DEVELOPMENT OF LEARNING MEDIA BASED ON ARTICULATE STORYLINE

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Abstract: Utilization of technology in education will produce good quality learning, up to date, make critical thinking, have conceptual thinking and easy to access various learning resources. Together with technology, the teacher must realize a learning assisted learning media, so that students' interest in learning increases. Articulate storyline application is an interactive multimedia application that can be used by teachers or students. Based on observations found that teachers use media objects for learning in class, especially in force material, then based on the results of interviews with teachers, teachers more often use learning media types of objects, visuals and silently projected. The purpose of this study is to validate the articulate storyline as a learning medium on force material. The steps of this research development include initial research and information gathering, planning, developing initial product formats, initial trials and product revisions. Data collected through observation, interviews and questionnaires. The results of the validation of the material experts stated that media is valid with an average value of 79.65%. Furthermore, the results of the validation of the media experts stated that media is valid with an average value of 86.16%. In tested valid media products with an average of 81.93%. From the results of these data the researchers concluded that the articulate storyline-based media are valid, and suitable for use as learning media.

Keywords: learning media; articulate storyline; force material

1. INTRODUCTION

Media is a container or place containing the material to be conveyed and the objectives to be achieved is the learning process (Susilana & Riyana, 2018). Media can be said as a tool to convey learning. Without using media, learning will be less effective because there are no supporting or examples shown. So that students will learn abstractly and it is difficult to understand learning. In line with Sumiharsono & Hasanah (2018) in the educational process, objects have a high intensity to perceive material, whereas if delivery is only verbal it will be very less effective. Learning media is something related to the use of real objects and visual images used for learning and conveyed to students, from these media teachers can provide a stimulus so that learning will be more effective (Jalinus & Ambiyar, 2016). The function of a medium is so that students can see objects clearly and learning becomes easy to understand (Lastrijanah, Prasetyo, & Mawardini, 2017).

According to Satrianawati (2018), there are four types of learning media, namely visual, audio, audio-visual and multimedia media. In accordance with the development of current technology, multimedia is an option for making learning media, because it is interactive and

attracts students' attention. In addition, multimedia is easy to create and use by users. Interactive multimedia is a type of application-based media where users can operate all tools according to their needs (Kurniawati & Nita, 2018). Learning using multimedia is expected that students can learn actively and be able to build their knowledge independently (Qosyim & Priyonggo, 2017).

Articulate storyline software is an application to create technology-based learning media (Darnawati, et al., 2019). In addition, articulate storylines have a function, namely as a presentation medium (Pratama, 2019). The articulate storyline application is an interactive multimedia application that can be used by teachers or students. This application is quite easy to make because the display is almost similar to PowerPoint. Articulate storyline can be published according to user wishes. This application can be accessed via the internet because it is supported in HTML5 format and can be accessed either on a computer or smartphone. This study aims to validate the articulate storyline as a medium of learning in the force material of fourth grade students.

2. METHODS

The method in this research is Research & Development (R&D) and uses the Borg & Gall model development procedure. Setyosari (2016) states that the Borg & Gall model has 10 stages in conducting development research, namely preliminary research and information, planning, initial product development format, initial testing, product revision, field testing, product revision end and dissemination. However, researchers only use up to the fifth stage, namely product revision due to the limited time the researcher has.

The trial design is carried out in two stages, namely individual trials and limited trials. The subjects in an individual trial are one material expert and one media expert. While the subjects in the limited trial were two teachers.

Technical data in research using interviews, observation and questionnaires. Researchers used a questionnaire with a Likert scale 1-4 in the form of a checklist. The data instrument used the material expert validation sheet, the media expert validation and the teacher's product validation. Researchers used descriptive statistical data. Statistics are used to analyze data by describing the collected data that has been collected without making up (Sugiyono, 2015).

3. RESULTS AND DISCUSSION

3.1. Results

Based on the data obtained by researchers, the results of this development research are as follows.

Table 1 Results of the material expert validation			
Aspect	Percentage (%)	Information	
Suitability of the material	71.8	Good	
Suitability of language	87.5	Very good	
Average	79.65	Good	

Table 2 Results of media validation

Aspect	Percentage (%)	Information
Text	87.5	Very good
Graphics	85	Very good
Audio	83.3	Very good
Video	93.75	Very good
Animation	81.25	Very good
Average	86.16	Very good

Table 3 Results of the product assessment by the teacher

Aspect	Percentage (%)	Information
Display	83.3	Very good
Content	75	Good
Writing	87.5	Very good
Average	81.93	Very good

3.2. Discussion

Researchers used the five stages of the Borg & Gall model in development research. The five stages are as follows.

Initial Research and Information Gathering Stage. This stage is the stage of the researcher to collect initial information. Information gathering is done by means of observation and interviews. Observations were made in grade IV and interviews with grade IV teachers. Based on the results of observations on Tuesday, February 25, 2020, it can be concluded that when the teacher explains the material, especially the teacher's style material using object type media. Based on the results of interviews with grade IV teachers on Monday, March 16, 2020, it can be concluded that for the use of media teachers more often use object, visual, audio-visual and infocus media. There is only a limited number of focussing available in schools, only two. For the use of instructional media in force material, teachers have never used multimedia types of media. This requires the development of multimedia-type media in the form of an articulate storyline application to support learning, especially in force material. SDN Bojong Rangkas 02 has implemented the 2013 Curriculum, so that learning is carried out thematically. However, the material that the researcher will develop is force material in science subjects.

Planning. This stage is the stage of the researcher in determining the specific goals to be achieved. Based on the objective, the researcher wanted to find out whether the articulate storyline application product was suitable for use as a class IV learning medium in style material. In order to find out these results, the researchers conducted a series of trials, namely validation of material experts and media experts and validation of products by teachers/practitioners.

Initial Product Format Development. This stage is the process of making learning media. The process carried out is downloading the material, downloading images and videos, downloading the background, making designs, compiling the material and entering the material into the articulate storyline software. After making a product design and becoming an application, then the next step is validating it. Product validation is carried out to determine the product is feasible. Validation is carried out by one material expert and one media expert. The following is validation data from material experts and media experts:

Material Expert Validation Data. The material expert in this study was Mrs. Resti Yektyastuti, M.Pd. The material expert has a role to assess the material from the suitability aspect of the material and the aspect of language suitability. From Table 1, the results of the Material Expert Validation, it can be interpreted that the suitability aspect of the material in this media has a good assessment with a percentage of 71.8% which indicates that the material is appropriate. In the aspect of language suitability, it has a percentage of 87.5% with very good information which indicates that the language used is appropriate and communicative. Based on this assessment, it can be concluded that the material in this learning media has an assessment of 79.65% with a good category and is suitable for use in the learning process on style material. However, the material developed was declared valid with several improvements, namely in basic competencies, indicators, learning videos and learning quizzes.

Media Expert Validation Data. The media expert in this study was Dr. Widyasari, M.Pd. Media experts have the role of evaluating media from the aspects of text, graphics, audio, video and animation. From Table 2, the results of the Media Expert Validation, it can be interpreted that the text aspect of this media has a very good assessment with a percentage of 87.5% which indicates that the clarity of the text is appropriate. In the graphic aspect, it has a percentage of 85% with very good information which shows that the illustration and layout are appropriate. Furthermore, in the audio aspect, it has a percentage of 83.3% with very good information which indicates that the audio clarity and the use of background sound are appropriate. In the video aspect, it has a very good rating with a percentage of 93.75%, which indicates that the video used and the video quality are appropriate. Then the last aspect is the animation aspect which has a percentage of 81.25% with very good information which shows that the image selection, use of motion images and navigation buttons are appropriate. Based on this assessment, it can be concluded that the media developed is declared valid with several improvements, namely the need to add navigation buttons, fonts, learning videos, quiz matching the images and giving an average final rating on the quiz. The results of the assessment obtained from the products that have been developed have an average of 86.16% with a very good category which indicates that it is very suitable for use as a learning medium.

Initial Trial. This stage is an initial trial or limited trial. Limited trial is the stage of product assessment by teachers/practitioners. The limited trial in this study used two teachers. The teachers/practitioners in the study were Mrs. Risma Handayani, S.Pd and Mrs. Utyaningsih, S.Pd., as teachers at SDN Bojong Rangkas 02. From Table 3, the results of the assessment by the teacher, it can be interpreted that the display aspect of this media has a very good assessment with a percentage of 83.3%, which indicates that the placement of the layout and color and sound on the background are appropriate. In the content aspect, it has a percentage of 75% with a good category which shows that the material is in accordance with Basic Competencies and indicators, pictures and materials are appropriate and appropriate learning quizzes. In the writing aspect, it has a percentage of 87.5% with a very good category which indicates that the letters and clarity of the text are appropriate. Based on this assessment, it can be concluded that the media developed is

valid with several improvements, namely the need to add back sounds to the material section and add navigation buttons. The results of the assessment obtained from products that have been developed have an average of 81.93% with very good information. The results of the limited product trial can be concluded that the media based on articulating storylines are very suitable for use in learning based on teacher/practitioner assessments.

Product Revisions. Product revisions are carried out in accordance with the directions that have been assessed by material experts, media experts and teachers/practitioners. The results of the validation and trials will determine the feasibility level of the product the researcher has developed. The product revision process is very important, because the product will be reviewed by material experts and media experts and then tested by the teacher so that weaknesses and deficiencies in the product will be identified.



Figure 1 Revision of material experts



Figure 2 Revision of material experts

In Figure 1 is the condition before revision, namely in the Basic Competency section, KD 3.3 and KD 3.4 are displayed. After being revised, in Figure 2 only KD 3.3 is shown on the media.



Figure 3 Revision of media experts



Figure 4 Revision of media experts

In Figure 3 is the condition before the revision, namely the assessment score displays only one type of quiz. After being revised, Figure 4 added to the final score for the assessment of the three quizzes in order to see the average score.

4. CONCLUSION

The feasibility of articulate storylines as a learning medium developed by researchers has been validated by material experts, media experts and has conducted limited trials with two teachers. Based on the results of the validation from the material expert, it has an average rating of 79.65%, which is good or suitable for use according to the material expert. Based on the results of the validation from the media expert, it has an average rating of 86.16% in the very good or

very suitable category according to the media expert. Based on the results of limited trials, it has an average rating of 81.93% with the category very good or very feasible to use. Suggestions from researchers that the application media can be used as a medium of learning and this research is expected to become a reference in conducting research and development.

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