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Development of Powerpoint-Based Interactive Media on Theme 8 Subtheme 1 in Elementary School

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ABSTRAK

Penggunaan media dalam pembelajaran di sekolah dasar merupakan bagian penting yang harus mendapat perhatian dari para pendidik. Penggunaan media interaktif sangat dibutuhkan oleh sekolah dasar agar pembelajaran yang diberikan menjadi lebih efektif dan efisien. Penelitian ini bertujuan untuk mengembangkan media interaktif berbasis powerpoint tema 8 subtema 1 di kelas III SD selama kegiatan pembelajaran offline. Penelitian ini merupakan penelitian pengembangan dan menggunakan model ADDIE. Jenis data yang diambil dari pengembangan ini adalah data kualitatif dan data kuantitatif. Populasi dalam penelitian ini adalah siswa kelas III. Uji coba yang dilakukan adalah uji coba skala terbatas dengan sampel 6 siswa dengan kategori skor belajar yang berbeda. Teknik pengumpulan data terdiri dari dua jenis, yaitu pertama angket respon guru dan siswa, kedua lembar validasi ahli materi, ahli media dan ahli bahasa. Berdasarkan hasil penelitian ahli media dengan total 93,33%, ahli materi dengan total 90,83% dan ahli bahasa dengan total 90,94% dan hasil keseluruhan 91,1% menyimpulkan sangat valid untuk digunakan sebagai bahan penelitian media pembelajaran. Hasil analisis tanggapan guru dengan total 94% dan siswa dengan total 88,33% dan total hasil 91,16% menyimpulkan bahwa media praktikum digunakan dalam kegiatan proses pembelajaran berlangsung.

ABSTRACT

The use of media in learning in elementary schools is an important part that must receive attention from educators. The use of interactive media is needed by elementary schools so that the learning provided becomes more effective and efficient. This study aims to develop interactive media based on powerpoint on the theme of 8 sub-theme 1 in class III of elementary school during offline learning activities. This research is a development research and uses the ADDIE model. The types of data taken from this development are qualitative data and quantitative data. The population of this research is third grade students. The trial conducted was a limited-scale trial with a sample of 6 students with different learning score categories. Data collection techniques consist of two types, namely the first teacher and student response questionnaire, second validation sheet material experts, media experts and linguists. Based on the results of research from media experts with a total of 93.33%, material experts with a total of 90.83% and linguists with a total of 90.94% and the overall results of 91.1% concluded that it is very valid to be used as a learning medium. The results of the analysis of teacher responses with a total of 94% and students with a total of 88.33% and the total results of 91.16% concluded that practical media were used in the learning process activities took place.

1. INTRODUCTION

Education is a person's effort to increase the potential that exists in him and occurs inside and outside educational institutions (Baharun, 2017; Garba et al., 2015). Based on Law Number 20 of 2003 concerning the National Education System, it defines curriculum as a set of plans and arrangements for objectives, content, and learning materials to achieve certain goals (Ahmad Agung Yuwono Putro et al., 2017; Hanik, 2020; Rosidin et al., 2019). From this understanding there are two dimensions of the curriculum, the first is the plan and arrangement of the objectives, content and learning materials and the second is the method used for the 2013 curriculum learning activities that are currently being used (Loudon, 2019; Nurtanto et al., 2021; Widodo, 2019). The 2013 curriculum demands that students be

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given the freedom to think, understand problems, develop problem-solving strategies, and present their ideas freely and openly when providing education (Mithen et al., 2021; Ramadoni et al., 2019; Sari et al., 2019). The 2013 curriculum makes thematic learning the main guide in the learning process in elementary school units.

Elementary schools make thematic learning one of the subjects that must be taught starting from grade 1 to grade 6 (Margunayasa et al., 2019; Mohamad et al., 2020; Murniyetti et al., 2016). Thematic subjects themselves are an integrated learning model with learner-centered characteristics that do not separate subjects from one another (Ulfah, 2019; Wardani & Syofyan, 2018; Yunita & Kristiyanto, 2021). In the learning process, educators usually use instructional media as a supporting tool. The development of technology in the world of education makes education more colourful (Anggraeni et al., 2019; Jamaludin & Hung, 2017; Saptono et al., 2021). The level of understanding and activeness of students can be assessed from the quality of teaching and learning media chosen by an educator, the media is in the form of supporting devices that can assist educators in delivering the material they teach (Moradi & Chen, 2019; I. A. Nugroho & Surjono, 2019; Renes & Strange, 2010). The use of media in learning in elementary schools is an important part that must receive attention from educators (Djannah et al., 2021; Prastika & Masniladevi, 2021; Rahayu et al., 2021). Seeing advances in technology and communication in the field of education, providing benefits for educators in developing learning media, many schools have provided learning media to support educators in teaching activities and to overcome problems or obstacles that exist in learning activities (Gelen Assoc, 2018; Suryani et al., 2020; Yunita & Kristiyanto, 2021).

Learning activities in the 2021/2022 academic year are experiencing problems in terms of holding face-to-face learning, this is because the world is being hit by the Covid-19 pandemic crisis, causing learning to be carried out offline and online (Handarini & Wulandari, 2020; Kundu & Bej, 2021; Puspitasari, 2020). There are obstacles/difficulties in the implementation of online and offline learning in terms of human resources and infrastructure (Efriana, 2021; Putri et al., 2020; Rahmah et al., 2019). Limited network access, lack of awareness and interest are the main challenges faced by educators (Alenezi, 2020; Yuzulia, 2021). This is thought to be one of the causes of the inhibition of students' creativity and independence, thereby reducing thematic learning achievement. In addition, it is a problem for teachers to choose teaching methods and media that do not attract students' attention in learning (Cengiz et al., 2011; Qekaj-Thaqi & Thaqi, 2021; Rajendra & Sudana, 2017). This results in low student learning outcomes. The use of interactive media is needed by elementary schools so that the learning provided becomes more effective and efficient (Dewanti et al., 2021; I. A. Nugroho & Surjono, 2019; Saripudin et al., 2021). Interactive media is a type of multimedia display, formed with the aim of being able to provide information display and interaction processes for users (Khazaal, 2015; Saputri et al., 2018). Interactive media is a means or various physical tools used to facilitate communication between educators and a group of students in learning situations (Husnaini & Chen, 2019; Valverde-Berrocoso et al., 2021). Media as a component of the learning system has a different function from other components (Nasution et al., 2021). In other words, it is a component that contains learning messages that are conveyed to students. In the learning process, the media can function well if it is available individually or in groups. There are still many advantages of using interactive media to increase student motivation, and train students to be more independent in gaining knowledge (Rajendra & Sudana, 2017; Tiarasari et al., 2018).

It is in line with previous reaerch that state Microsoft Powerpoint is an application prepared by Microsoft for presentations to a limited audience (Adams Ogirima & Onyiyeche Emilia, 2018; Bahadur & Boodun, 2013; Shigli et al., 2016). This application is equipped with complete features and menus to make presentations as attractive as possible. The use of Microsoft PowerPoint in the classroom must use the support of tools such as laptops, LCD projectors and speakers. our presentation. The functions and uses of PowerPoint according to other previous research are firstly bringing more energy and visual impact, secondly adding to the personal video experience. Third, access more locations and more devices, third, make high-quality presentations with graphic views, fourth, organize and print your slides more effectively, and fifth, get work done faster (Bartsch & Cobern, 2003; Gambari et al., 2015; Hadiyanti & Widya, 2018). Therefore, researchers are interested in developing interactive powerpoint-based media because this media can help teachers maximize the use of existing facilities in schools which can then help teachers improve student learning outcomes on thematic subjects in class III at SDN 021 Kepau Jaya . The media that the researcher developed is interactive media based on powerpoint, a media tool that helps teachers in explaining learning materials, both oral and written materials, in this media contains material that can involve students in the process of using it so that students are interested and make students happy when the learning process takes place.

2. METHOD

The type of this research is development research with ADDIE model research design and using qualitative and quantitative approaches in data processing. The research design of the ADDIE model itself is a research design consisting of the analysis stage, design stage, development stage, implementation stage, and evaluation stage (Marji, 2020). In this study, it was only carried out until the implementation stage to see how the practicality of the media developed. The researcher chose this research design because it fits the research question and the purpose of this study. The population of this research is third grade students at SDN 021 Kepau Jaya, Siak Hulu District, Kampar Regency, Riau Province for the 2021/2022 academic year who have different characteristics. The trial conducted was a limited-scale trial with a sample of 6 students with categories of 2 students having low learning scores, 2 students having moderate learning scores, and 2 students having high learning scores.

The instruments used in this study were interview questionnaires, validity questionnaires and teacher and student response questionnaires. The interview questionnaire was used to find out the problems of teachers and students during online and offline learning. The validity questionnaire is a questionnaire that aims to assess and revise the developed media product, this validity questionnaire is filled out by 6 experts consisting of 2 media experts, 2 material experts and 2 linguists, from the suggestions of the six experts then The media will be revised according to the suggestions that have been given. The teacher and student response questionnaire aims to find out what is the practicality of the media that has been produced, to fill out the student response questionnaire a yes or no checklist system is used for statements that according to him are appropriate, this is due to assessing the condition of the characteristics of elementary school students. Data from the results of product feasibility measured using a Likert scale measurement. Using a Likert Scale, the variables will become dimensions, the dimensions will become sub-variables, the variables will be explained back into indicators that can be measured (Joshi et al., 2015).

3. RESULT AND DISCUSSION

Result of Study

The focus of this research is to develop and produce powerpoint-based interactive media in order to overcome the problems faced by teachers and students, the media created will be validated first by 6 experts, namely linguists, media experts and material experts. This study uses the ADDIE model which consists of:

Analysis stage

In this stage, the analytical step is to collect data and information related to problems in learning at SDN 021 Kepau Jaya. The stages of curriculum analysis and needs analysis, as for the analysis are devided into 1) Curriculum Analysis, curriculum analysis was conducted to determine the KI and KD used in the learning process in class III B at SDN 021 Kepau Jaya. Then include the material that will be loaded in powerpoint-based interactive media according to the material that will be taught by the teacher. The material contained in this research media is the theme of 8 scouts with subtheme 1 I am a member of the scouts in learning 1, 2 and 3 which consists of Indonesian language, PPKn, mathematics and SBdP subjects. 2.) Needs Analysis, the needs analysis was carried out aiming to find out what researchers needed to provide to find solutions to the problems faced by teachers and students, needs analysis was carried out through interviews with class III B teachers at SDN 021 Kepau Jaya and class III B students at SDN 021 Kepau Jaya. The problem or teacher needs in the learning process related to the media is that the media used is still conventional in the form of images, this of course makes the process of implementing learning passive and less attractive to students.

Design stage

Design is the design stage of interactive powerpoint-based media display which will be developed on the theme of 8 Scouts with subtheme 1 I am a scout member in learning 1, 2 and 3. At this stage, the design of the media is adjusted to the characteristics of students. Furthermore, the researchers determined the software used in making interactive media based on powerpoint, namely Microsoft PowerPoint. At this stage, the researcher makes an initial design of what will be conveyed to the media. Researchers began to collect slide backgrounds, character images, music background, videos that will be used and verify the material to be included in the powerpoint slides. Then proceed with the process of making powerpoint-based interactive media along with an overview of the design stage. Main menu page is show in Figure 1.

Figure 1. Menu Page

Base on Figure 1 the menu page is the opening part of interactive powerpoint-based media that contains the name of the school, class, theme name, sub-theme name, and the creator of the media. The sub-theme page is show in Figure 2.

Figure 2. Sub-theme page

Base on Figure 2. It show sub-theme page, it is part of the opening of powerpoint-based interactive media, in this section it contains lessons 1 to 3.

Development Stage

The development stage is the interactive media production stage that has been designed at the design stage and validation testing is carried out in the form of the feasibility of the learning media that will be developed. Researchers use Microsoft PowerPoint 2013 software in creating and running PowerPoint media. On the Material Validator. In the material expert validation this material expert validator was asked to conduct an assessment of the content aspect the interactive media product based on PowerPoint on theme 8 sub-theme 1 in learning 1,2 and 3. The results of the assessment of material aspects can be seen in Table 1.

Table 1. Material Validation Results

No.	Validator	Percentage %		Category	
		Validation 1	Validation 2	Validation 1	Validation 2
1.	Lamra Hairani, M.Pd	93,33%	-	Very Valid	-
2.	Sarmini, S.Pd	93,33%	-	Very Valid	-
Amount		**93,33%**	-	**Very Valid**	-

Table 1 is the results of the assessment in the aspect of learning materials that are loaded in interactive media products based on powerpoint on theme 8 sub-theme 1, the total percentage of validator 1 has a percentage of **93.33%** which is declared Very Valid and validator 2 gets a percentage of **93.33%** which is declared Very Valid with a total number of the two validators, namely **93.33%** which is

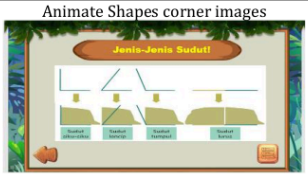
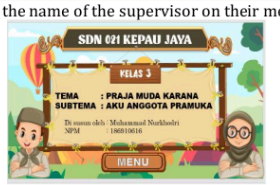
declared Very Valid and does not need to be revised and is worthy of a limited-scale trial. In the validation of linguists, this media expert validator was asked to evaluate the display aspect of powerpoint-based interactive media products on 8 sub-theme 1. The results of the media aspect assessment can be seen in Table 2.

Table 2. Media Validation Results

No.	Validator	Percentage %		Category	
		Validation 1	Validation 2	Validation 1	Validation 2
1.	Dr. Neni Hermita, S.Pd, M.Pd.	75,71%	91,66%	Valid	Very Valid
2.	Eddy Noviana, S.Pd.,M.Pd.	70%	90 %	Valid	Very Valid
Amount		**72,85%**	**90,83%**	**Valid**	**Very Valid**

Base on Table 2 in the validation section 1 is the result of the assessment in the aspect of display and programming of interactive media products based on powerpoint on theme 8 sub-theme 1, obtained the percentage of validator 1 has a percentage of 75.71% which is declared valid and validator 2 is obtained 70% which is declared valid with the total number of the two validators, namely 72.85% which is declared valid and needs to be revised again as for the revision suggestions given by the two validators are show in Table 3.

Table 3. Results of the Revised Validator

No	Before Revised	After Revised
1.	Animate Shapes corner images 	
2.	Add the name of the supervisor on their menu 	
3.	Backsound sound reduced volume	Backsound volume changed to medium

Based on Table 3, suggestions from the two validators, the researchers revised the animation movement that forms the corner image and added the name of the supervisor to the media maker, after the product was repaired, a second validation was carried out. On the validation of linguists the linguist validator was asked to conduct an assessment on aspects of language use in powerpoint-based interactive media products on 8 sub-themes 1. The results of the assessment of media aspects can be seen in Table 4.

Table 4. Language Validation Results

No.	Validator	Percentage %		Category	
		Validation 1	Validation 2	Validation 1	Validation 2
1.	Otang Kurniaman, M.Pd	68,88%	88,88%	Valid	very valid
2.	Bonni Safitri, S.Pd.	**77,77%**	93,33%	Valid	very valid
Amount		**73,33%**	90,94%	Valid	very valid

Table 4 in the first validation section is the result of the assessment in the use of language in powerpoint-based interactive media products on theme 8 sub-theme 1, the total percentage of validator 1

has a percentage of 68.88% which is declared valid and validator 2 is obtained 77.77% which is declared Valid with the total number of the two validators, namely 73.33% which is declared valid and needs to be revised again as for the revision suggestions given by the validator are show in Table 5.

Table 5. Results of the Revised Validator

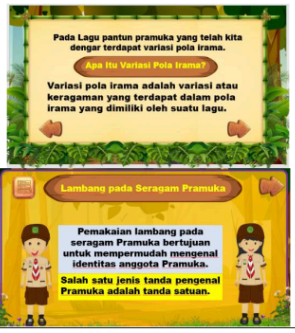
No	Before Revised	After Revised
1.	Use effective language that is easy for 3rd graders to understand 	

Table 5 show the suggestions from the two validators, the researchers revised the use of language used in media products that are useful for conveying material effectively at the level of understanding of third graders. Second validation section is the result of validation 2 by linguists on interactive media based on powerpoint on theme 8 sub-theme 1, the total percentage of validator 1 has a percentage of 88.88% which is declared Very Valid and validator 2 is obtained 93.33% which declared Very Valid with the total number of the two validators, namely 90.94% which was declared Very Valid and worthy of a limited scale trial. The validation results from all aspects obtained from 6 validators can be seen in Table 6.

Tabel 6. Data Recapitulation

Rated aspect	Presentase Validitas (%)	
	Validation I	Validation II
Material Format	93,33%	-
Media Formats	72,85%	90,83%
Language Format	73,33%	90,94%
Amount	**79,83%**	**90,88%**

Based on Table 6 show the expert team's assessment of all aspects of learning media by material experts, media experts, and linguists in the first validation and second validation, it can be presented in the Figure 3. Based on Figure 3, it can be concluded that there is an increase in the quality of the media produced after validation by experts, namely; material experts, media experts and linguists, the input and suggestions provided were very useful in order to produce valid media for use by teachers and third grade students in elementary schools.

Implementation Phase

At this implementation stage, a practical test was conducted for teachers and students to assess practical powerpoint-based interactive media to be used in the learning process. This practical activity is carried out by the teacher trying to use media that has been valid which is then displayed in front of 6 students of class III B of which the 6 people consist of 2 people with low scores, 2 people with medium scores and 2 more people with high scores. Then the teacher and students were asked to fill out the teacher and student response questionnaire sheets that had been prepared, while the purpose of the trial was to see and get data about the students' responses to the media that had been created, namely interactive powerpoint-based media on theme 8 sub-theme 1. The data on the results of student responses to the Practicality of Media Development from the limited-scale trials carried out can be seen in Table 7.

Table 7. Student Responses to Practicalities

No	Name	Amount	Attractiveness Score (%)	Category
1	Alvin Afriando	8	80%	Practical
2	Arya Prasetyo	9	90%	Very Practical
3	Intan Listiani	10	100%	Very Practical
4	Nova Avrianty	8	80%	Practical
5	Rifqi Al Hafidz	10	100%	Very Practical
6	Selvi Okta Salsabila	8	80%	Practical
Amount		**53**	**88,33%**	**Very Practical**

Table 7 shows the data obtained from the assessment results of 6 3rd grade students at SDN 021 Kepau Jaya, namely 3 students who gave very practical assessments, and 3 other students gave practical assessments. In a small-scale trial at SDN 021 Kepau Jaya with a total score of 53 for each statement and getting a percentage result of 88.33% with very practical criteria. Then the data on the results of the teacher's response to the practicality of the media from the limited scale trials carried out can be seen from Table 8.

Table 7. Teacher's Response to Practicality

No	Name	Attractiveness Score (%)	Category
1	Sarmini, S.Pd	92%	Very Practical
2	Bonni Safitri, S.Pd.	96%	Very Practical
Amount		**94%**	**Sangat Praktis**

Table 8 shows the data obtained from the assessment results from 2 homeroom teachers for grade 3A and 3B students at SDN 021 Kepau Jaya, namely the homeroom teacher for class 3A, Mrs. Sarmini S.Pd, who gave an assessment with a percentage value of 92% with a very practical category, and Mrs. Bonni Safitri. S.Pd gave an assessment with a percentage value of 96% in the Very Practical category. From the two respondents, a total attractiveness score of 94% was obtained in the Very Practical category.

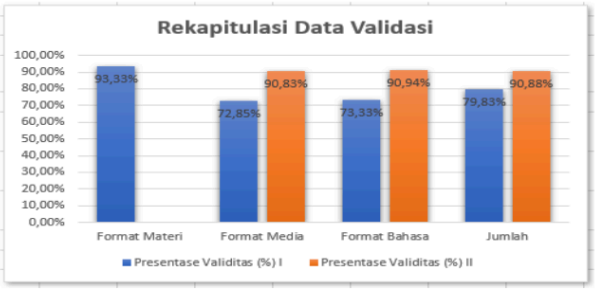


Figure 3. Data Validation Recapitulation

Discussion

The research is develop and produce powerpoint-based interactive media in order to overcome the problems faced by teachers and students, the media created will be validated first by 6 experts, namely linguists, media experts and material experts. Base on the two validators, the researchers revised the use of language used in media products that are useful for conveying material effectively at the level of understanding of third graders. Second validation section is the result of validation 2 by linguists on interactive media based on powerpoint on theme 8 sub-theme 1, the total percentage of validator 1 has a percentage of 88.88% which is declared Very Valid and validator 2 is obtained 93.33% which declared Very Valid with the total number of the two validators, namely 90.94% which was declared Very Valid and worthy of a limited scale trial. Moreover at the implementation stage, a practical test is conducted for teachers and students to assess the practice of interactive powerpoint-based media that will be used in the learning process. Teachers and students were asked to fill out the teacher and student response

questionnaire sheets that had been prepared, while the purpose of the trial was to view and obtain data about student responses to the media that had been made. The data from the students' responses to the learning media received a good response with a response stating that it was practical and very effective.

It is in line with previous study that aimed at developing a learning media based on Information and Communication Technology (ICT), especially PowerPoint, for the integrated thematic instruction (Putra et al., 2019). The results showed that there was a significant improvement in students' learning outcomes from 68.94 to 76.72. In addition, the PowerPoint-based learning media gave a positive effect to students in which they felt very happy when using it. It is reinforce by other researcher that conducted study to describe PowerPoint-based interactive multimedia products in learning multiple material mathematics (S. A. Nugroho et al., 2022). The result concluded that PowerPoint-based interactive multimedia products are developed and feasible for use in Class IV elementary mathematics learning multiple materials and factors.

The implication of this study is making powerpointbased learning media on the theme 1 and subtheme 8 also build students' positive attitudes toward the media used. All students feel happy learning using the PowerPoint-based learning media. Learning by using the PowerPoint-based media also provides efficacy for students in understanding the contents presented because it creates dynamic learning in the classroom. The limitation of this study was only carried out until the implementation stage to see how the practicality of the media developed, it is hoped that subsequent researchers will be able to present a more complex and in-depth Powerpoint-Based Interactive Media on Subtheme in Elementary School development.

4. CONCLUSION

Powerpoint-based interactive media get a very good assessment based on the total score from the experts. It can be concluded that the powerpoint-based interactive media developed is feasible to use in the learning process. This powerpoint-based interactive media can make it easier for teachers to convey information to students and can increase student activity in the online and offline learning process. Moreover powerpoint based learning media on the theme 1 and subtheme 8 also build students' positive attitudes toward the media used.

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9. Development of Powerpoint-Based Interactive Media on Theme 8 Subtheme 1 in Elementary School

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