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DEVELOPMENT OF INTERACTIVE MULTIMEDIA BASED ON ISPRING SUITE 9 IN THEMATIC LEARNING IN BASIC EDUCATION

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ABSTRACT

This research aims to develop interactive multimedia learning media based on iSpring Suite 9 in thematic learning in class III at SDN Kalideres 12 Pagi. This research uses the Borg and Gall development model. Research subjects in class III of SDN Kalideres 12 Pagi with 32 students. The objectives in developing this media include: 1) to produce interactive multimedia learning media based on Ispring Suite 9 in class III thematic learning, 2) to determine the level of feasibility of interactive multimedia learning in class III thematic learning, and 3) to determine the effectiveness of interactive multimedia learning on the learning outcomes of class III. The results of this research are products in the form of interactive multimedia based on iSpring Suite 9 with validation results from media design experts of 90.27%, material experts of 96.25% in the "very feasible" category, and positive response results in students with a percentage of 93%. Student learning outcomes through the pre-test and post-test showed an increase where the average post-test score was 88.1, higher than the pre-test average score of only 68.1, with an N-gain of 0.63 which is included in the medium categories. Based on these data, it can be concluded that interactive multimedia learning media based on Ispring Suite 9 is feasible and effective for use in class III thematic learning at SDN Kalideres 12 Pagi.

Keywords: Learning media, interactive multimedia, thematic, iSpring suite 9

INTRODUCTION

The learning process of elementary school-age children still relies on concrete objects and direct experience. This is by children's psychological development, namely at the concrete operational stage (Suhartono & Idawati, 2021). So, learning at the elementary school level should not separate each lesson content to provide a natural, meaningful learning experience as a holistic unit. Referring to the curriculum currently in use, namely the 2013 curriculum which focuses on simplifying curriculum content and implementing thematic-integrative based learning.

Thematic learning is a learning approach that integrates or combines several subjects in the form of themes to produce meaningful learning (Asriadi, 2022). Thematic learning has the characteristics of student-centered learning, which involves students actively, and is fun and challenging so that learning is meaningful for students. Even though learning is student-centered, the role of the teacher is very important and should not be sidelined. Teachers must be able to design learning in the classroom

effectively so that learning objectives can be achieved easily, one of which is by providing a comfortable and enjoyable learning atmosphere (Suhartono & Idawati, 2021).

The growing knowledge and technology encourage renewal efforts from technology in the field of education. Through developing technology, teachers can utilize it to provide learning content with various media according to the needs and goals to be achieved. Using media, helps teachers facilitate the delivery of material and makes teaching and learning activities more varied. The development of technology, information, and communication has affected the characteristics and views of learners towards learning. The characteristics of learners like learning that is done while playing and are enthusiastic about something in the form of audio-visual.

Based on the results of observations in class 3, several problems were found, namely, in distance learning the teacher only explained the material narratively and provided videos of the material from YouTube, sometimes the learning videos were inadequate and seemed boring. Likewise in school learning, teachers use learning tools in the form of whiteboards, and markers, and sometimes use presentation media (Powerpoint), as well as teaching aids. According to the teacher's explanation and observation in the class, the problem was that there were still students who had difficulty understanding the lesson material. Students who experience difficulties in this regard are required to pursue the subject matter to complete the material on time and get a final grade per the KKM (Minimum Completeness Criteria). Of course, this has an impact on the final results or evaluation scores that the teacher gives. The thing that causes students to have difficulty understanding learning material is that the choice of learning media is monotonous. This monotonous learning media should be able to be innovated along with developments in technology and communication, but teachers as facilitators of learning media have limitations in carrying out development.

Based on the problems above, researchers plan to develop interactive multimedia-based learning media for thematic learning. The researchers carried out this development to help teachers make learning more enjoyable, increase learning

motivation, help students understand the subject matter more easily, and not get bored easily, and improve learning outcomes and thinking abilities. The media developed is interactive multimedia-based learning media developed using PowerPoint and iSpring Suite 9. This interactive media development uses software that is integrated with Microsoft PowerPoint, namely iSpring Suite 9. ISpring Suite 9 is a software application that presents several features for making PowerPoint into interactive media (Lestari, 2020).

LITERATURE REVIEW

This media development takes into account developments in technology, information, and communication in the millennial era which have influenced the characteristics and perspectives of students towards learning. Today's students prefer learning done while playing and are enthusiastic about something in audio-visual form. In line with Pratama, Kaspul, and Arsyad (2020) opinion, Interactive learning media is a digital product on an information system that contains audio-visual content that can respond to user actions. Interactive multimedia combines several media elements such as images, audio, text, and others into a single unit that can present information in interactive communication (Aulia & Masniladevi, 2021). Learning with interactive media makes learning more fun and interests students (Dilson et al., 2022). The use of learning media can also increase student scores because packaging the media according to the material and the needs of students so that it is easy to understand makes it easier for students to reach the KKM score (Ritonga & Nursyafitri, 2022). This is because animations in interactive multimedia can present things that are invisible and difficult to imagine, with interactive multimedia research showing that learning with interactive multimedia is better than other media. (Nasution & Prastowo, 2021).

According to (Juraev, 2019), ISpring Suite 9 is one of the software that is ranked high for software used in the field of education. iSpring Suite is a computer program that is easy and practical to use to design interactive learning content (Batubara, 2021). Previous research states that the learning media produced by iSpring

Suite 9 can be used by students to learn anywhere and anytime because it can be accessed online or offline so online or offline learning can be effective (Dilson et al., 2022). The results of research conducted by (Dilson et al., 2022) where the test results of this interactive learning media were declared successful and valid (no errors). 7 students stated that the learning media was interesting and could be used for learning anywhere and anytime, and also six (6) teachers stated that the learning media was suitable for use in the online and offline learning process.

Another research conducted by (Alfia, 2021) results of testing interactive learning media based on the iSpring suite show that this media is worthy of development, with the percentage of media experts reaching 93.42% which indicates the "Very Good" category, the percentage of material experts at 80% with the category "Very Good", and the percentage results from product trials on students, namely 89.59%, show that students can receive this media well and this media improves student learning outcomes. These results state that iSpring Suite-based learning media is said to be worthy of development because it helps teachers focus students during the learning process so that learning is well received by students. Other research regarding the effectiveness of using interactive media (Trisman, 2020) shows that the cheerful interactive multimedia developed makes it easier for students to understand the material and improves learning outcomes with 92.3% completeness in the "very effective" category.

Previous research conducted by Sari and Ridwan (2020) obtained a student score percentage of 90%, which shows that students are motivated to learn. The percentage score from teachers reached 95%, indicating that multimedia helps teachers in teaching. The research results show that interactive multimedia using the iSpring Suite 9 application in science subjects can improve students' understanding. Other research was also carried out by (Julianti & Arwin, 2021), with the title "Developing Android-Based Learning Media Using Powerpoint Ispring Suite 9 in Integrated Thematic Learning for Class IV Elementary Schools." The results of the development of the learning media obtained an average level of validity in the valid category.

Meanwhile, the results of the teacher and 26 student response questionnaires obtained a very practical level of practicality, with the results of the teacher response questionnaire obtaining a practicality percentage of 100% and the results of the student response questionnaire obtaining a practicality percentage of 94.87%. The research above has similarities with what the researchers studied, namely developing interactive media based on the iSpring Suite for learning in elementary schools. Difference located on the research subject; In this research and development, researchers examine media development in thematic learning in class III.

METHODOLOGY

The type of research used in this research is research and development. Research and development methods are research methods used to produce a particular product which is needed to test the effectiveness of the product (Sugiyono, 2019)Researchers use the Borg & Gall development research model. This research model is used to provide answers to questions regarding practical problems. The research and development steps are: 1) Potential Problems; 2) Data collection; 3) Product design; 4) Design Validation, 5) Design Revision; and 6) Trial. Research and development stages are adjusted to the research needs themselves.

This research was conducted in October - November 2023 in class 3 of SDN Kalideres 12 Pagi. The subject of this research was class 3 with 32 students. This research was validated and tested to see and obtain results on the feasibility and effectiveness of using interactive multimedia in learning. The results of the feasibility of interactive multimedia were obtained from validation by media design experts, material experts, and student response questionnaires to interactive multimedia based on the iSpring Suite. The results of the effectiveness of interactive multimedia were obtained from the results of the pre-test and post-test conducted on 32 students. Validating this product has the aim of being able to obtain data in the form of assessments, comments, and validator suggestions for the learning media created to know whether the product created by the researcher is suitable or not.

The following is an expert validation instrument for interactive multimedia based on ISPRING Suite 9:

a. Material expert validation instrument

Table 1Grid of material expert validation instruments

No.	Assessment Indicators	Number of Items
Material/Content Aspects		
1	Conformity with Basic Competencies (KD) with Indicators	1
2	Suitability of material to learning objectives	1
3	Accuracy and scope of material presentation	2
4	The consistency of the material presented	1
5	Availability of practice questions (interactive quizzes)	1
6	Suitability of material to student characteristics	1
7	Suitability of material to material	1
8	Clarity of instructions for practice questions (Interactive Quiz)	1
Display Aspects		
9	Clarity of multimedia titles	1
10	Clarity of instructions for using multimedia	1
11	Structure and sequence of material content	1
12	Clarity of the language used	1
13	Suitability and quality of images/illustrations	2
14	Clarity of font type choices	1
15	The icon/navigator layout is appropriate and not confusing	1
16	The attractiveness of learning media	1
Ease of Use Aspect		
17	Ease of operation of learning media	1
18	Media increases students' interest in learning and attention	1
	Amount	20

b. Media design expert validation instrument

Table 2Grid of media design expert validation instruments

No.	Assessment Indicators	Number of Items
Display Aspects		
1	Suitability of media to student characteristics	1
2	Background display design and color proportions	2
3	Appropriate selection of font type and size	2

4	Appropriate selection of background music	2
5	*botton/ navigator* layout	1
6	The attractiveness of multimedia design	1
7	Quality of image/illustration/animation display	2
8	Video display quality	1
Aspects of Use and Presentation		
9	Clarity of instructions for using multimedia	1
10	Ease of use navigation	1
11	Flexibility in using multimedia	1
12	Ease of interacting with multimedia	1
13	Ease of running multimedia	1
14	*Botton* function speed	1
	Amount	18

c. Student response questionnaire

Table 3Student response questionnaire

No.	Assessment Indicators	Number of Items
1	This learning media is interesting to use	1
2	This learning media makes it easier to understand the material	1
3	The material is presented sequentially	1
4	The practice questions presented are by the material	1
5	The title of the learning media appears clear	1
6	The icon instructions in this media are clear and easy to understand	1
7	The text and writing presented are clear and easy to read.	1
8	The language used by this media is clear, coherent, and easy to understand	1
9	The images, illustrations, backgrounds, and videos presented are appropriate and not excessive	1
10	The images, illustrations, backgrounds, and videos displayed are not blurry	1
11	The sound in the media sounds clear and clear	1
12	I enjoy learning using this learning media	1
	Amount	12

The stages of this research are as follows: 1) Potential and problems, this stage was carried out by researchers to collect information on problems and needs that exist in thematic learning in class III at SDN Kalideres 12 Pagi. After obtaining information about the problem, it will be analyzed to find potential for solving the problem, 2)

Data collection, this stage collects all supporting data to be used in developing media such as data obtained from interviews with teachers, books, previous research journals, development support software, and other reference sources. 3) Product design, at this stage the researcher prepares a media design and starts making the initial product. 4) Product validation, this validation stage is to obtain assessments and suggestions regarding media, so that the quality and suitability of the product being developed can be known. 5) Product Revision, This design revision stage is the necessary improvements based on suggestions and input from validator experts. 6) Product testing, this stage was carried out in 2 stages, small group trials of 10 people and field trials, namely class III students with a total of 22 students. At the trial stage, the media is used directly in thematic learning according to the material.

Techniques in this research and development are: 1) Interviews, and data collection techniques employing direct dialogue or with certain media. Interviews were conducted with class teachers as resource persons, 2) Questionnaires, which are research instruments for measuring, collecting, and recording data and information in casual relationships (Arifin, 2016), 3) Tests were chosen as the instrument in this research because it is used to collect data on student learning outcomes, and 4) Documentation, a way to obtain data that has been documented. The data analysis technique in this research uses two techniques, namely qualitative data analysis. This data comes from the results of instruments in the form of explanations, responses, criticism, and suggestions for improvement by class teachers, material or field of study experts, media design, and class III students. The data processing will be structured in a meaningful descriptive manner so that general conclusions can be obtained. And quantitative data analysis, which comes from scores obtained from the results of expert validation and product trials. This research uses a Likert scale in the form of a checklist. The Likert scale is usually used to measure someone's opinion about a phenomenon or event (Sugiyono, 2019) . The following is the formula and interval for the score criteria.

$$\text{Percentage} = \frac{\sum x}{\sum x_1} \times 100\ \%$$

Information :

P = Validity/feasibility level

$\sum x$ = Number of selected answers

$\sum x_1$ = Highest number of answers

Table 4score intervals

Score percentage (%)	Category	Qualitative Assessment
85 – 100	Very decent, no revision needed	A
65 – 84	Decent, needs revision	B
25 – 64	Decent enough, needs a lot of revision	C
<25	Not suitable for use	D

RESULTS AND DISCUSSION

RESULT

Development of interactive multimedia in thematic learning using Microsoft PowerPoint which is integrated with the Ispring suite. This interactive media has an HTML5 format, this is a publication provided by the Ispring suite application. This interactive media is designed to be accessible offline, so the size of the resulting media is quite large. The size of the resulting interactive media was 81 MB before revision. And the size after revision is 82 MB. Content in interactive media can be viewed and played directly without opening a site link on the internet so it does not require a quota or internet network.

The material contained in this media is theme 3, sub-theme 4 which includes 4 lessons with different themes such as the first lesson on making salt, the second lesson on making cotton candy, the third lesson on global warming, and the fourth lesson on the process of rain. The subject content contained in each lesson includes Bahasa Indonesia, PPKn, IPA, and Mathematics. The final description of this product is 1) Riffic Free Medium, Arial Rounded MT Bold, and Cooper Black typefaces, 2) HTML5 final format, 3) Material for themes 3 subthemes 4 grade 3 elementary school, 4)

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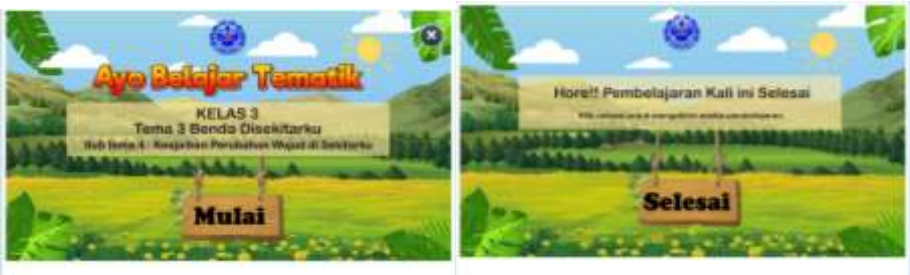
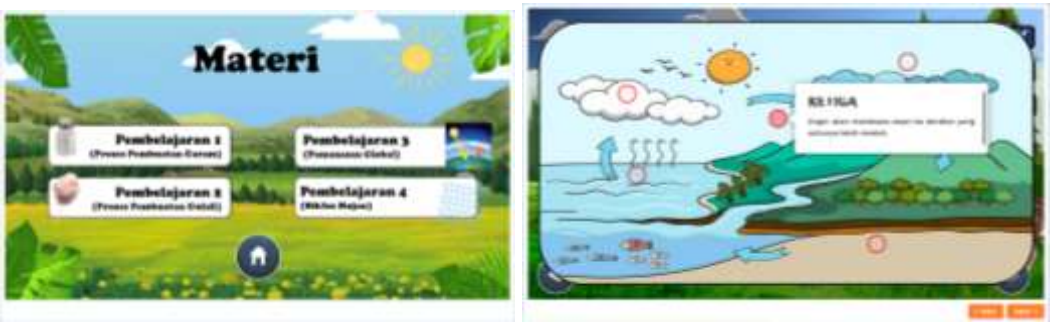
software requirements: Microsoft Powerpoint, *Ispring suite 9,* canvas, free pick, and youtube.



Picture 1Front and back cover



Picture 2contains interactive multimedia

DISCUSSION

Feasibility of Interactive Multimedia Based on iSpring Suite 9

The feasibility of learning media is determined through the expert validation stage and student responses to the media. The data collection instrument uses a multimedia assessment questionnaire which is assessed using a Likert Scale. The assessment questionnaire is prepared in the form of a statement followed by 4 (four) response value scales, namely (1) meaning poor, (2) sufficient, (3) good, and (4) very good. The results from the validation of media design experts, material experts, and student response questionnaires are as follows.

No	Validator	Score Percentage	Category
1	Media Design Expert	90.27 %	Very Worth It
2	Materials Expert	96.25%	Very Worth It
3	Student	93%	Very Worth It
	Average	**93%**	**Very Worth It**

Based on data, the results obtained from media design experts were 90.27 % , material experts were 96.25%, and results from student responses were 93%. With these results, interactive multimedia based on Ispring Suite 9 in class III thematic learning is included in the "very suitable" category for use as learning media.

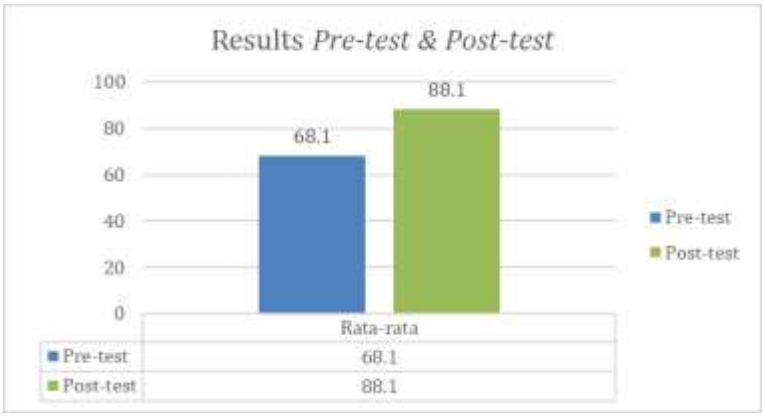
Effectiveness of Interactive Multimedia Based on the Ispring suite

The effectiveness of interactive multimedia based on the Ispring suite is obtained from student learning outcomes assessed through pre-test and post-test. The pre-test and post-test contain 15 multiple-choice questions. The results of the pretest and posttest are also used to show the effectiveness of interactive multimedia based on the ISPRING Suite on student learning outcomes. After the learning result data is collected, it is continued with analysis using the formula calculation:

$$\text{N} - \text{Gain} = \frac{Skor\ Posttest - Skor\ Pretest}{Skor\ Ideal - Skor\ Pretest}$$

The following are the results of the pre-tets and post-tets of class III students with material on theme 3 subthemes 4.

Chart 1 Results Pre-test and Post-test



Based on the test results above, it can be seen that the average learning outcome before using interactive multimedia based on Ispring Suite was only 68.1 and increased to 88.1 after using the media. This proves that there is an increase with an N-gain of 0.63 which is included in the medium category. This also shows that interactive multimedia based on the SPRING suite is effective for use in class III thematic learning.

CONCLUSION

The feasibility of interactive multimedia based on ISPRING Suite 9 is demonstrated from the validation results of media design experts, material experts, and student response questionnaires. The validation results by media design experts obtained 90.27% with category A, namely very suitable for use without revision, the validation results by material experts obtained 96.25% with category A or very suitable for use without revision, and the results of students' response to the media were very positive. 93% with criteria suitable for use. Effectiveness can be seen from the comparison of student learning outcomes before and after using this learning media in learning. Student learning outcomes were obtained from the pre-test and post-test of class III students. Learning outcome data through the N-gain normality test obtained an average of 0.63 . These results show that the level of achievement of Ispring Suite-based interactive multimedia is at moderate qualifications or is quite effective in improving students' cognitive learning outcomes. Based on this, it can be concluded that interactive multimedia based on ISPRING Suite 9 is declared feasible and effective for use as a reference for learning media in elementary schools.

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