DEVELOPMENT OF INTERACTIVE MULTIMEDIA BASED ON ARTICULATE STORYLINE ON ETHNIC AND CULTURAL DIVERSITY MATERIAL

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Abstract

The background of this research is the observation of class IV teachers at SDN 1 Lengkong, Nganjuk Regency. In the teaching and learning process, the teacher does not use learning media and is only fixated on textbooks as the only source of teaching and learning so that students tend to have difficulty understanding the material taught by the class teacher. The formulation of the research problem: How is the validity, practicality, effectiveness of articulate storyline-based interactive multimedia for material on ethnic and cultural diversity in Indonesia in class IV students at SDN 1 Lengkong? In this study using the type of research and development (Research and Development). The model used is the ADDIE model (Analysis, Design, Development, Implementation, Evaluation) developed by Sugiyono. The research subjects were fourth grade students at SDN 1 Lengkong. The results of the study (1) The results of the validation of media experts obtained a percentage of 84.5% and material experts 95%. The average level of validity score is 90%, it can be stated that it is very valid. (2) The results of the student response questionnaire obtained a percentage of 94% and the teacher's response questionnaire was 86%. The average level of practicality gets a score of 90%, it can be stated that it is very practical. (3) The results of limited trials obtained a percentage of 84% and 87% of wide trials. The average level of effectiveness gets a score of 85.5%, so it can be stated that it is very significant.

Keywords: interactive multimedia, articulate storyline, ethnic and cultural diversity

Abstrak

Latar belakang penelitian ini ialah observasi guru kelas IV SDN 1 Lengkong Kabupaten Nganjuk. Dalam proses belajar mengajar, guru tidak menggunakan media pembelajaran dan hanya terpaku pada buku teks sebagai satu-satunya sumber belajar mengajar sehingga siswa cenderung sulit memahami materi yang diajarkan oleh guru kelas. Rumusan masalah penelitian ini: Bagaimana

kevalidan, kepraktisan, keefektifan multimedia interaktif berbasis *articulate storyline* untuk materi keberagaman suku dan budaya di Indonesia pada siswa kelas IV SDN 1 Lengkong? Pada penelitian ini menggunakan jenis penelitian dan pengembangan (*Research and Development*). Model yang digunakan adalah model ADDIE (Analysis, Design, Development, Implementation, Evaluation) yang dikembangkan oleh Sugiyono. Subjek peneliian ialah siswa kelas IV SDN 1 Lengkong. Hasil dari penelitian (1) Hasil validasi ahli media diperoleh presentase 84,5% dan ahli materi 95%. Rata-rata tingkat kevalidan skor 90%, dapat dinyatakan sangat valid. (2) Hasil angket respon siswa diperoleh presentase 94% dan angket respon guru 86%. Rata-rata tingkat kepraktisan mendapatkan skor 90%, dapat dinyatakan sangat praktis. (3) Hasil uji coba terbatas diperoleh presentase 84% dan uji coba luas 87%. Rata-rata tingkat keefektifan mendapatkan skor sebesar 85,5%, sehingga dapat dinyatakan bahwa sangat signifikan.

Kata Kunci: multimedia interaktif, *articulate storyline*, keberagaman suku dan budaya

INTRODUCTION

The Civics subject is one of the subjects taught at both elementary, middle and high school levels. PPKn is not an independent science like other sciences, but PPKn material uses science materials that are selected and adapted to teaching and educational goals. According to (Susanti & Endayani, 2018) "The essence of PPKn is a concept of thinking based on the reality of the social conditions of students in the environment, so that by providing PPKn education it can produce good citizens who are responsible for their nation and state." Ideal and high-quality Civics learning for students at the elementary school (SD) level is learning in which students can gain understanding through experience and knowledge based on what they think. Because basically the potential level of understanding of students is different, teacher assistance is needed to understand the characteristics of each student so that they remain aligned and harmonious in learning.

Based on the results of observations, PPKn learning problems were found in class IV students at SDN 1 Lengkong, Nganjuk. In the teaching and learning process, most teachers do not use learning media and only focus on textbooks as the only source of teaching and learning. Therefore, learning is not yet innovative, making it difficult for students to understand the material taught by the teacher, and students' enthusiasm for learning is low. This condition means that the grades obtained by students are ultimately unsatisfactory.

Based on the problems above, this research will develop a learning media, namely the development of articulate storyline-based interactive multimedia in PPKn learning material on cultural and ethnic diversity in Indonesia for fourth grade elementary school students. Articulate storyline is a software that functions as a supporting medium for learning. According to (Saski; & Sudarwanto, 2021) articulate storyline is software that uses an e-learning system whose function is as a learning aid with an interactive design. This software is produced by a company that runs on e-learning, namely the company Articulate 360. The publication format for this articulate storyline includes .swf, and .exe, so it is easy to save on a personal computer. According to (Rianto, 2020) "Articulate storyline" is software that has features almost similar to Microsoft PowerPoint. Articulate storyline is equipped with more features that can increase student interaction with students." Meanwhile, according to (Rahmania et al., 2021) articulate storyline is a kind of application or program that has text, image, video, audio, photo and animation features.

With the existence of interactive multimedia, articulate storylines have an urgency to support, make the teaching and learning process interesting, innovative and foster students' enthusiasm and motivation to learn material related to ethnic and cultural diversity in Indonesia. This interactive multimedia uses interesting, innovative technology with images and audio. This can make learning varied, foster students' enthusiasm for learning, and students become more active in the learning process. According to (Sumardi, 2020) "Learning becomes innovative and interesting if learning activities are presented through technology with various images and audio.

Therefore, to answer the existing research problems and urgency, the researcher took a research topic with the title "Development of Interactive Multimedia Based on Articulate Storyline on Ethnic and Cultural Diversity Material in Indonesia Class IV Sdn 1 Lengkong Nganjuk Regency"

RESEARCH METHODS

This type of research is development research or Research and Development because this research develops and produces a product. The development model used is guided by the ADDIE model (Sugiyono, 2019). The stages of this model include: Analysis, Design, Development, Implementation, and Evaluation. Data collection used includes observations, interviews, tests,

questionnaires and documentation. Meanwhile, the data analysis technique is testing the validity, practicality and effectiveness of the media being developed.

The analysis is carried out in 2 steps, namely performance analysis and needs analysis. The first stage, namely performance analysis, is carried out to find out and classify whether the performance problems faced require a solution in the form of implementing a learning program or improving management. The second stage, namely needs analysis, is a necessary step to determine the abilities or competencies that students need to learn to improve their performance or learning achievement. This can be done if the learning program is considered as a solution to the learning problem being faced.

Design, in this step the focus needs to be focused on efforts to investigate the learning problem being faced. This is the essence of the analysis step, namely studying the problem and finding alternative solutions that will be taken to overcome the learning problems identified through the needs analysis step. An important step that needs to be taken in design is to determine the learning experience that students need to have while participating in learning activities.

The development step includes the activities of creating, purchasing, and modifying the articulate storyline to achieve predetermined learning objectives. The provision of an articulate storyline needs to be adjusted to the specific learning objectives or learning outcomes that have been formulated by the designer or learning program designer in the design step. The development step, in other words, includes the activity of selecting and determining appropriate methods, media and learning strategies to be used in delivering the material or substance of the learning program.

Implementation steps are often associated with the implementation of the learning program itself. This step does have the meaning of delivering learning material from the teacher or instructor to the students.

Evaluation can be defined as a process that will be carried out to provide value to a learning program. Basically, evaluation can be carried out throughout the implementation of the five steps in the ADDIE model.

RESULTS AND DISCUSSION

The results of the development research that has been carried out can be seen from the stages of the development model used, namely ADDIE (Analysis), (Design), (Development), (Implementation), (Evaluation). The following is an explanation of the results and discussion of this research.

The results of the analysis stage consist of two stages, namely: needs and performance analysis. The first stage, namely needs analysis, is a necessary step to determine the abilities or competencies that students need to learn to improve their performance or learning achievement. This can be done if the learning program is considered as a solution to the learning problem being faced. Meanwhile, the second stage, namely performance analysis, is carried out to find out and classify whether the performance problems faced require a solution in the form of implementing a learning program or improving management.

The design stage carries out design and designing interactive multimedia based on an articulate storyline on the topic of ethnic and cultural diversity in Indonesia. The results at the design stage contain components including text, fonts, and images that match the material. The appearance of this media development design is as follows.

Image 1. Cover and menu display

The next stage of developing interactive multimedia based on an articulate storyline is a validation process. The validation stage includes validation of media and material experts which aims to provide comments and suggestions for improving this media. Before it is implemented in learning activities. The media expert validation stage was validated by Dr. Risky Aswi Ramadhani, M.Kom. and material expert validation was carried out by expert Erwin Putera Permana, M.Pd.

The following are the media validation results and material validation results which are depicted in the table below.

Table 1. Expert Validation Results

No	Validation Aspect	Percentage	Validity
1	Ahli media	84,5%	Valid
2	Ahli materi	95 %	Very valid
Rata – rata		90 %	Very valid

Based on the results of the two validation tests, the validity results of articulate storyline-based interactive multimedia were obtained with a percentage of media experts of 84.5% and material experts of 95% with an average validity result of 90%. It was stated that articulate storyline-based interactive multimedia was very valid.

Table 2. Valid Criteria

Percentage	Validity Category	Information
86% - 100%	Very Valid	Very good to uses
71% - 85%	Valid	May be used after minor revision
56% - 70%	Quite valid	May be used after major revision
41% - 55%	Less valid	May not be used
25% - 40%	Invalid	May not be used

The implementation stage involves limited and extensive trials at SDN 1 Lengkong. Limited trials were carried out with 6 students, and then extensive trials were carried out with 195 students. These results were obtained through analysis of effectiveness data by working on evaluation questions. Later the scores obtained will be used as a benchmark for the level of success in learning completion. The following are the results of the evaluation questions for limited and extensive trials.

Table 3. Effectiveness Results

Test Results	KKM	Evaluation Results	Information
Terbatas	78	84	Tuntas
Luas	78	87	Tuntas

Rata – rata	85	Tuntas

Based on the results from the table above, it is known that students' scores from the results of limited and extensive trials obtained scores of 84% and 87% with the average of both being 85%. Thus, it can be concluded that articulate storyline-based interactive multimedia is very effective in use in learning activities.

Next, the results of the analysis of teacher and student responses are needed to determine the practicality of articulate storyline-based interactive multimedia using a Likert scale. The following are the results of teacher and student responses.

Table 4. Results of teacher and student responses

Response Results	Score Total	Maximum Score	Percentage	Information
Guru	43	50	86%	Very Good
Siswa	212	225	94%	Very Good
Rata – rata			90%	Very Good

Based on the table above, it can be concluded that the teacher response assessment results obtained a score of 96%, the student response was 94%, with the average result for both being 90%. Thus, articulate-based interactive multimedia reaches the very good category so that the media can be used practically in learning activities.

The final stage, namely evaluation, is carried out at each stage of the development model. Stages (Analysis), (Design), (Development) expert validation evaluation, (Implementation) analyzing the media whether there are still deficiencies and weaknesses in articulate storyline-based interactive multimedia.

Based on the results and discussion that have been presented, the data occurs because the data that is processed is in the form of numbers resulting from an assessment by filling out a questionnaire on the validity, effectiveness and practicality of the articulate storyline media. The data obtained is then processed using formulas and can also use statistical systems. However, to get valid results, a good instrument and correct calculations are needed, because a good instrument will obtain valid data. According to (Rahmat, 2019) data is said to be valid data if the data shows the results that actually occurred and were obtained.

This research is relevant to previous research. The first research is "Development of learning tools using problem-based learning in Civics learning regarding ethnic and cultural diversity for fourth grade elementary school". This research was conducted by Nurul Islamiyatul Laili stating that the learning tools met the validity criteria obtained from the results of the validator assessment analysis which achieved very good criteria, the tools consisted of a syllabus with an average score of 3.42, lesson plans with an average score of 3.92 , LKPD with an average score of 3.84, LP with an average score of 3.75, and teaching materials with an average score of 3.79. So practicality can be seen from the validator's assessment which states that the learning tools can be applied, therefore the learning tools are said to be valid and practical.

Nurul Islamiyatul Laili's research in 2021 has similarities with this research in that they both have the same material. Meanwhile, the difference is that this research developed an interactive multimedia articulate storyline.

Second, "Development of Interactive Media Based on Articulate Storyline for Civics Subjects in Class IV MIN 1 Jombang". Research conducted by Mohammad Alfan Nugroho stated that the results of media product research that was validated obtained a design validation percentage of 91% in the very good category, material validation was 91% in the very good category, both of which showed that the media was very valid and very suitable for use. The level of media attractiveness was obtained from the results of student responses with a percentage of 87.6% in the interesting category. The level of media effectiveness was obtained through pretest results of 62.18 and posttest results of 93.75.

This research belonging to Mohammad Alfan Nugroho in 2022 has similarities, namely that they are both developing interactive media based on an articulate storyline. Meanwhile, the difference is the design used and the materials, namely ethnic and cultural diversity (Romaito et al., 2021; Romansyah et al., 2019; Safitri et al., 2023; Safitri & Hasibuan, 2018).

The novelty of this research is creating interactive media based on an articulate storyline that is more creative and innovative. Where material on ethnic and cultural diversity is packaged with images, automatic buttons and attractive fonts, the material can be accessed via the internet or not using the internet. In line with this, according to (Santyasa et al., 2020) the results of articulate storyline media can be converted into website-based ones which can make it easier for

both students and teachers in learning activities. Meanwhile, according to (Rohmah & Bukhori, 2020) the results of articulate storyline media can be accessed either online or offline, making it easier to access and study wherever you are.

Based on this novelty, it can be used as a basis for responding to the urgency of research, namely supporting, making the teaching and learning process interesting, innovative and fostering student enthusiasm and motivation to learn material related to ethnic and cultural diversity in Indonesia. According to (Sumardi, 2020) "Learning becomes innovative and interesting if learning activities are presented with various images and audio.

Based on the results of these problems, it was found that the scientific impact of this research on education in the future includes: articulate storyline media can be used as a supporting medium for learning in the future. Because in the future times and technology will develop rapidly, it is very important to understand and use technology-based media. According to (Juhaeni; et al., 2021) Changes in the systematics of education from conventional to utilizing technology, making education in the future able to innovate to develop technology in learning. Meanwhile, according to (Safaruddin, Degeng et al., 2020) the use of interactive multimedia in education in the future will have a big influence on stimulating students, making it easier for students to respond to existing material (Fitriani et al., 2022; Hariati et al., 2020; Hildani & Safitri, 2021).

CONCLUSION

The results of research on the development of articulate storyline-based interactive multimedia on ethnic and cultural diversity in Indonesia concluded that: Interactive multimedia based on articulate storyline was declared very valid with a percentage of media experts of 84.5% and material experts of 95%, with an average validity level of 90%. . The results of teacher and student responses regarding articulate storyline-based interactive multimedia were said to be very practical, getting percentages of 86% and 96%. Meanwhile, the effectiveness of articulate storyline-based interactive multimedia was said to be very effective after a limited trial obtained a percentage of 84% and a wide trial of 87%, with an average level of effectiveness of 85.5%. Based on these results, articulate storyline-based interactive multimedia can be used as a solution to overcome problems.

THANKYOU NOTE

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