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An Active Learning Process by Using Media Fun Thinkers "Weather"

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ABSTRAK

Kurangnya kemampuan guru dalam merancang pembelajaran tematik yang dapat mengaktifkan siswa, sehingga berdampak pada siswa yang cenderung pasif dalam belajar. Salah satu cara untuk meningkatkan keaktifan siswa dalam pembelajaran tematik adalah dengan bantuan media pembelajaran berupa media fun thinkers. Penelitian ini bertujuan untuk menghasilkan media fun thinkers "Cuaca" dan mengetahui validitas media fun thinkers "Cuaca". Penelitian ini merupakan penelitian pengembangan yang dilaksanakan dengan menggunakan model ADDIE. Subjek penelitian ini adalah 2 orang dosen sebagai ahli isi, 2 orang dosen sebagai ahli media, 2 orang guru sebagai praktisi dan 12 orang siswa yang terdiri atas 3 orang siswa sebagai uji perseorangan dan 9 orang siswa sebagai uji kelompok kecil. Instrument yang digunakan dalam penelitian ini adalah rating scale dan angket. Metode pengumpulan data yang digunakan pada penelitian pengembangan ini adalah menggunakan menggunakan observasi, wawancara, studi dokumen, rating scale dan angket. Data dianalisis secara deskriptif dengan menghitung indeks validasi aiken untuk mengetahui validitas media fun thinkers dan persentase untuk mengetahui mengetahui respon guru dan siswa. Media ADDIE yang dikembangkan dinyatakan valid berdasarkan hasil penilaian oleh ahli isi dan ahli media secara keseluruhan memperoleh indeks validasi aiken terendah 0,625 dan tertinggi 1 serta respon guru dan siswa memperoleh persentase keseluruhan memperoleh 91,7% dengan kualifikasi sangat baik. Berdasarkan hasil tersebut maka dapat disimpulkan bahwa media fun thinkers cuaca valid dan layak digunakan dalam pelajaran khususnya tema cuaca kelas III sekolah dasar.

ABSTRACT

The lack of teacher ability in designing thematic learning that can activate students so that it impacts students who tend to be passive in learning. One way to increase student activity in thematic learning was by the help of learning media in the form of media fun thinkers. This study aimed to produce media fun thinkers "Weather" and determine the validity of the media fun thinkers "Weather." This research used development research carried out using the ADDIE model. The subjects of this study were two lecturers as content experts, two lecturers as media experts, two teachers as practitioners, and 12 students consisting of 3 students as individual tests and nine students as small group tests. The instrument used in this research was a rating scale and a questionnaire. The data collection method used was observation, interviews, document studies, rating scales, and questionnaires. The data were analyzed descriptively by calculating the Aiken validation index to determine the validity of the fun thinkers' media and the percentage to determine the teacher and student responses. As a result, the ADDIE media developed was declared valid based on the results of the assessment by content experts, and media experts as a whole obtained the lowest Aiken validation index of 0.625 and the highest 1. The teacher and student responses obtained an overall percentage of 91.7% with very good qualifications. Based on these results, it can be concluded that the weather fun thinkers media was valid and feasible to use in lessons, especially the weather theme for grade III elementary school.

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1. INTRODUCTION

Education is a conscious effort made to improve human quality. In other words, it is an effort to humanize humans (Julianto & Subroto, 2019; Maryani & Sumiar, 2018; Syaparuddin et al., 2020). Improving human quality requires a quality learning process. In general, learning is a process to guide students in the learning process to provide changes for the better (Badjeber & Purwaningrum, 2018; Pane, 2017). In the learning process, learning can be said to have been successful or going well if students or students experience changes in themselves and can understand the subject matter well (Salam, 2017; Setyowati et al., 2018)), So it is necessary to design learning by these objectives. One solution that can make learning by this understanding is to create active learning. In general, active learning is a learning process designed by the teacher by increasing student activity (Doyle et al., 2018; Lombardi & Shipley, 2021) and not passively provide material on books to students (Avana, 2019; O'Connor, 2021). By active learning, it is expected that students can develop and optimize their abilities to maximize their learning outcomes (Agustina et al., 2019; Rahmawati et al., 2019). To create effective learning by implementing learning based on student experience and based on problems (Mulyanto et al., 2018; Yantoro & Kurniawan, 2020). In carrying out active learning, it is necessary to have learning media. Learning media can be said as all forms of tools and objects used to assist in implementing learning (Puspitarini & Hanif, 2019; Tafonao, 2018). By using instructional media in lessons, will be able to attract students' interest, can help accelerate student understanding, can clarify abstract material, overcome space limitations, create productive and communicative learning, streamline lesson time, and can eliminate student boredom (Nikmah et al., 2019; Ntobuo et al., 2018). So that in online learning, it is essential to have learning media.

But in fact, the learning process that the teacher carries out is still textual, in which the teacher only conveys what is in the textbook (Mutakinati et al., 2018; Rawung, 2019). In the learning process, students seem unmotivated because the model that the teacher used in learning still looks monotonous or rigid (Bustami et al., 2018; Mawardi & Baihaqi, 2018). It is related to the observations obtained in the field; it is known that in learning, teachers do not use learning media; this is because they find it difficult to determine the media that teachers can use in carrying out learning. If this is not followed up, it will impact students who follow the learning process. The monotonous learning process will make students bored, inactive, and less enthusiastic in learning (Nastiti et al., 2018; Oktaviani et al., 2019), making students less in learning outcomes. In this regard, an active learning model is needed with the active involvement of students, the role of the teacher as a facilitator, moderator, mediator, motivator, and the use of learning tools or media (Hastuti et al., 2018; Laila et al., 2018). In addition, based on observations, it is needed to develop learning media on the weather theme due to the teacher finding it challenging to choose or determine learning media that can activate students in learning.

The solution that can be done based on the problems above is designing a learning process that actively involves students in learning (Hendriana et al., 2018; Herawan, 2017). In addition, the solution that can be done for the above problems is to design a learning process that uses learning media to help students understand the subject matter (Aprilia & Putri, 2020; Nurwijayanti et al., 2019). Learning media that are considered suitable in active learning are learning media that are by students' character and in learning can help students understand abstract material (Datta et al., 2019; Saputri et al., 2018). Piaget's theory supports this state that elementary school students are in the concrete operational phase (AD, 2018; Bujuri, 2018), so substantial media is needed in learning. In addition to concrete learning media, active learning also requires game-based media because the use of game-based media can create a fun, meaningful learning atmosphere and make students more engaged and creative (Ardhani et al., 2021; Moyer-Packenham et al., 2019) so that learning objectives can be achieved properly. One of the learning media that can explain the material is abstract and has the principle of playing in its use is media fun thinkers.

Media fun thinkers is a set of books packaged to make learning more fun. This media is also equipped with a tool in the form of a plastic board with 16 boxes inside that can be moved from one chart to another (Anjarani et al., 2020). Media fun thinkers is a set of books packaged to make learning more fun. This media is also equipped with a tool in the form of a plastic board with 16 boxes inside that can be moved from one chart to another (Fadlilah, 2019). The media fun thinkers book developed is declared valid and has a display that can attract students' interest in learning (Riani et al., 2019). Other research results showed that using fun thinkers media significantly affects student understanding in learning (Wijaya et al., 2021). The results of other studies showed that the media fun thinkers developed were declared suitable for use in learning, especially in the skill of writing narrative essays (Sukma & Amalia, 2021). Other research results showed that scientific-based fun thinkers book media on theme 4, various jobs, sub-theme 1, types of work were declared suitable for learning (Nst, 2020). So that, it can be believed that media fun thinkers can be a solution to the problem of students' lack of active participation in learning.

Many researchers have been carried out on media fun thinkers. However, all of the studies mentioned above only develop media fun thinkers with certain materials. In this research media fun, thinkers will be set on a background design adapted to the weather theme. The weather theme is one of the themes in grade 3 semester 2, which consists of several sub-themes, including weather conditions, weather changes, weather changes on human life, sub-themes of weather climate, and seasons. The selection of the weather theme in this study was based on the results of observations which stated that in this theme, most teachers had difficulty choosing learning media that could attract students' interest in learning. In addition, this development is based on the characteristics of lower-grade students who prefer pictures over writing (Siddik, 2018; Vennix et al., 2018). Therefore, this development research, the fun thinker media, was developed using questions based on the material on the weather theme. In addition, development is also carried out using text and images on questions and background displays adjusted to the weather theme. Therefore, this development research aims to develop media fun thinkers and find out the validity of the media fun thinkers developed. With the development of media, fun thinkers are expected to significantly influence the learning process by increasing student interest and making learning fun to become active.

2. METHOD

This research used development research of learning media that was packaged in a media book fun thinkers. This study used the ADDIE research model (Analyze, Design, Development, Implementation, Evaluation). This model was chosen because it has a systematic stage (Tegeh & Jampel, 2017). The selection of the ADDIE development model was due to a systematic, clear, and grounded theoretical path. The subjects of this study were two lecturers as content experts, two lecturers as media experts, two teachers as practitioners, and 12 students consisting of 3 students as individual tests and nine students as small group tests. The data collection method used in this development research was observations, documentation studies, rating scales, and questionnaires. The observation method is carried out to find out directly the problems that occur in the field. Documentation studies were conducted to obtain data regarding the needs in the research process. The rating scale is raw data in numbers and then interpreted into descriptive terms, such as weak-strong, positive-negative, bad-good. The rating scale used on the rating scale is 5-1 (Ilhami & Rimantho, 2017). The rating scale was used to obtain data in testing the validity of the developed media. A questionnaire is a measuring tool or data collection that contains statements given to respondents to assess a particular object (Riany et al., 2016; Wardana et al., 2020). Questionnaires were used to obtain data to determine the responses of teachers and students to the developed media. The grid for the media fun thinkers assessment sheet is presented in the following table.

Table 1. Blueprint of content expert

No	Aspect	Indicator
1	Language use	Quality of Language use
2	Content of the questions	Clarity and completeness of the identity of the 2013 Curriculum
		The relevance of practice questions to basic competencies
		Relevance of practice questions to indicators
		The relevance of practice questions to the level of student development
		Relevance of practice questions to lesson content

Table 2. Blueprint of expert media

No	Aspect	Indicator
1	Media design	Media cover design
		Image quality displayed
		The clarity of the displayed text
		Media display
		Layout
2	Language Usage	Quality of Language use
3	Ease of use	Ease of use of media
		Clarity of media usage

Table 3. The blueprint of Practitioner or Teacher Response

No	Aspect	Indicator
1	Media serving	Media technical quality Media display
2	Media quality	Quality of content in the media Instructional quality

Table 4. The blueprint of students responses

No	Aspect	Indicator
1	Question material	Retention of material
2	Media use	Ease of using media in learning

To compile an instrument to be valid, several experts (judges) carried out a content validity test (judges) who have competence in the variables being studied. This validity test was carried out using the Gregory formula. To determine the coefficient of content validity, the results of research from several experts (judges) were converted into a two × two cross-tabulation. The instruments tested for validation were 1) media validation instruments by media experts and 2) media validation instruments by content experts. Overall the media validation instrument has a content validity of 0.95 with a very good category. The data analysis method used in this study is a qualitative descriptive analysis method and a quantitative descriptive analysis method. The qualitative descriptive analysis method is a way of processing data in sentences or words, or categories regarding an object (Agung, 2014). The qualitative descriptive analysis method in this study was used to process data sourced from observations, distributing questionnaires or questionnaires, results of literature studies, and input and suggestions from the results of reviews by experts. The quantitative descriptive analysis method is processing data in numbers or percentages regarding the object under study (Agung, 2014). The quantitative descriptive analysis method was used to obtain expert agreement on the validity of the media developed from each expert through an assessment sheet. The score obtained is then calculated using the Aiken validation index formula. To determine the criteria or categories for content validation based on Aiken criteria, namely V<0.40 low validation, 0.40<V>0.80 moderate validation, V>0.80 high validation (Retnawati, 2016). The teacher and student response data analysis technique was obtained using a questionnaire which was then processed into percentage form. The formula used to calculate the percentage of each subject is then calculated the overall percentage (Tegeh et al., 2014).

3. RESULT AND DISCUSSION

Result

The analysis stage, at this stage, goes through several stages, namely, needs analysis, curriculum analysis, and analysis of student characteristics. The needs analysis results show that the existence of media is still underutilized, and the existing media in schools still seem monotonous when used in learning, causing students' interest and motivation to learn less. Therefore, it is necessary to have learning media designed with learning while playing techniques to relieve students' boredom of learning material, which is fun thinkers. The results of the curriculum analysis show that basic competence and indicators of competency achievement contained in the weather theme include digging up information about weather changes and their effects on human life, which are presented in oral, written, visual, and/or environmental exploration forms (Indonesian) with indicators stating the information required. Relating to weather conditions, understanding the meaning of unity in diversity in the surrounding environment with indicators finding diversity in unity, and generalizing the idea of fractions as part of a whole using concrete objects and explaining and doing addition and subtraction of fractions with the same denominator (mathematics) with indicators conclude the form of simple fractions and perform subtraction and addition of fractions. The analysis of student characteristics shows that elementary school students are in the concrete operational stage. At the time of learning requires a concrete object. Students will find it difficult to learn without using objects that can represent the thing in question. Based on this theory, learning media is very necessary for its existence. The existence of the media makes it easy for students to better understand the material being studied.

The planning stage (design) determines the basic competencies and indicators of competency achievement that will be used in making fun of thinkers' media content. At this stage, the design of media content for fun thinkers is also carried out. Designing the content is intended so that the product

manufacturing process can be designed systematically and conceptually. The content design includes compiling a blueprint based on basic competencies and indicators, compiling questions, answers, and answer keys, and compiling a layout design for questions and answers based on the answer keys in the book. At this stage, the media fun thinkers assessment instrument was created. The instrument used in this assessment is in the form of a questionnaire. The questionnaire is divided into five types of instruments, namely 1) media validation instruments by media experts, 2) media validation instruments by content experts, 3) practitioner response instruments, 4) individual test instruments, and 5) small group test instruments. The media validation instrument was previously sought for the level of content validity carried out by testing the instrument used by judges. This validity test is carried out using the Gregory formula. To determine the coefficient of content validity, the results of research from several experts (judges) were converted into a 2 × 2 cross-tabulation. The instruments tested for validation were 1) media validation instruments by media experts and 2) media validation instruments by content experts. Overall the media validation instrument has a content validity of 0.95 with a very good category. At this stage also media fun thinkers are made. The following is the result of the development of media fun thinkers.

Figure 1. Cover Display, Instructions, Basic Competence, and Competency Achievement Indicators, and Content Display

The development stage is the last in this research. The implementation and evaluation stages are not carried out because this research aims only to the feasibility of the developed media. At this stage of development, tests were carried out by experts, teachers, and students on the developed media. The test was carried out by four lecturers who were experts in their fields as media experts and content experts. Based on the data analysis conducted, all media fun thinkers validation instrument items got the lowest Aiken validation index of 0.625 in the medium category. The highest Aiken validation index was 1 with the high validation category. Therefore, media fun thinkers weather can be said to be valid. Fun thinkers media testing was also conducted on teachers and students to get responses from teachers and students to the developed media. This test involved 2 third-grade elementary school teachers and twelve students as an individual test and a small group test. The response from the teacher or practitioner to the developed media gets a percentage of 93%, and the response of individual test students gets a percentage of 90%. The response of small group test students gets 92%, which is based on a five-scale conference table with a very good category. The following are clearer results from the validation of the media fun thinkers developed.

Discussion

The product produced in this development research is media fun thinkers. Media fun thinkers were developed using the ADDIE development model. Media fun thinkers were declared valid based on assessments by experts, including content experts, media experts, practitioner responses, individual test students, and small group test students. There are several things to consider in making the media fun thinkers, namely material aspects, question aspects, linguistic aspects, and implementation aspects (Riani et al., 2019). In terms of media, it includes quality, language use, media display, learning material, and motivating quality (Latifah et al., 2020). Products are developed by testing to determine validity through assessments by media experts, content experts, teachers or practitioners, and students as individuals and small groups. At the analysis stage, observations were made to analyze the needs, characteristics of students, and the curriculum. The problems found at this stage are the lack of use of instructional media in the learning process and learning media that are often used less to attract students' interest in learning. In addition, it is known that the characteristics of elementary school students are at the concrete operational stage so that students will understand the material when taught using concrete media (AD, 2018; Bujuri, 2018; Septiani et al., 2020). Based on the analysis results, it is also found that students will be happy in participating in learning if learning is designed with a play system. Based on the results of the analysis that has been collected, it will be a reference in the media development process.

The next stage is the design stage, which is carried out by compiling the content design. The preparation of the content design can make the development of media fun thinkers can be done in a systematic or planned manner. For example, in content design, media fun thinkers are designed to have bright colors. The use of bright colors in the fun thinkers' book is intended to give an attractive impression to students. In addition, the fun thinkers' design contains many animated images so that it can attract students' interest in learning and provide concrete examples of the material that is loaded but still gives an interesting impression to students (Ananda, 2018; Doyan et al., 2021; Hikmawati, 2018).

The development stage is the last in this research. Based on the results obtained, media fun thinkers are declared valid based on the results of the assessment of content experts and media experts and teacher responses and student responses. Based on these results, the fun thinkers' media was declared suitable for learning, especially on the weather theme for class III SD. The feasibility of media fun thinkers can also be seen from the compatibility of media fun thinkers with the characteristics of third-grade elementary school students. Jean Piaget's theory states that elementary school children are in the concrete operational stage (Dewi & Yuliana, 2018; Marinda, 2020), which children will understand if they learn with concrete objects. The use of learning media greatly facilitates learning because the media can make abstract material more concrete (Khotiimah & Risan, 2019; Supriyono, 2018). The concrete object that can be utilized is by using the developed media fun thinkers. Fun thinkers media is media that can help teachers and students understand the material being studied with the help of practice questions in the fun thinkers' media. The feasibility of media fun thinkers can also be seen from the visualization aspect. Fun thinkers' media development displays material packaged in the form of animated images. With the use of animated images, students will not feel burdened. Pictures can also give ideas or clarify a thing or material being explained (Ratnaningsih & Nastiti, 2018; Sartono & Irawati, 2019). The use of images in learning can also help explain abstract material so that it is easy to explain and easily understood by students (Hilmi, 2016; Situmorang & Andayani, 2019). Thus, it can be said that using fun thinkers media in learning can help teachers explain the material and can help students understand the material that is still abstract.

The results of the research mentioned above are relevant to the study results, which stated that the fun thinkers' book with the theme of sharing work was asked to be valid (Riani et al., 2019). Another study that got the results that the media fun thinkers developed was declared suitable for use in the learning process (Nst, 2020). The results of other studies show that fun thinkers media as a learning medium can create a learning atmosphere that makes students active and not bored quickly (Anjarani et al., 2020). Based on the research results, the fun thinkers' media is suitable for use in learning. Based on this, the media fun thinkers developed has several advantages. The advantages of the fun thinkers' media that have been developed are that the fun thinkers' media can help students understand abstract things more concretely. In addition, the fun thinkers' media developed made students more active in learning because the fun thinkers' media was made using learning while playing techniques.

The implication in this development research is the existence of weather fun thinkers media with a very good predicate. The implication of this development research for teachers is that they can provide answers in the selection of media that teachers can use in thematic learning, especially on weather. This is because the content in the Fun Thinkers Media has been guided by the teacher's and student's books. The implication of this development research for students is to give the impression of learning while playing so that students do not get bored quickly in learning because the fun thinkers' media contains interesting

pictures and is equipped with aids in the form of visual frames with a matching system. The media size is not too large, so this media can be easily carried. Fun thinkers media can not only be used at school but can be used at home too. Using this media at home, students can learn more freely, and students do not feel burdened by learning while playing. To the things mentioned above, this study still has weaknesses. The weakness in this floating research is that the material presented in this fun thinkers media is limited to the weather theme for third-grade elementary school students. In addition, this research is only limited to knowing the validity of the developed so that the effectiveness of the developed media is not yet known. Based on this, suggestions for further research so that there are similar developments that can develop media for fun thinkers with other or wider coverage of material. In addition, it is hoped that similar developments will produce media that are not only finished in seeking validity.

4. CONCLUSION

Media fun thinkers can be declared valid, which has been tested by media experts and content experts. Media fun thinkers get a very good response from teachers and students. Therefore, the media fun thinkers deserve to be used in learning the weather theme because it can increase student interest and make learning fun so that learning becomes active.

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