs something concrete to understand something. Each student has a different character, including in the form of preferences and learning styles. However, teachers often do not make diverse student learning styles a major consideration in selecting and using instructional media (Dewantara et al., 2020).

The results of a preliminary study at SDN 169 OKU found problems from the results of interviews with PJOK teachers and class VI students showing that teaching and learning activities, especially when the material in class still uses simple learning media in the form of blackboards and printed books, so it is considered less interesting and varied in the learning process. In line with this, teachers need learning media that utilize technology that can facilitate students when learning (Kartikasari & Rahmawati, 2018). One of them is yidio animation which involves the senses of sight and hearing from students, so that the material delivered through animated videos can be received optimally (Maryanti & Kurniawan, 2018).

Based on the results of this study, the researcher developed animation-based learning media on long jump material by adjusting the needs of grade 6 students. In addition, the reason researchers developed animated video-based media was because animated videos could be well designed in making, easy to use in learning, and easy to use. obtained.

Animation-based learning media is made using the Adobe Animate application which is an application that is widely used by animator designers, because it has superior capabilities in displaying multimedia, a combination of text, images, animation, and sound (Yunita, 2019). This animated video media can be shared via smartphones and computers. Making it easier for students to access offline learning or learning at school. By developing animation-based learning media on long jump material, students are expected to be able to build knowledge and enthusiasm in PJOK learning.
activities. So, researchers need to conduct research entitled “Learning Media Development based Animation on Material Jump Far Class 6 Using Adobe Animate”.

B. Methods

This type of research will be used is research and development research it means research and development. Products developed in this research is an animation-based learning media material for class VI elementary school long jump. The model in the R&D method that researchers use the development model Addie which consists of five stages, namely the analysis stage, design stage, development stage, implementation and evaluation stage.

This research was conducted at SDN 169 OKU located on Batumarta XI axis road, Marga Bakti, Kec. Ray of Observation, Kab. Ogan Komering Ulu. The object of research is students of class VI SDNegeri 169 OKU. Data collection techniques on this research as follows: interviews, questionnaires tests and documentation. In this research researcher. Researchers used a questionnaire in the form of Likert scale technique. Data analysis techniques used is the validity analysis technique Get comments or suggestions from experts or experts can be made to revise product so that it is feasible to be tested, analysis techniques practicality, data obtained through a questionnaire to get a perceptual opinion. Analysis technique potential effect, to know the potential effect of the product being developed can be done by way of students doing trials.

C. Results and Discussion

Media Validation Results

The purpose of product validation by expert media validators is to assess the appearance of the media being developed. Media validation in this product was carried out by Dr. Muhsana El Cintami Lanos, M.Pd after that the results of the media validator’s assessment were obtained, namely 89.3% in the “Very Valid” category. The results of the validator’s assessment suggest paying attention to the color of the character and the long jump field. So that the color of the character does not collide with the color of the long jump field. So that the developed product can be used properly, the researcher makes improvements according to the suggestions given by the validator. Further revisions according to suggestions from media experts are presented in the following table.
Objective validation product Which done by validator media is for evaluate appearance media Which developed. Media validation in this product done by Mrs. Hikmah Lestari, M.Pd. After the data were analyzed the product assessment data obtained a value of 87.5% in the category “Very Valid”. Evaluation product with the material expert validator obtaining suggestions and comments to improve the shape of the long jump character’s leg and hand movements so that they are not too wide when running. Therefore, researchers made improvements according to the validator’s suggestions. And revisions were made based on suggestions from material experts listed in the table below.

Language Validation Results

Objective validation product which done by validator media is for evaluate appearance media which developed. The validation of the media in this product was assessed by Mr. Semaun Naidu, M.Pd. after the results of the assessment were obtained media validator can is known that analysis data obtained is 91.4% with the category “Very valid”. As for the results of the expert validator’s assessment who gave advice to add explanation neighbor style moment position floating on the media. In order for the developed product to be used properly, the researcher revised it according to the suggestions given by the validator. The suggestions and improvements to this animation-based learning media can be seen in table 3 below.
From the results of the assessment analysis from the validator expert, it will be processed again so that it gets the overall value of the percentage of products that are developed below is the result of the whole of the percentages:

<table>
<thead>
<tr>
<th>No</th>
<th>Validator</th>
<th>Score (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Muhsana El Cintami Lanos, M.Pd</td>
<td>89,3</td>
</tr>
<tr>
<td>2</td>
<td>Lestari Wisdom, M.Pd</td>
<td>87,5</td>
</tr>
<tr>
<td>3</td>
<td>Semaun Naidu, M.Pd</td>
<td>91,4</td>
</tr>
</tbody>
</table>

Based on table 4, the overall results of the validation assessment of animation-based learning media in elementary schools from media experts obtained a score with an average value of 89.3% in the “very valid” criteria, the validation results of material experts obtained a score of 87.5 % with the criteria “very valid” and the validation results of language experts obtained a score of 91.4% with the criteria of “very valid”. The overall results of the product validation obtained an average value of 89.4%, so the product was declared very feasible so that it met the “very valid” criteria.

After the experts stated that this animation-based learning media was valid and feasible, then the researchers carried out the one-to-one and small group stages for class VI students to see the practicality of the animated media that had been developed.

**Product Trial Results One to one**

At this stage, researchers tested animation learning media products on three students in class VI. Classes consisting of students with high, medium and low ability to test
the practicality of the media being developed. Students were asked to fill out a questionnaire and provide comments and suggestions, which were carried out through a questionnaire on the practicality of student learning media. Students’ questionnaire assessment scores on animation-based learning media in the one-to-one stage on the results of student questionnaire assessment calculations gave responses and it was concluded that the average questionnaire assessment with student responses in the one-to-one stage students named OA got an average 90%, KB got an average score of 89.1%, and SA got an average score of 88.2% included in the very practical category. The comments and suggestions given by students can be seen in the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Student</th>
<th>Suggestions and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OA</td>
<td>Cool learning media and the material can be understood</td>
</tr>
<tr>
<td>2</td>
<td>KB</td>
<td>Interesting learning media</td>
</tr>
<tr>
<td>3</td>
<td>SA</td>
<td>The medium is good and interesting</td>
</tr>
</tbody>
</table>

Based on comments or suggestions from third the six grade students, can concluded that animation-based learning media has tested with Good in class without revision. Media learning based animation This Then tested in the small group stage.

**Small Group Trial Results**

At this stage, namely the small group stage, the researcher again gave practicality tests to seven students, where seven grade VI students represented two students with high abilities, three students with moderate abilities, and two students with low abilities. In this small group phase, the researcher provides information about how to use the animation-based learning media. After finishing watching the animated video, students were asked to fill out a questionnaire provided by the researcher and provide comments and suggestions. Student questionnaire assessment scores on animation-based learning media in the small group stage. After calculating the results of the student response questionnaire assessment, it can be concluded that the average student response questionnaire assessment named AZ gets an average of 86.7%, AA gets an average score of 84%, FA gets average score of 86.7%, IF gets an average score of 86.7%, IN gets an average score of 82%, KA gets an average score of 88.9%, and KD gets an average score of 82%. The comments and suggestions given by students can be seen in the following table.
Table 6. Suggestions and Comments Students on Stage Small Group

<table>
<thead>
<tr>
<th>No</th>
<th>Student</th>
<th>Suggestions and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AZ</td>
<td>The medium is good</td>
</tr>
<tr>
<td>2</td>
<td>AA</td>
<td>The medium is good and interesting</td>
</tr>
<tr>
<td>3</td>
<td>FA</td>
<td>I love to see the media</td>
</tr>
<tr>
<td>4</td>
<td>IF</td>
<td>The media makes me interested in learning.</td>
</tr>
<tr>
<td>5</td>
<td>IN</td>
<td>The material is easy to understand</td>
</tr>
<tr>
<td>6</td>
<td>KA</td>
<td>Pictures and animations on the media are good</td>
</tr>
<tr>
<td>7</td>
<td>KD</td>
<td>The medium is good, the material is easy to understand.</td>
</tr>
</tbody>
</table>

Based on table 6 it can be seen that the students gave good responses and comments on animation-based learning media. In the next stage, the product will be tested on a field test to obtain and determine the value of the potential effect of using the animation-based learning media.

Potential Effects

At this stage of the field test the students who were the subject of the research were class VI at SDN 169 OKU. The final assessment stage is the field test evaluation stage, at this stage it is about getting the potential effect value obtained from the use of this animated learning media. This potential value can be seen from the results of student learning after using animated media. The questions totaled 15 multiple choice questions which were worked on by 15 grade VI students at SDN 169 OKU. This test does not involve students who have taken one-to-one and small group trials. The results of the recapitulation of field trial values (field tests) can be seen in table 7 below:

Table 7. Student Learning Outcomes

<table>
<thead>
<tr>
<th>No</th>
<th>Student</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AFI</td>
<td>80</td>
</tr>
<tr>
<td>2</td>
<td>AMP</td>
<td>90</td>
</tr>
<tr>
<td>3</td>
<td>FR</td>
<td>90</td>
</tr>
<tr>
<td>4</td>
<td>IF</td>
<td>80</td>
</tr>
<tr>
<td>5</td>
<td>IS</td>
<td>80</td>
</tr>
<tr>
<td>6</td>
<td>MIF</td>
<td>70</td>
</tr>
<tr>
<td>7</td>
<td>KF</td>
<td>90</td>
</tr>
<tr>
<td>8</td>
<td>KN</td>
<td>90</td>
</tr>
<tr>
<td>9</td>
<td>MY</td>
<td>80</td>
</tr>
<tr>
<td>10</td>
<td>NA</td>
<td>80</td>
</tr>
<tr>
<td>11</td>
<td>N</td>
<td>60</td>
</tr>
<tr>
<td>12</td>
<td>RD</td>
<td>80</td>
</tr>
<tr>
<td>13</td>
<td>RF</td>
<td>90</td>
</tr>
<tr>
<td>14</td>
<td>SA</td>
<td>90</td>
</tr>
<tr>
<td>15</td>
<td>SB</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Amount</td>
<td>1230</td>
</tr>
</tbody>
</table>
Based on the calculation results in table 7, it can be seen that the average test results in class VI at SDN 169 OKU were 14 students who scored above the KKM 70 that had been set by the school, and 1 student who scored below KKM 70. Then after conducting the trial, the researcher obtained a student learning score of 82, from the results of the trial it was confirmed that it had a potential effect, it was seen that out of the 15 students tested there were 14 students who received a complete learning achievement score and achieved a score above the KKM.

ADDIE development model consists of five stages, namely analyze, design, development, implementation, and evaluation (Kurnia et al., 2019). The first stage is needs analysis by interviewing PJOK Class VI subject teachers in order to be able to find out and obtain information about the problems that occur in the PJOK learning process, especially in long jump material, after knowing the problems in the learning process then solutions to these problems are obtained by developing learning media new ones and can later be used in the learning process at SDN 169 OKU. then in the design stage the researcher did the preparation of GBIM (Media Content Outline), Flowchart, and Storyboard.

Media is a means of transferring or conveying messages (Hasan, 2021). This is in line with the opinion (Oka, 2021) stating that learning media is a means to provide incentives for learning so that the learning process occurs. Therefore, media as tool learning used as tool for accept or send message, and media Also can stimulate sense vision, touch and hearing. Media Also is a learning tool form media electronic and media print form device hard and device soft, tool, person like Teacher and incident which can change attitude, Skills, and knowledge Which support process learning. The benefits of learning media, first, make teaching more attractive to students so that it can foster learning motivation. Second, teaching materials will be clearer in meaning, so that students can better understand them, and enable students to master teaching objectives well. Third, varied learning methods, not merely verbal communication through the teacher’s oral words, students are not bored, and the teacher is not exhausted. Fourth, students do more learning activities, because they don’t only listen to explanations from the teacher, but also other activities carried out such as observing, doing, demonstrating and others (Nurrita, 2018).

The learning media used are animated videos, Video animation is a process of recording and playing back a series of static images to get an illusion of Fernandes’
movement (Buchari et al., 2015). Not only that, animation media is the movement of the display of an object or image so that it can change its position within a certain timeline, creating the illusion of moving images. Basically, animation is an object that makes it look more dynamic (Maryanti & Kurniawan, 2018). Furthermore, animation is formed from a collection of moving images in the form of objects with certain effects so that they look realistic and attractive.

Mayer in (Mashuri & Budiyono, 2020). Animated videos can be shared via smartphones and computers and other media to make it easier for teachers and students in the teaching and learning process. Animation-based learning media in its implementation process is an example of learning innovation that can be applied by subject teachers by following current technological advances. Adobe Animate is a computer software which is a superior product of Adobe Systems. Adobe Animate is a program specifically designed to create very attractive animations and bitmaps for the purposes of developing interactive and dynamic websites. Animate is designed to create reliable and lightweight 2D animations, so it is widely used to create animation effects for websites, games and more. The advantage that Adobe Animate has is being able to give a little programming code, either running alone to manage the animation in it or communicating with other programs such as HTML, PHP, and databases with an XML approach, can collaborate with the web, because it has the advantage of being small in size. the output files. Prior to launch, the previous version of this software was called Adobe Flash.

Adobe Animate 2021 (21.0) released in October 2020, features quick publish options (video canvas format, animated GIF and HTML5), improved assets panel (default and custom tabs), improved timeline and symbols (customizable timeline tools, break symbol and convert layer to symbol options via context menu, rewind and loop support for graphic symbols and new tween copy-paste options), advanced rigging (Beta), Windows Ink support, bone tool improvements (leaf knot limitations and split armature/join Spans), latest Flash Player (version 32), AIR SDK (version 32). The development of animation-based learning media has an element of validity and can be used as a learning resource; therefore, it requires suggestions and input from experts according to their respective fields. The results of the validity data were obtained through expert review, in which case the researcher asked for help from experts in the fields of media, materials, and language to provide suggestions and input on the products that the researchers had developed before the learning media was tested on students.

**Animation Validity**

At the validation stage, giving a questionnaire to experts (media, language, and material experts). The researcher carried out the validation aiming to determine the
quality of the media, the results of the validation of animation-based learning media by media experts got a total score of 67 with an average of 89.3%, language experts got a total of 32 with an average of 91.4% included in category “Very Valid”, material experts get a total of 46 with an average of 92% and are included in the category “Very Valid”. This is based on the percentage score between 81% -100%, it can be said to be “Very Valid”. This is in line with research (Mashuri & Budiyono, 2020) and research conducted (Ponza et al., 2018) with feasibility/ valid learning media animated video is very good.

Practicality

After the instructional media was declared feasible or valid by the experts, then the researchers carried out the one-to-one stage and small group tests on class VI students at SDN 169 OKU so they could see the practicality of the animated media that had been developed. In the one-to-one stage the researcher did it with 3 students and the small group stage was carried out with 7 students at different levels of intelligence, from the highest, medium and low levels of intelligence. From the results of the one-to-one trial, the overall results were obtained with an average value of 89.1% and in the small group trial, the results obtained were an average value or score of 85.2%, which can be said to be very practical because it fits the category or criteria an assessment of the results of a score of 81% -100% can be categorized as very practical media (Lelilita, et al., 2020). This is in line with research conducted by (Sulistianingsih & Mukminan, 2019), the practical results of using one-to-one with an average value of 66.67% in the very good/practical category. Furthermore, (Suryani et al., 2022) test the small group stage with an average score of 70.71% in the practical category.

Effect potential

The field test field trial stage functions to be able to find out the potential effects of using animation-based learning media. Researchers give a certain time for students to work on the tests that have been provided, after the tests are done, they get an average potential effect value of 82%. Product stated has a potential effect if on student learning outcomes after using animation-based learning media it reaches the KKM score (70) determined by the school. This field trial was with 15 fifth grade students at SDN 169 OKU and did not involve students who had taken one-to-one and small group trials.

To find out the potential effect, the researcher gave ten multiple choice test questions to students. Of the 15 students who took the test, there were fourteen students who scored above the KKM and 1 student who scored below the KKM. Therefore, it can be concluded that the product developed by the researcher has a potential effect because almost the fifteen students can solve the problem correctly. This is in line with the
results of research (Pranata et al., 2021), learning outcomes with a percentage of 94.2%, therefore the research that is being developed has a potential effect. Furthermore, the results of a similar study (Marfuah et al., 2016) obtained the results of the potential effect trial to obtain 83% student learning outcomes in the high category and had a potential effect.

Based on the explanation above, it can be concluded that the product that has been developed and tested on students of SDN 169 OKU can be said to be valid because the results obtained from giving validation sheets to media experts, material experts, and linguists obtained an average result of 89.4%. Then animation-based learning media can be said to be practical because it has been tested with one-to-one students with 3 students getting an average score of 89.1% and small groups with 7 people getting an average result of 85.2%. Meanwhile, it can be said that it is a potential effect because it is seen from the results of the field tests given to 15 students getting an average score of 82%. Products that have gone through the validation process of media experts, material, language, and potential effects can be said to be very good and suitable for use in schools to add long jump material learning media to the PJOK learning process.

D. Conclusion

Based on results study and discussion it can be concluded that: (1) The results of the development of media-based learning class VI animation in elementary schools is declared valid, by obtaining an average score with a score of 89.4% through a questionnaire from the validators. (2) The results of the development of media-based learning class VI animation in elementary schools is stated to be practical obtained from the results of calculations through a student response questionnaire with the average value at the one-to-one stage is 89.1% and 85.2% at the test stage small group. (3) The development of animation-based learning media for class VI in elementary schools obtained an average learning result of 82, the learning achievement value was greater than the KKM value set by the school, so that animation-based learning media products for class VI long jump material in elementary schools had a potential effect. So it can be concluded that the development of animation-based learning media for grade VI long jump materials in elementary schools can be used in the PJOK learning process.

Based on the results of the research that has been done, the researcher provides the following input: (1) For schools, hopefully can facilitate teachers to be able to use various kinds of learning media as a means of improving the quality of teaching and learning. (2) For Teacher, expected media learning that has developed this so you can used in upgrading process learning, so capable make Power pull and raise understanding students during the learning process. (3) For students, it is hoped that learning media products based on animation for class VI long jump material in
elementary schools can be used as supporting media for the PJOK learning process. (4) For further research, it is hoped that research on animation-based learning media for class VI long jump materials in elementary schools can use other PJOK materials as well as conduct research and can be tried out in other schools.

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References


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