Development of 3D Dynamite Box Video Media for Global Perspective Courses based on Case Method in Pgsd Study Program

Husna Parluhutan Tambunan[1], Yusra Nasution[2], Rahmilawati Ritonga[3], Dwi Yulia Annisa[4], Cepty Yuria Pratama[5]

{husnaparluhutan@unimed.ac.id}

Universitas Negeri Medan, Jl. Willem Iskandar Psr V Medan Estate

Abstract. This study aims to determine the development, feasibility and practicality of 3-dimensional learning video media for the case method-based global perspective course in the PGSD study program. This type of research is research and development using the ADDIE model. The instruments used are material expert validation sheets, media experts and student response questionnaires. The results of research related to feasibility show that at this stage the researcher evaluates the media that has been developed based on the results of the media feasibility assessment by material experts, media experts, and lecturers. 90% (material), 95.38% (media), 91.64% (practical) . Based on the results of the validation of Animaker-based animation learning media, it is in the "Very Appropriate" category, so it can be concluded that Animaker-based animation learning media is very feasible to use.

Keywords: Development, Learning Video Media 3D animation.

1. Introduction

The curriculum is the most important component in educational institutions. All learningactivities are regulated in the applicable curriculum. Curriculum as a guideline for running alearning system to achieve educational goals. In Law no. 20 of 2003 concerning the curriculumstates that "the curriculum is a set of plans and arrangements regarding the objectives, content, andlearning materials as well as the methods used to guide the implementation of learning activitiesto achieve certain educational goals". Changes in the Indonesian education curriculum havechanged 11 times.In the world of education system the use of learning media is very necessary forthe continuity of the learning process, because learning media are able to give messages, stimulatestudent interest and attract students' attention in achieving learning objectives, so learning mediaare needed to support the learning process in the classroom. One example of learning media that is most often used is technology-based learning media.

The use of media in the world of technology in education is still low. The lack of use oflearning media can be seen from how learning takes place in the classroom. Many lecturers carryout conventional teaching processes due to the inability to utilize and develop technology-based learning tools. Whereas in the digital era the development of Science and Technology (IPTEK) in all fields is growing very rapidly, including the fields of informatics, transportation,

telecommunications and so on so that learning can be done digitally to stimulate student interest in learning by using technology so that learning activities can can be done anywhere and anytime. In the learning process there are several factors that result in students not understanding the material being taught, including (1). Lecturers are still not able to develop digital-based learning media due to lecture activities. Lecturers only use books and use the lecture method in lecture activities, which results in the use of books/modules being the main guide in the lecture process. So it is very necessary to develop a technology-based media in learning to be able to improve student understandingWith technology-based learning media students can easily understand the material being taught. Global perspective learning based on the case method is expected to be able to make and provide students to study themselves and provide opinions, as well as views on global problems that occur so that later they can be further developed in applying them in everyday life. So that students can adapt to phenomena and changes in the surrounding environment. In other words, this case-based perspective learning method aims to study oneself and provide opinions, as well as views on material and global problems.

One alternative for selecting technology-based media that can be used to support the learning process is the use of 3 (three) dimensional learning animation video learning media. The use of 3 (three) dimensional animation media in the learning process has a function as a teaching aid used in conveying and explaining a subject matter. Learning video media is one of the references given to students to understand the subject matter in the classroom.

Based on the results of interviews conducted by researchers with Ms. Risma Sitohang S.Pd., M.Pd as a Lecturer in the Global Perspective course on Wednesday, March 30, 2022, information was obtained that in the lecture activities carried out already using technology-based devices, it's just that The technology referred to in this case is infocus/LCD instead of using teaching materials and creating digital-based teaching materials. so, the use of learning media using pictures is not very varied. 3 (three) dimensional learning animation video media has many advantages over other media, including; easy to use and low cost. 3 (three) dimensional learning animation videos will make it easier for teachers to explain a material and please students so that they are not fixated on the lecture method during the learning process.

2 Method

The type of research used in this research is Research and Development (R&D). According to Sugiyono (2011: 297), research and development methods are defined as a research method used to produce certain products and test the effectiveness of these products. According to Sujadi (in Punaji Setyosari. 2010: 194) research and development or Research and Development (R&D) is a process or steps to develop a new product, or improve an existing product, which can be accounted for. The use of animation media 3 (three) animations in global perspective courses can be one of the alternative learning media for lecturers in delivering learning.

The procedure in this study uses the ADDIE development model, which is a development model that has five stages which include:
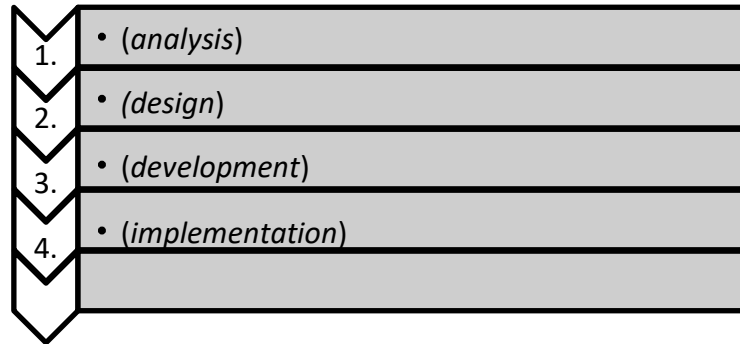
Fig 1. ADDIE stage

3 Results and Discussion

The media that has been developed in this research are learning media based on 3-dimensional animation of the global perspective subject based on the case method, this media is prepared based on the needs of lecturers and students of the Faculty of Education. The results of the research discussed are (1) the feasibility of learning media, (2) the practicality of learning media, and (3) the effectiveness of learning media that have been developed by researchers.

3.1 Eligibility of Learning Media

The analysis of the feasibility of animation-based learning media is seen from the assessment given by the validators. The material expert validator in this study is Ayu Febriani S.Pd., M.Hum as a FIS Lecturer. Then, the validator of media experts in this study is Mrs. Reni Rahmadani S.Kom., M.Kom as an ICT lecturer at Medan State University. The results of the validator on the feasibility of learning media show that the learning media that have been made are classified as very feasible. This can be seen from the scores given by material experts on the aspects of the suitability of the media with the material, aspects of material presentation and language aspects, overall obtaining an average of 90% which is categorized as "Very decent". The results of the validation of media experts on the feasibility of learning media can be seen from the scores given to the aspects of appearance and aspects of use, which overall obtained an average of 95.38% which was categorized as "Very feasible" to be used for teaching and learning activities.

The difference can be seen from the content, the arrangement of the presentation of the material and the software used to develop the media. The content created is adjusted to the indicators of learning achievement using animation-based learning media. The presentation of material in this media is made interesting with interesting moving animations so that students are interested in learning to use the learning media that have been made. One of the main software (software) used in this research is using "Illustrator" this software is used for making initial concepts called assets. Then use this software to combine all the assets at the initial concept stage to be converted into animation. Then the "After Effect" software researchers use to create animations in the form of assets combined into animations that can be moved with this software and make 3D animations. **3.2 Practicality of**

Learning Media

The practicality of learning media is measured through the results of the assessment of the responses of the lecturers who are in charge of the Global Perspective course. The lecturer is Risma Stohang S.Pd., M.Pd. The results of the validation by the homeroom teacher on aspects of material presentation, learning media, learning and language, overall obtained an average of 96% which was included in the very practical category. From these data it can be said that the learning media is practical.

There are differences that distinguish between 3D animation-based learning media developed with previous research. The difference between this study and the relevant research conducted by Prio Dwi Prayoga is that the research was only carried out at the feasibility and effectiveness test stages. Meanwhile, in this study, the aim was to determine the feasibility test, practicality test and test the effectiveness of the developed media.

3.3 Effectiveness of Learning Media

The results of the effectiveness of learning media are measured using tests. The tests carried out were the initial test (pre-test) and the final test (post-test). The test used is 25 items. The specified KKM is 70. The average score obtained by students during the pre-test is 65%. After the post-test was carried out, the students obtained an average of 90%. From these results, it can be concluded that there was an increase in student learning outcomes from pre-test to post-test by 25%. This proves that the learning media developed by researchers has a good impact on student learning outcomes. Based on the results of the data above, it can be concluded that the learning media based on 3D Animation in the global perspective course is "Very effective" to be used as a learning medium for students of the Faculty of Education.

3.4 Discussion

Development of animation learning media based on Animaker. The research, entitled the development of Animaker-based learning media in the Global Perspective course, aims to produce Animaker-based learning media in social studies subjects. To achieve this goal, Animaker-based learning media was developed using the ADDIE model which consists of several stages, namely analysis, design, development, implementation, and evaluation. In the analysis stage, at this stage the researcher obtains information from the PGSD Study Program through direct observation and interviews with lecturers regarding the learning media used in the Global Perspective course. it turns out that the learning has not used media assistance in the learning process but only uses books/modules and the lecture method. Based on the analysis above, the researchers are interested in developing animated learning media based on Animaker with an attractive display of images, videos, animations, and sounds so that students will be more interested in learning.

In the design stage, at this stage the researcher designs the initial media design by determining the concept of media content and material to be discussed. Then determine the learning flow and plan the content of the presentation of the material. The draft that has been made will be consulted with the Global Perspective Lecturer in which the material contains case methods which will be used as material for students later. At the media design stage, it only requires one main application to develop animation learning media, namely Animaker, and is supported by several animal images

obtained from Google image.

In the design stage, at this stage the researcher designs the initial media design by determining the concept of media content and material to be discussed. Then determine the learning flow and planthe content of the presentation of the material. The draft that has been made will be consulted withthe supporting lecturer. At the media design stage, it only requires one main application to develop animation learning media, namely Animaker, and is supported by several cultural images obtained from Google image.

After developing the media, the researchers then validated the media to the experts to obtain criticism and suggestions from the validator. Validation by experts was carried out with the aim of knowing the quality of the product and knowing the feasibility of animation media to be used in the school. The animation media validation process is carried out by three validators. The first validator is a material expert who evaluates the material aspects contained in the media, then the second validator is a media expert who assesses media aspects such as the quality of the display and media programs, and the third validator is a lecturer in global perspective courses who conducts an assessment of all aspects, starting from the material, the quality of the display and the overall media program.

The validation results obtained from the validator were then analyzed, the validation carried out by material experts obtained an average result of 90% with the "Very Eligible" category, also accompanied by some notes or suggestions as guidelines for media revision. Furthermore, the validation carried out by media experts obtained an average result of 95.38% with the "Very Eligible" category, also accompanied by several notes or suggestions as guidelines for media revision. The last validation conducted by the fifth grade teacher regarding all aspects obtained an average result of 91.64% in the "Very Eligible" category, accompanied by some notes and suggestions from the Lecturer. Based on the results of the validation carried out by the validator, it can be concluded that the media validity assessment can be said to be valid so that it is feasible to use.

The last stage in this research is evaluation. Evaluation is the last stage of the ADDIE model development step. Evaluation can be carried out at each stage of development, and an overall evaluation carried out at the end of development activities. This stage evaluates the results of the media feasibility assessment by material experts, media experts, and classroom teachers. There are two types of evaluation carried out, namely formative evaluation and summative evaluation. Formative evaluation is an evaluation carried out in the development process, because the goal is for revision needs, while summative evaluation is an evaluation carried out at the last stage and aims to assess the feasibility of the media developed at the implementation stage. At this stage the researcher evaluates the media that has been developed based on the results of the media feasibility assessment by material experts, media experts, and classroom teachers. Judging from the validators of material experts, media experts, and classroom teachers, the average assessment was 90%, 95.38%, 91.64%. Based on the validation results of Animaker-based animation learning media, it is in the "Very Appropriate" category, so it can be concluded that Animaker-based animation learning media is feasible to use.

4 Conclusion

Based on the results of the research conducted, it can be concluded as follows: The development of 3-dimensional animation learning media uses 5 stages of research procedures, namely the analysis stage, the design stage, the development stage, the implementation stage and the evaluation stage. The assessment of the feasibility level that researchers have obtained from media experts and material experts about 3D animation learning media is 90% (Very Eligible) for the results of the media expert assessment and 95.38% (Very Eligible) for the results of the material expert assessment. Assessment of the results of the lecturer's response got a percentage of 91.64% which was categorized as "very practical".

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