



Interactive Media Articulate Storyline to Improving Students' Learning Outcomes on Traditional Engklek Games Material

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ARTICLE INFO

Article history:

Received July 10, 2023

Revised July 11, 2023

Accepted November 12, 2023

Available online November 25, 2023

Kata Kunci:

Articulate Storyline, Hasil Belajar, Permainan Tradisional Engklek

Keywords:

Articulate Storyline, Learning Outcomes, Traditional Engklek Games

DOI:

<https://doi.org/10.23887/jet.v7i4.69268>

ABSTRAK

Penerapan permainan tradisional dalam pembelajaran masih jarang diterapkan di sekolah dasar. Oleh karena itu kita membutuhkan media belajar yang mampu memperkenalkan teknologi tradisional berdasarkan teknologi yang menarik bagi siswa. Penelitian ini bertujuan untuk menganalisis keefektifan media pembelajaran interaktif Articulate Storyline dalam meningkatkan hasil belajar siswa kelas IV materi Gerak pada Permainan Tradisional Engklek. Jenis penelitian yang digunakan adalah penelitian dan pengembangan yang mengacu pada model ADDIE. Penentuan keefektifan internal media dilakukan dengan melakukan validasi kepada ahli dan praktisi media dan materi. Selanjutnya keefektifan dilakukan dengan melakukan uji coba skala kecil dan skala besar melalui pretest dan posttest. Hasil penelitian menunjukkan penilaian rata-rata dari ahli media dan materi yaitu sebesar 91% dan 90% dengan kriteria sangat layak. Hasil uji-t menunjukkan bahwa nilai sig. (2-tailed) adalah 0,000 artinya $< 0,05$. Uji N-Gain menunjukkan nilai 0,69 dengan kategori sedang, sehingga dapat disimpulkan bahwa terdapat peningkatan rata-rata nilai pretest dan posttest. Simpulan penelitian ini yaitu media pembelajaran interaktif Articulate Storyline layak dan efektif digunakan untuk meningkatkan hasil belajar siswa kelas IV pada materi Gerak pada Permainan Tradisional Engklek.

ABSTRACT

The application of traditional games in learning is still rarely implemented in elementary schools. Therefore we need learning media that is able to introduce traditional technology based on technology that is interesting for students. This study aims to analyze the effectiveness of interactive learning media Articulate Storyline in improving learning outcomes in fourth grade students Movement material on Traditional Engklek Games. The type of research used is research and development that refers to the ADDIE model. Determination of internal media validity is done by carrying out validation to experts and practitioners of media and material. Effectiveness is then determined by conducting small scale and large scale tests through pretest and posttest. The t-test results showed that the sig. value (2-tailed) is 0,000 meaning < 0.05 . The N-Gain test shows a value of 0.69 with a medium category, so it can be concluded that there is an increase in the average value of the pretest and posttest. The conclusion of this study is that the interactive learning media Articulate Storyline is useful and effective used to improve the learning outcomes of fourth grade students on Movement on Traditional Engklek Games.

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1. INTRODUCTION

Education is a conscious and systematic effort towards a better standard of living or progress. According to Act No. 20 of 2003, education is a conscious and planned effort to create an atmosphere of learning and learning processes so that students actively develop their potential to have spiritual qualities of religion, self-control, personality, intelligence, noble morality, as well as the skills necessary for themselves, the community of the nation, and the country. Education is a very important activity that everyone has to implement in order to be able to develop the potential in it so that he can know the skills that they have (Hau et al., 2020; Rohaeti & Bernard, 2018). Education also teaches to think critically and find solutions to problems that arise in everyday life (Marshman et al., 2020; Sari & Soenarno, 2008; Arsyad et al., 2018). In education, all components must also be able to work because when only one component exists there is no maximum in learning because in education, teachers and students are necessary as educational purposes (Atalay, 2015; Turiman et al., 2012). In education, there is two-way communication between teachers and students so that the educational objectives can be met (Didit et al., 2021; Stohlmann et al., 2012).

Based on the Annex to the Regulation of the Minister of Education and Culture No. 21 of 2016 on the Basic and Secondary Education Content Standards, the scope of the SBdP (Cultural Arts and Works) covers visual arts, musical arts, dance arts, drama arts and skills. The art of dancing is one of the means of conveying messages that can attract the attention of students at the elementary school (Asriyanto et al., 2022; Foster, 2012). The art of

dancing is a way to love the body that can express expression through improvisation of movement so that it can accept itself as it is. In the creation of the art of dance students can improve basic motor skills in accordance with the development of the characteristics of students that are unique, creative, pure, reflexive and active (Arsyad & Fatmawati, 2018; Sani & Yuliasma, 2022a).

Learning the arts of dance becomes a medium that can make the students express themselves in the movements. Good education is supported by the competence of a well-qualified educator. Teachers have a very important role in the learning process so that the learning objectives can be achieved effectively and efficiently, among other things, the skills of holding variations and skills using learning media (Pernanda & Astuti, 2021; Setiawan & Surabaya, 2019; Zandkarimi., 2013). The variation in the use of media will create the teaching learning process to be interesting and enjoyable. This is supported by which stated that learning media is very useful in the learning process among them: (1) increased learning motivation of students because learning is more attractive; (2) material clarity so that it is easy to understand; (3) variation of teaching style makes students not bored; and (4) student activity in activities such as observing, demonstrating, acting, and so on (Krüger & Bodemer, 2022; Mawardi, 2016; Vargo et al., 2016).

The use of media in learning has many benefits in the learning process. Learning media has utilities that can overcome barriers such as communication barriers and restrictions in the classroom (Bernard & Setiawan, 2020; Nurrita, 2018). The evolving changes in science and technology are able to bring so many benefits to the world of education, both in the learning process and in the use of the media itself (Lely et al., 2020; Yeh & Tseng, 2019). Learning with the help of a computer is an alternative decision that can be used as a learning tool or medium (Ilmi, S. A., Ratnawati, R., & Subhan, 2021; Potter, 2018). The use of computer technology in the field of education, especially in learning today has been used extensively, it is not unavoidable for educators in delivering learning material to be more creative and not boring for the students (Astra et al., 2020; Sefriani & Sepriana, 2022). However, facts in the field found on the basis of research carried out by researchers at elementary school, data obtained through interviews, data of learning outcomes of Fourth grade elementary school students, documentation, lifting of needs of teachers and students show that the media used in learning dance art is only video displayed on LCD. The learning resources used by teachers when teaching dance art are teacher books, student books and videos on youtube. Students have not been involved in the use of technology-based media. Based on the results of the interviews, the student's learning results data, documentation, training needs of teachers and students showed the dance art learning outcomes in Class has not been achieved with maximum. This is due to the lack of optimal dance arts learning media, learning media used only as a video.

The limitations of the learning media used have an impact on learning outcomes (Sani & Yuliasma, 2022b; R. K. Sari & Harjono, 2021). The problem is supported by the learning results of students in class IV in particular movement learning on traditional games obtained a score of 22 students by 55% below KKM and 45% above KKM (Minimum Testing Criteria). With the established KKM is 75. Based on the problem on the movement material on the traditional game in Fourth grade elementary school students, researchers have a solution to solve the problem by developing interactive learning media Articulate Storyline which aims to help maximize the learning outcome of Fourth grade elementary school students. Broadly media is material, or event that creates an atmosphere of learning aimed at realizing students acquire skills, attitudes and knowledge. Articulate Storyline is a software or multimedia tools that can be used and used to create interactive learning media containing collaboration of text, images, sounds, videos, animations as well as graphics (Legina & Sari, 2022; Sindu et al., 2020). The Articulate Storyline application has many features with a combination of slides, videos, flash (swf) and animated characters in one. Media Articulates Storylines have a variety of interesting templates so they can create a learning media project easily and in a short time (Jais & Amri, 2021; Saadah et al., 2022).

This research is supported by a study entitled "Development of Learning Media Theme 3 Subtema 3 Based Articulate Storyline 3 in Class VA SDIT Mutiara City Pariaman" conducted by Ririn Salwani and Yetti Ariani stated that the Articulated Storylines media deserves to be used as a learning medium. Based on validity and practicality tests, the average media validation result in the first stage was 78.33% and 61.66% was the average material validation outcome. In the second medium validation, the ratio was 81.66%, and 88.33%, was the mean material validations outcome and the average result was 94.45% as a result of the student's response to the media Articulate Storyline. The difference between this research and the research carried out by researchers is that the media developed by the researchers are Articulate Storyline media created with the help of technology. Media Articulate Storyline is accompanied by images and videos to enhance the understanding of learners. Based on this background, the researchers' limited problems in the development of learning media Articulate Storyline. This research aims to analyze the needs of teachers, develop, test qualifications, and test the effectiveness of learning media Articulate Storyline motion material on traditional games in improving learning outcomes in Fourth grade elementary school.

2. METHOD

This research uses the type of research and development or Research and Development (R & D) which is a research method used to produce a particular product used in research that is of a need analysis nature and to test the effectiveness of such a product so that it can function in the wider public, then it is necessary to research to test that product efficacy (Sugiyono, 2016). According to ADDIE (2013), there are five stages of development used in this model, namely Analysis, Design, Development, Implementation and Evaluation. The stages is show in Figure 1.

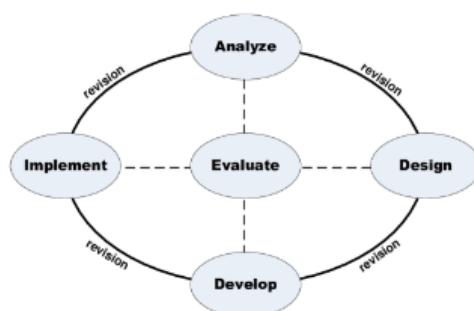


Figure 1. Stages of the ADDIE Development Model

The implementation of this research is adapted to the stage of analysis carried out by the researchers by collecting information by means of interviews to find out the problems that exist in Fourth grade elementary school. Based on the data obtained shows the problems related to the media learning art dance material movement on engklek traditional games. To solve existing problems researchers developed learning media Articulate Storyline. To learn further information about the needs of teachers and students participants researchers spread the media development needs of the teacher and fourth grade elementary school students. The second stage is the design, the researchers start to design the media that will be developed. It starts with the selection of media, the design of media drafts, the prototyping of media designs, and the development of research instruments. The third stage is development, researchers produce the product developed by developing the media, media validation by experts, small group testing, and product revision. The fourth stage is implementation by testing the media developed on large groups. The final stage of evaluation is that researchers evaluate each of the four stages of the development model in order to minimize the occurrence of errors and to improve the learning media. The evaluation that is performed at each of four development stages is called formative evaluation, aimed at the needs of the revision. Categories of media expert and material expert validation scores is show in Table 1. Then likert scale percentages is show in Table 2.

Table 1. Categories of Media Expert and Material Expert Validation Scores

Scale Score	Validation Criteria
5	Very goof
4	Good
3	Good Enough
2	Not so good
1	Very poor

Table 2. Media Eligibility Criteria based on the Likert Scale Percentage

No.	Percentage of Assesment Results	Description
1	886%-100%	Very Feasible
2	61%-80%	Worth
3	41%-60%	Decent Enough
4	21%-40%	Less Feasible
5	0%-20%	Not Feasible

The subjects of this research are teachers and Fourth grade elementary school students. The number of students in one class is 22 students who are subjected to large group product testing. And the test of small group product was conducted against 6 students of fourth class with purposive sampling technique. The free variable in this research is the media articulate storyline while the bound variable is the result of learning movement on traditional engklek in fourth class. Data collection methods using interviews, documentation, lifting and tests. Data

analysis techniques, including product needs data analysis, initial data analysis with normality tests, as well as final data analysis by N-gain tests.

3. RESULT AND DISCUSSION

Result

The results of the development of the learning media Articulate Storyline based on the game engklek on the learning of the Dance Arts is carried out through the R&D phases of the ADDIE model consisting of five phases, as follows: first, Analysis of Students' Interest in Learning Dance Arts. The phase of analysis is the first phase in developing the model ADDIE. In this phase the researchers carry out analysis on the media to be developed in the learning. The analysis is performed on the basis of observations and observations performed by the researcher. The researchers conducted an analysis of the characteristics of the students, the characteristic of the educators and the learning material. Then the researchers found it difficult for the students to understand the material submitted by the educator because the learning activities carried out by educators still use a monotonous and less varied media. This led to complaints from the students because of the lack of detailed explanation in the delivery of the material so that they understood the material that has been delivered. Next, the researchers conduct material analysis in accordance with the existing Learning Access on the basis of the curriculum.

Second, The design of interactive media articulate storyline. Results are the main part of scientific articles, containing: final results without data analysis process, hypothesis testing results. Results can be presented with tables or graphs, to clarify the results verbally. Discussion is the most important part of the entire contents of scientific articles. The objectives of the discussion are: answering research problems, interpreting findings, integrating findings from research into existing sets of knowledge and composing new theories or modifying existing theories. Third, Development of interactive media articulate storyline. The development phase is the third phase in the development of the ADDIE model. In this phase, the plans that have been made at the design stage will be incorporated into the Articulate Storyline media. Here are the results of the Articulate Storyline media shown in Figure 2.



Figure 2. Interactive Media Articulate Storyline

Fourth, implementation of interactive media articulate storyline to improve learning outcomes on traditional engklek games. In this fourth stage, the success of the previous step is known. For the interactive media articulate storyline, two experts test it, the media expert and the material expert. Validation is done by distributing the questionnaire to two experts. After getting a score from the experts, the researchers tested the interactive media articulate storyline on fourth grade elementary school students. Media testing is done by distributing pre-test and post-test questionnaire links along with interactive media articulate storyline to students. Students are given four days to facilitate filling in pre-test and posttest questionnaires and using media. The test begins by asking students to fill in a prep-test questionnaire before using the press. After filling out a pre-test questionnaire, students can use the media and proceed to filling up post-test questions.

Data analysis techniques for pretest and posttest in this study use One Group Pretest-Posttest Design. In addition, the t: Paired Sample Test and N-Gain Score tests are the normality tests used in this study. Paired Sample test is shown in Table 3.

Table 3. Paired Samples Test

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 Pretest–Posttest	33.182	11.291	2.407	-38.188	-28.176	-13.784	21	0.000

Based on [Table 3](#), the results showed a significant effect of the interactive media Articulate Storyline on pre-test and posttest fourth-grade students. Because the probability value is below 0.05, which is 0, H_0 is rejected, and H_a is accepted. The N-Gain Score test is shown in [Table 4](#).

Table 4. N-Gain Test

	Pretest Score	Posttest Score	Posttest Score-Pretest Score	N Gain Score	N Gain Score %	Criteria
Mean	46.36	82.72	36.36	0.69	69%	Medium

In [Table 4](#), the N-gain test results indicated that the interactive media Articulate Storyline created and developed by the researchers was in the middle of the criteria with a N-gain score of 0.96. This indicates that the Interactive Media Articulates Storylines is sufficient to improve the learning outcomes of movement on traditional games for fourth-grade elementary school students.

Evaluation of Interactive Media Articulate Storyline to Improve Learning Outcomes on Traditional Engklek Games

In this study, evaluation is the final stage of development. At this stage, experts perform formative evaluations to provide feedback that will then be used to make improvements. The media expert who validated the interactive media articulate storyline is a lecturer at the Faculty of Educational Sciences and Psychology, Semarang State University. These aspects of validation are related to the development of this media. The media experts' validation results are shown in the [Table 5](#).

Table 5. Result of Validation by Media Experts

Aspect	Percentage (%)	Validation Criteria
Media Compatibility	91%	Worth
Graphic	91%	Worth
Software	90%	Worth
Mean	91%	Worth

Based on [Table 5](#), the results of validation by the media experts fall into the correct category by a percentage of 91%. The material expert who validates the material in this study is a lecturer at the Faculty of Arts and Languages, Semarang State University. The validated aspects are related to material development. Validation results by material experts are shown in the [Table 6](#).

Table 6. Result of Validation by Material Experts

Aspect	Percentage (%)	Validation Criteria
Material	90%	Worth
Material presentation	91%	Worth
Languages	88%	Worth
Mean	90%	Worth

Based on [Table 6](#), the results of validation by the material experts fall into the corresponding category of 90%. The media and material belong to the qualifying category of the results obtained. However, this interactive media articulate storyline needs to be improved to make it more relevant. Therefore, expert advice is needed in developing this media. Besides, various aspects that need to be enhanced include the menu layout and font size.

Discussion

In line with the results of the research that has been carried out, the interactive media Articulate Storyline has been successfully developed. The results of the validation test given by the two validators, the material expert gets a percentage of 90% according to the criteria that have been specified then the percentages are categorized

very qualifying. While the evaluation of the test validation by the media validator gets an average of 91% so can be categorized highly qualified. Similarly, the t-test results showed that the sig. value (2-tailed) is 0,000 meaning < 0.05 . The N-Gain test showed a value of 0.69 with a medium category, so it could be concluded that there was an increase in the average value of the pretest and posttest. Then can be concluded interactive media Articulate Storyline Movement material on traditional games engklek deserves to be applied and used in the learning process of teaching.

In line with previously applied research and development on the research Articulate Storyline based critical thinking skills on water cycle material obtained a very good category, so that the learning media Articulates Storyline is worthy to be used by teachers and students in the special learning process of dance learning through material and issues that the students are expected to be able to understand by using reasoning, logical thinking, rational thinking in completing and making decisions in class (Arwanda et al., 2020). Learning activities using Articulated Storylines are worth using as well as used when learning activities are taking place and its use can be independently so that learning activities run effectively and interesting (Irhasyuarna et al., 2022). In addition, the above statement can be reinforced by stating that the implementation of the learning media Articulate Storyline can support the learning process, this Article Storylines can present material by combining (texts, images, audio and video), material delivered to become more interesting and facilitate understanding.

This interactive media Articulate Storyline in the process of its use can provide benefits to teachers and students. Articulate Storyline has the advantage that the media can be easily used, its use can be distributed to a variety of e-learning platforms today, can be used without limits of space and time because of the format of the HTML5 link, this media can make students enthusiastic in learning because it is very interesting and not boring. In this media already contains a combination of various kinds of images, videos, texts and voices, the media Articulate Storyline can also be used to work issues or quizzes. However, the medium Articulates Storylines also has a weakness that when accessing the HTML5 link must be connected to the Internet network, besides its disadvantage when using the media teachers can't see whoever is using it.

The results of the research may be difficult to generalize widely because they focus on specific schools and may not represent the entire school population in a particular country or region. Budget and other resource constraints may have affected study design and sample size, as well as the ability to carry out in-depth and thorough analysis. Therefore, the study recommends the use of interactive media as a learning medium to improve students' learning outcomes in learning dance art in classrooms and other schools. It can even be developed for additional lessons to improve students' learning outcomes in learning.

4. CONCLUSION

The research is based on a need analysis submitted by teachers and students of the fourth grade at SDN Pancurendang 02, Banyumas District, Central Java which shows the need for educational media to increase students' interest and learning outcomes in learning the dance art of motion material on traditional engklek games. In addition, the N-Gain test results showed a score of 0.69, which indicates that the use of interactive media Articulate Storyline significantly increased students' interest and learning outcomes in learning the dance arts.

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