Development of Videoscribe-Based Multimedia on the Social Science - Thematic Learning for V-Grade Students in SD N Timuran Yogyakarta

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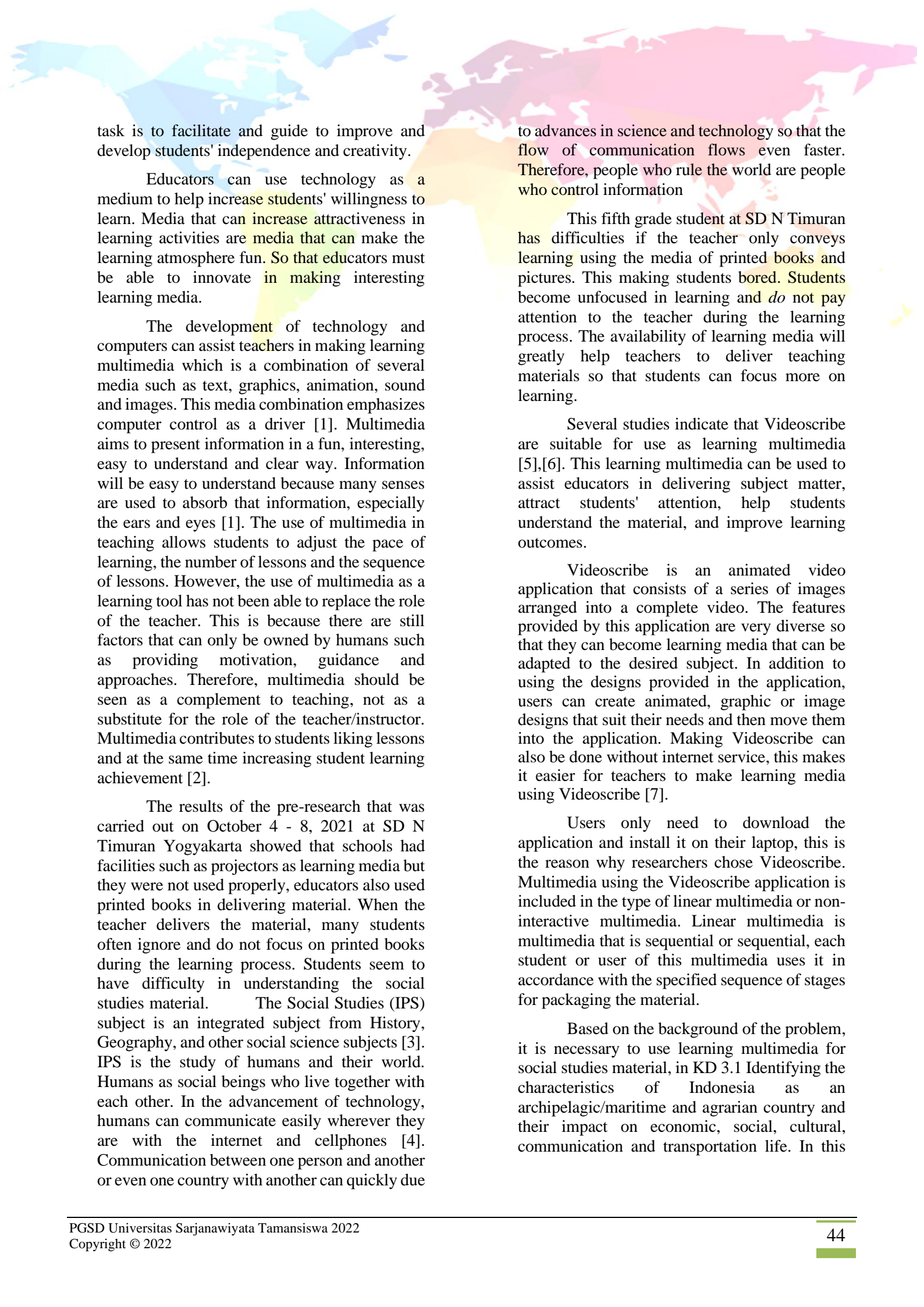Pekalongan, Indonesia
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Abstract: This research aims to (1) Developing the *VideoScribe* in the Social Science - Thematic Learning for V-grade students at SD N Timuran Yogyakarta (2) Testing the feasibility of the *VideoScribe* in the Social Science - Thematic Learning for V-grade students at SD N Timuran Yogyakarta (3) Testing the effectiveness of the *VideoScribe* in the Social Science - Thematic Learning for V-grade students at SD N Timuran Yogyakarta. This research type is Research and Development (R&D) using the Borg & Gall model which was adapted by Sugiyono in 6 steps i.e (1) potential and problems; (2) data collection; (3) product design; (4) design validation; (5) design revision; (6) product trial. The population of this study were all fifth grade students of SDN Timuran Yogyakarta (20 students). This research was conducted on March 2, 2022 and used tests, questionnaires, observations, interviews, and documentation as the data collection techniques. The data were analized using product data analysis in the form of media feasibility analysis and analysis of teacher and student responses; initial data analysis in the form of normality tests; and final data analysis in the form of Wilcoxon and N-gain tests. The results of this study indicate that videoscribe is feasible to use with the percentage of presentation feasibility by media experts is 95% (very feasible) and content feasibility by material experts is 90% (very feasible). Videoscribe-based multimedia can effectively improve the learning outcomes of fifth graders based on the Wilcoxon test to obtain sig. (2 tailed) of $0.002 < 0.05$ so that there is a significant difference between the results of the pretest and posttest and the average increase test (N-gain) of the pretest and posttest obtained by 0.492 with moderate criteria. This research concluded that the developed videoscribe is feasible and effective to use in social studies learning material on geographical characteristics in Indonesia

Keywords: *Multimedia Development, Videoscribe, Social Sciences*

1. Introduction

Education is a process that humans go through to achieve a better future. Education can create progress and better character if implemented in accordance with the curriculum. Education can be reached by formal or non-formal education. Education develops self-ability and individual strength in the future. Adjustment of the educational process to the times must be guided by regulations. Based on the Regulation of the Minister of Education and Culture Number 67 of 2013 it is stated that Indonesia adheres to the 2013 curriculum.

To support the implementation of the 2013 curriculum, the government issued Regulation of the Minister of Education and Culture Number 22 of 2016 concerning the standard of primary and secondary education which explains that the learning process in education units must be carried out in a fun, motivating, challenging, interactive, and inspiring way. This learning process can enable students to participate actively, providing opportunities to develop creativity, initiative, and independence that are tailored to the talents, interests, and psychological and physical development of students. Based on these regulations, students must be brave to be active in order to follow the lesson well. The teacher's

task is to facilitate and guide to improve and develop students' independence and creativity.

Educators can use technology as a medium to help increase students' willingness to learn. Media that can increase attractiveness in learning activities are media that can make the learning atmosphere fun. So that educators must be able to innovate in making interesting learning media.

The development of technology and computers can assist teachers in making learning multimedia which is a combination of several media such as text, graphics, animation, sound and images. This media combination emphasizes computer control as a driver [1]. Multimedia aims to present information in a fun, interesting, easy to understand and clear way. Information will be easy to understand because many senses are used to absorb that information, especially the ears and eyes [1]. The use of multimedia in teaching allows students to adjust the pace of learning, the number of lessons and the sequence of lessons. However, the use of multimedia as a learning tool has not been able to replace the role of the teacher. This is because there are still factors that can only be owned by humans such as providing motivation, guidance and approaches. Therefore, multimedia should be seen as a complement to teaching, not as a substitute for the role of the teacher/instructor. Multimedia contributes to students liking lessons and at the same time increasing student learning achievement [2].

The results of the pre-research that was carried out on October 4 - 8, 2021 at SD N Timuran Yogyakarta showed that schools had facilities such as projectors as learning media but they were not used properly, educators also used printed books in delivering material. When the teacher delivers the material, many students often ignore and do not focus on printed books during the learning process. Students seem to have difficulty in understanding the social studies material. The Social Studies (IPS) subject is an integrated subject from History, Geography, and other social science subjects [3]. IPS is the study of humans and their world. Humans as social beings who live together with each other. In the advancement of technology, humans can communicate easily wherever they are with the internet and cellphones [4]. Communication between one person and another or even one country with another can quickly due

to advances in science and technology so that the flow of communication flows even faster. Therefore, people who rule the world are people who control information

This fifth grade student at SD N Timuran has difficulties if the teacher only conveys learning using the media of printed books and pictures. This making students bored. Students become unfocused in learning and *do* not pay attention to the teacher during the learning process. The availability of learning media will greatly help teachers to deliver teaching materials so that students can focus more on learning.

Several studies indicate that Videoscribe are suitable for use as learning multimedia [5],[6]. This learning multimedia can be used to assist educators in delivering subject matter, attract students' attention, help students understand the material, and improve learning outcomes.

Videoscribe is an animated video application that consists of a series of images arranged into a complete video. The features provided by this application are very diverse so that they can become learning media that can be adapted to the desired subject. In addition to using the designs provided in the application, users can create animated, graphic or image designs that suit their needs and then move them into the application. Making Videoscribe can also be done without internet service, this makes it easier for teachers to make learning media using Videoscribe [7].

Users only need to download the application and install it on their laptop, this is the reason why researchers chose Videoscribe. Multimedia using the Videoscribe application is included in the type of linear multimedia or non-interactive multimedia. Linear multimedia is multimedia that is sequential or sequential, each student or user of this multimedia uses it in accordance with the specified sequence of stages for packaging the material.

Based on the background of the problem, it is necessary to use learning multimedia for social studies material, in KD 3.1 Identifying the characteristics of Indonesia as an archipelagic/maritime and agrarian country and their impact on economic, social, cultural, communication and transportation life. In this

study, we developed an animated video learning media using Sparkol Videoscribe.

2. Literature

Research [5] states that Videoscribe learning media is very suitable for use in learning in grade 2 elementary schools based on expert validation with a score of 96%. Videoscribe sparkol media which was developed based on Class II Problem Based Learning

Research [6] states that video learning based on the videoscibe application developed for students in grade VI SD is very suitable for use in learning Social Sciences (IPS) on material natural phenomena that occur in Indonesia.

In this research, the development of videoscribe-based multimedia is carried out in the thematic learning of Social Science content in class V. The learning material used in multimedia is social studies material, in KD 3.1 Identifying the characteristics of Indonesia as an archipelagic/maritime and agrarian country and their impact on economic , social, cultural, communication and transportation life.

3. Material & Methodology

3.1. Data

Data collection techniques in this study were carried out using test and non-test techniques. The test technique was carried out by pretest and posttest while the non-test technique was carried out by observation, questionnaires or questionnaires, interviews, and document data. The instruments in this research are:

1. Preliminary Instruments in the form of interview instruments to educators which are arranged to find out what kind of media is in accordance with the needs of students

2. Expert Validation Instruments: a) Media Expert Validation Instrument, this instrument is in the form of a validation questionnaire related to the presentation of Videoscribe-Based Multimedia.; b) Material Expert Validation Instrument, This instrument is in the form of a validation questionnaire related to the feasibility of the content of the material and the appropriateness of the evaluation in Multimedia Videoscribe.; c) This Educator Validation Instrument is in the form of a validation questionnaire related to the

feasibility of content and the feasibility of presentation in videoscribe-based multimedia.

3. Product trial instrument. This instrument is in the form of a questionnaire used to collect opinions about the students' responses to the developed videoscribe-based multimedia.

The data analysis technique used in this research is qualitative and quantitative data analysis. Quantitative data is data in the form of numbers. This data was obtained by the test technique. Quantitative data in this study were obtained from the results of the pretest and posttest.

3.2. Method

This type of research is Research and Development (R&D). Research and development is a research method that is used to make certain products, and test the success of these products [8]. To make a particular product, the researcher must conduct a needs analysis and test the success of the product so that it can function in the community.

This research was conducted at SD N Timuran Yogyakarta, which is located at Prawirotaman street No. 1 Yogyakarta, Brontokusuman, Mergangsan, Yogyakarta, in the 2021/2022 academic year. The subjects in this study were 20 students, consisting of 8 male students and 12 female students. This research also involves experts such as media experts and Social Science material experts to validate the learning media created

This research is research & development using the Borg and Gall model which consists of 10 steps, namely (1) potential and problems; (2) data/information collection; (3) product design; (4) design validation; (5) design revision; (6) product trial; (7) product revision; (8) trial use; (9) product revision; (10) manufacture of mass products [8]. However, due to time and cost limitations, the researcher only used 6 research and development steps. The research and development steps used are: (1) potential and problems; (2) data collection; (3) product design; (4) design validation; (5) design revision; (6) product trial.

4. Results and Discussion

The development of videoscribe-based multimedia begins with finding potentials and problems through pre-research activities, namely carrying out problem identification using observation techniques, interviews with fifth grade teachers and collecting data on learning outcomes for fifth grade students at SDN Timuran Yogyakarta. From the

results of the pre-research, it was found that there were problems related to the limitations of the media in the form of pictures, LCD projectors, laptops, and speakers that had not been used as their functions. The use of media projectors, laptops and speakers is only for displaying material on electronic books which causes students to be less enthusiastic in learning and has an impact on low social studies learning outcomes.

The results of the videoscribe-based multimedia feasibility assessment on social studies subjects on geographical characteristics in Indonesia class V SDN Timuran Yogyakarta were carried out by media experts and material experts who provided assessments using assessment validation instruments according to book sources that had been developed. The results of the assessment by media experts were carried out to test the feasibility of presenting videoscribe-based multimedia. There are 10 descriptors and the overall validation results of media experts get 38 out of a score scale of 40 with a percentage of 95% (very feasible category). This videoscribe-based multimedia has been prepared by displaying the title, basic competencies, indicators and learning objectives to be achieved. The results of the assessment by material experts related to the content feasibility component got 35 out of a score scale of 40 with a percentage of 90% (very feasible category).

The effectiveness of the videoscribe learning media can be seen through student learning outcomes, namely the pretest and posttest scores. Pretest scores were obtained before participating in social studies learning material on geographical characteristics in Indonesia using videoscribe-based multimedia. While the posttest scores were obtained after students took part in social studies learning material on geographical characteristics in Indonesia using videoscribe-based multimedia. Based on the average value of the pretest is 72.8 and the average value of the posttest is 86.2. In addition, the number of students who obtained a complete score on the pretest score was 7 students (35%) and students who obtained a complete score on the posttest score were 20 students (100%).

5. Conclusion

Based on the results of the study, it can be concluded that: 1). Videoscribe-based multimedia in the thematic learning of social science content for fifth grade students at SDN Timuran Yogyakarta has been produced in the form of hardware or software has been produced through six stages, namely: (1) potential and problems; (2) data collection; (3) product design; (4) design validation; (5) design revision; (6) product trial. 2) Videoscribe-based multimedia has been developed based on the content feasibility assessment by media experts and material experts including the very appropriate criteria for the presentation feasibility component with a percentage of 95% and the content feasibility component with a percentage of 90%. 3) The use of Videoscribe-based multimedia learning media is effectively used in social studies learning material for Social Studies. Theme 5 sub-theme 1 in KD 3.1 identifies the geographical characteristics of Indonesia as an archipelagic/maritime and agrarian country and its influence on economic, socio-cultural, communication and transportation life. This is shown based on students' cognitive learning outcomes in the pretest and posttest scores, there is an average difference of 13.4

Acknowledgement

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