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DEVELOPMENT OF INTERACTIVE LEARNING MEDIA USING ARTICULATE STORYLINE 3 TO FOSTER STUDENTS' DIGITAL LITERACY SKILLS

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ABSTRACT

This research is motivated by the use of digital technology in learning that has not been running optimally. The learning process is still dominated by the use of printed books, worksheets, and lecture methods so that students are not used to using digital devices as a means of learning. This condition causes students' digital literacy skills to not develop optimally. Therefore, interactive learning media is needed that can support the learning process while helping to grow students' digital literacy skills. This study aims to describe the development process and feasibility of interactive learning media using Articulate Storyline 3 and to determine the contribution of learning media in fostering digital literacy skills of grade IV students of Elementary School 02 Samar Pagerwojo. The type of research used is Research and Development (R&D) with the ADDIE development model consisting of Analyze, Design, Development, Implementation, and Evaluation stages. The subjects of this study were 11 students in grade IV of Elementary School 02 Samar Pagerwojo. Data collection techniques are carried out through observation, interviews, questionnaires, and tests. The research data was analyzed using qualitative and quantitative analysis techniques. The results showed that interactive learning media using Articulate Storyline 3 obtained an average validation result of 96.9% with the category "Very Valid". In addition, the learning media obtained a practicality result of 94% and a digital literacy test result of 86% with the category of "Very Good". Based on these results, learning media is declared feasible, practical, and effective to be used in Natural and Social Sciences learning and can help grow students' digital literacy skills.

Keywords: interactive learning media, Articulate Storyline 3, digital literacy, Natural and Social Sciences subjects, primary school

INTRODUCTION

The development of digital technology in the world of education requires a more interactive learning process that is in accordance with the needs of students in the digital era. At the elementary school level, the use of technology in learning not only functions as a means of delivering material, but can also help students recognize and utilize digital devices more positively in learning activities. (Said et al., 2023) However, based on the results of observations and interviews conducted in grade IV of Elementary School 02 Samar Pagerwojo, the learning process is still dominated by the use of printed books, and lecture methods. The use of digital devices in learning has also not run optimally so that students are not used to using technology as a means of learning.

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This condition causes students' digital literacy skills to still need to be developed. Paul Gilster defines digital literacy as the ability of individuals to understand and use information sourced from various digital media effectively and critically. (Syafrial, 2023) Digital literacy is one of the important skills that students need to possess because it is related to the ability to understand, access, and utilize digital information appropriately in learning activities. (Martin, 2006) One of the efforts that can be made to support the growth of digital literacy skills is through the use of interactive learning media. Interactive learning media can help create a more interesting learning atmosphere because students can be directly involved during the learning process.

One of the applications that can be used to develop interactive learning media is Articulate Storyline 3. The app allows developers to combine text, images, audio, video, animations, quizzes, and interactive navigation in a single learning medium. The use of interactive learning media is considered to be able to help students be more active and enthusiastic during learning. In addition, digital-based learning media can also help students get used to using digital devices more wisely and productively in learning activities.

Several previous studies such as research conducted by Nurul Aanisah stated that interactive learning media can increase the activeness and motivation of elementary school students. (Aanisah & Istianah, 2025) However, research that discusses the contribution of interactive learning media to the digital literacy skills of elementary school students is still limited. Most studies focus more on learning outcomes or learners' learning motivation. Therefore, this research is focused on the development of interactive learning media using Articulate Storyline 3 to help grow the digital literacy skills of grade IV students of Elementary School 02 Samar Pagerwojo.

This study aims to describe the development process and feasibility of interactive learning media using Articulate Storyline 3 and to determine the contribution of learning media to the digital literacy ability of grade IV students of Elementary School 02 Samar Pagerwojo.

METHODS

This research uses the type of Research and Development (R&D) research with the ADDIE development model which consists of five stages, namely Analyze, Design, Development, Implementation, and Evaluation. The ADDIE model is used because it has systematic stages in the development of learning media so that it can be adjusted to the needs of students and the learning process in elementary schools.

The research was carried out in grade IV of Elementary School 02 Samar Pagerwojo with 11 research subjects. This research is focused on the development of interactive learning media using Articulate Storyline 3 in the subject of Natural and Social Sciences weather, seasonal, and climate materials.

The data collection techniques used include observation, interviews, questionnaires, and tests. Observations and interviews were carried out to find out the learning conditions and needs of students during the learning process. The questionnaire was used to obtain validation data from media experts, material experts, and linguists as well as to find out students' responses to the developed learning media.

Meanwhile, the test is used to determine students' digital literacy skills after using interactive learning media.

The research instruments used include observation sheets, interview guidelines, expert validation sheets, student response questionnaires, and digital literacy tests. The research data was analyzed using qualitative and quantitative data analysis techniques. Qualitative data was obtained from validators' suggestions and inputs on the developed learning media, while quantitative data was analyzed using percentage calculations to determine the level of feasibility, practicality, and effectiveness of learning media.

RESULTS AND DISCUSSION

1. Learning Media Development

   A. Analyze

   The analyze stage is carried out to find out the learning conditions and needs of students in the Natural and Social Sciences learning process in grade IV of Elementary School 02 Samar Pagerwojo. At this stage, the researcher conducted observations and interviews with grade IV teachers. Based on the results of observations, the learning process is still dominated by the use of printed books, worksheets, and lecture methods so that students tend to be less active during learning. In addition, the use of digital devices in learning has also not been utilized optimally.

   The results of the interview with Mr. Handrik, a teacher of grade IV of Elementary School 02 Samar:

   > *"During classroom learning, I still use package books, printed books and direct explanations or lectures as the main source of learning. The use of learning media using digital devices has also not been used optimally in learning."*

   It shows that actually learners are more interested in learning that uses images, animations, and media that can be operated directly. The teacher also said that the use of interactive learning media is still rarely used in learning Natural and Social Sciences due to the limited media available in schools. These findings show that more interactive learning media is needed to help create a more interesting learning atmosphere while supporting students' digital literacy skills.

   The findings of this study are in line with research conducted by (Triana & Amini, 2023) which states that the use of interactive learning media can help increase student engagement during the learning process. In addition, the research (Resti et al., 2024) It also mentioned that the use of digital-based media can help students become more accustomed to using technology in learning activities.

   B. Design

   The design stage is carried out by designing learning media that is tailored to the characteristics of elementary school students. At this stage, the researcher compiles Natural and Social Sciences learning materials about weather, seasons, and climate and determines the media

appearance, navigation design, colors, images, animations, audio, and the type of evaluation used in learning media using the Canva application first and then it will be exported to the Articulate Storyline 3 application.

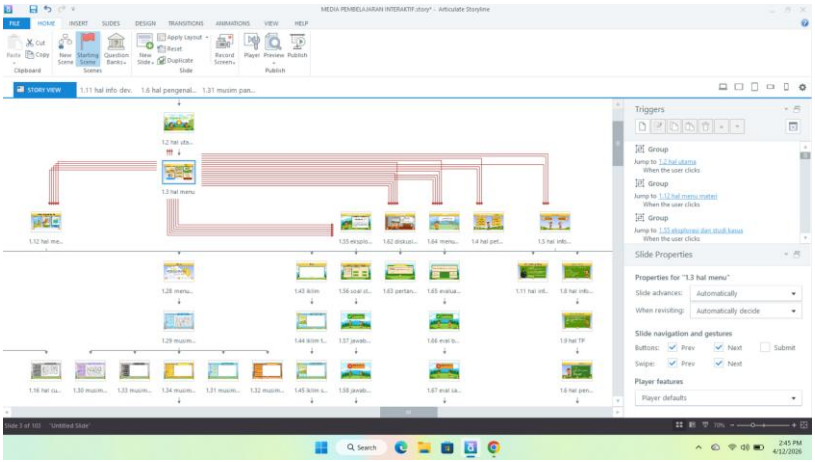


Picture 1. Media Design Process Using the Canva App

Learning media is designed using a simple and attractive appearance so that it is easy for students to use. In addition, the media is also equipped with interactive navigation buttons to help students operate the learning media independently. The design of interesting and interactive learning media is considered important to increase students' attention during the learning process (Karo-karo S & Rohani, 2018).

C. Development

The development stage is carried out by developing learning media using Articulate Storyline 3 according to the design that has been made previously. Learning media is developed by combining text, images, audio, video, animations, quizzes, and interactive buttons in one learning medium. The use of these various components aims to make students more active and interested during learning activities.



Picture 2. The development process using the Articulate Storyline 3 application

After the media is completed, a validation process is carried out by experts including; media experts, material experts, and linguists to find out the level of eligibility of learning media. The validation results from media experts obtained a percentage of 98.6% with the category "Very Valid". The assessment from the subject matter expert obtained a percentage of 96.6% with the

category "Very Valid", while the results of the validation of the linguist obtained a percentage of 95.5% with the category "Very Valid". Overall, the average media validation results obtained a percentage of 96.9% with the category "Very Valid".

Table 1. Expert Validation Results

No.	Validator	Percentage	Category
1.	Media Member	98,6%	Highly Valid
2.	Material Expert	96,6%	Highly Valid
3.	Linguist	95,5%	Highly Valid
	Average	96,9%	Highly Valid

The results of the validation show that the learning media developed has met the aspects of appearance, material content, language, and ease of use so that it is suitable for use in the learning of Natural and Social Sciences grade IV of Elementary School 02 Samar, Pagerwojo. These findings are supported by research (Haedar & Torro, 2024) which states that interactive learning media that is developed systematically can help improve the quality of student learning.

D. Implementation

The implementation stage was carried out by applying interactive learning media to grade IV students of Elementary School 02 Samar Pagerwojo. At this stage, students use learning media directly in Natural and Social Sciences learning activities on weather, seasonal, and climate materials. During the learning process, students looked more active and enthusiastic than learning that only used printed books and lecture methods.

Based on the results of observations during the lesson, students showed interest in the display of media, animations, and interactive quizzes contained in the learning media. In addition, students also seem to be more courageous to try to operate learning media independently. This condition shows that the use of interactive learning media can help create a more interesting and active learning atmosphere.

E. Evaluation

The evaluation stage is carried out through the improvement of learning media based on suggestions and input from validators and the results of learning implementation. Some of the suggestions given include improving the size of the writing, adjusting the display color, and adding instructions for the use of media to make it easier for students to understand. The improvements are made so that the learning media developed can be used better according to the needs of learning in elementary schools.

Based on all the stages of development that have been carried out, interactive learning media using Articulate Storyline 3 is declared suitable for use in the learning of Natural and Social Sciences grade IV elementary school. The development of learning media through the ADDIE model helps the media development process to be carried out in a more structured and directed manner according to the needs of students.

2. Contribution of Learning Media

A. Practicality of Learning Media

The practicality of learning media is known through the results of student response questionnaires after using interactive learning media. The results of the questionnaire showed a percentage of 94% with the category "Very Practical". These results show that learning media is easy to use, interesting, and helps students understand learning materials better.

Table 2. Student Response Results

No.	Aspek Penilaian	Score
1.	Media Design	30
2.	Ease of Use	30
3.	Interest in Learning	22
4.	Media Benefits	21
	Total Score	**103**
	Maximum Score	**110**

$$P = \frac{f}{N} \; X \; 100\%$$

$$P = \frac{103}{110} \; X \; 100\% = 94\%$$

Criteria	**Very Practical**

Based on Table 2, the results of the students' responses obtained a percentage of 94% with the category "Very Practical". These results show that interactive learning media using Articulate Storyline 3 is easy to use, interesting, and helps students in following the Natural and Social Sciences learning process. Students also look more active and enthusiastic during learning.

Based on the results of observations during the lesson, students look more active and enthusiastic when using interactive learning media. Students also show higher curiosity when trying features in learning media. This condition shows that interactive learning media can help increase student involvement during the learning process.

The results of this study are in line with the research (Rahayu et al., 2023) which states that interactive learning media is able to help increase the motivation and participation of natural and social sciences of students during learning activities.

B. The Effectiveness of Learning Media

The effectiveness of learning media is known through the results of students' digital literacy tests after using interactive learning media. The test results showed a percentage of 86% with the category "Excellent". These results show that the use of interactive learning media can help students get used to using digital devices as a means of learning.

Table 3. Student Digital Literacy Test Result

No.	Name (Initial)	Score
1.	AKN	100
2.	AHZ	100
3.	AFAB	80
4.	ADS	100
5.	AR	80
6.	ADP	70
7.	BKA	100
8.	CA	100
9.	RAP	80
10.	RDS	40
11.	CAW	100
	Total Skor	**950**
	Maximum Score	**1100**

$$P = \frac{f}{N} \; X \; 100\%$$

$$P = \frac{950}{1100} \; X \; 100\% = \; 86\%$$

Criteria	**Very Good**

During the learning process, students not only receive learning materials, but also learn to use digital media to understand the information presented in the learning media. Students are seen to be more active in operating the media, understanding the instructions for use, and completing interactive quizzes contained in the learning media.

The findings of this study show that interactive learning media using Articulate Storyline 3 not only helps the process of delivering learning materials, but also contributes to the growth of digital literacy skills of elementary school students. The results of this study are supported by research (Mega Safitri & Sylvia Dewi, 2025) which states that the use of digital-based learning media can help students use and utilize technology properly and in an integrated manner in learning activities.

CONCLUSION

This research produced interactive learning media using Articulate Storyline 3 in the subject of Natural and Social Sciences on weather, seasonal, and climate materials grade IV of Elementary School 02 Samar Pagerwojo through the ADDIE development model which consists of the analyze, design, development, implementation, and evaluation stages. The validation results from media experts, material experts, and linguists obtained an average percentage of 96.9% with the category "Very Valid", so that learning media is declared suitable for use in the learning process.

The use of interactive learning media using Articulate Storyline 3 also contributes to the learning process and digital literacy skills of students. The results of the students' responses obtained a percentage of 94% with the category "Very Practical", while the results of the digital literacy test obtained a percentage of 86% with the category "Very Good". These results show that interactive learning media can help create a more interesting, active learning process, and support the growth of digital literacy skills of elementary school students.

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