Development of Interactive Media to Support the Steinberg Method to Improve Indonesian Creative Thinking Skills in Kuala Baru Laut Elementary School Students for the 2021/2022 Academic Year

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Abstract. This research produces interactive media which is presented in the form of Powerpoint sub-themes of living and inanimate objects in the surrounding environment to improve students' creative thinking skills in Indonesian. The research method used is the investigation and Development research and development method which refers to the ADDIE model. Individual trials in general of 77.5% in very good conditions and limited field trials in general of 87.9% in very good conditions. The result observes student activity in actively asking the teacher in general 85%. The results of observing the activeness of students in observing the game seriously are on average 90%. The results of active observations of students can give good and correct opinions in the group an average of 60%. The mean score on the initial test was 72.45 and the post-test average was 86.75.

Keywords: Interactive Media, Steinberg Method, Creative Thinking, Indonesian Language.

1 Introduction

The development of creative thinking can be implemented through learning that develops the development of higher thinking. wording develops students' creative thinking skills, learning conditions are needed that provide freedom in developing creative thinking and expression. Students' creative thinking abilities must continue to be stimulated so that students can solve their, and problems from various points of view by using the ideas and skills they have, as emphasized by Aldig and Arseven (2017) that people who have creative thinking skills use the knowledge possessed by other people. people and make leaps that allow them to see things in new ways.

At the elementary school level, students who can think creatively can be shown by their activeness in the classroom during the learning process, and by preposition many questions and ideas to ask the teacher. This can happen if the learning provided by the teacher relates directly to the surrounding environment. As is the case at SDN Kuala Baru Laut, especially preposition 1, where the process of learning to read which is usually done is only limited to learning that comes from books and does not utilize the media around the school

environment. So that the introduction of the letters in reading given today will not necessarily be remembered by students the next day, because learning only takes place without any element of student thinking that involves 3 components (content intelligence, emotional intelligence, and processing intelligence). Students' creative thinking skills must be continuously stimulated so that students can solve their, and problems from various perspectives by using the ideas and skills they have. This is as stated by Halper (2013: 78) that creative thinking is often also called divergent thinking, which means that it provides various possible answers to the same question.

Someone who thinks creatively in reading means that he can create new ideas that are not unusual, but still cover the material provided. This is reinforced by the opinion of Sani (2014: 105) which states that creative thinking is the ability to develop ideas that are unusual, qualified, and appropriate to the task. This is a self-development of new ideas that have good quality. This is reinforced according to Ihksan Faturohman (2020:17-21) who stated that there was an increase in students' mathematical creative thinking skills using the Creative problem-solving model. Then according to Dini Kinanti (2012: 73-80) stated that several things he did during the research were: designing learning activities through open-ended learning to familiarize students with open-ended questions; providing a test of creative thinking skills using open-ended questions; determining research subjects as representatives of each category; conducted in-depth interviews to triangulate the data. The results of this study are in the form of creative thinking patterns of high-category students as much as 20% of the number of students, medium as much as 33.33%, and low as much as 46.67%. And Jumadika (2019: 93-103) suggests that the results of the study show that the five subjects representing each level of creative thinking ability have different characteristics in showing indicators of creative thinking ability. Based on the opinion that has been described, that creative thinking in reading is a process that develops unusual ideas and produces new thoughts that have a broad scope.

After preliminary observations, almost 80% of students from grades 1 to grade VI at SDN Kuala Baru Laut are still not fluent in reading, not yet able to recognize and even not able to distinguish the letters of the alphabet which have an impact on the learning process that is less active. less interested in learning with teachers who use learning methods that are not to the needs of students in the class plus students' reading skills are also still low. Then students are also less able to write simple sentences dictated by the teacher, there are many letter errors and errors in pronunciation. This creates learning conditions that are less attractive and students lack respect which results in the absence of student creativity in creative thinking in the learning process.

One of the causes of students in lower grades, especially grades I, is still not fluent in reading due to several factors, including the environment that teaches communicating in local languages, even most parents who are not able to communicate using Indonesian which has an unfavorable impact on children in absorbing vocabulary. In addition, the teacher also communicates with students using regional languages both inside and outside the classroom. This is what causes or is the background why the students at the school are included in the

category of not being able to communicate using Indonesian properly which has a huge impact on the learning process.

Based on the description of the problem, the first step that must be immediately sought for a solution is how to improve students' creative thinking skills on the sub-themes of living and inanimate objects in the environment around the first-grade elementary school. Interactive Media is a combination of several elements (text, sound, photos, animation, and video) which are presented interactively in learning media. This is in line with Husnati's (2021) research which states that interactive media based on the Problem Based Learning model to improve students' creative thinking skills in physics is valid, effective, and efficient to use in learning. Thus the interactive media used is to provide a more interesting learning offering for students so that learning becomes more meaningful. In addition, it can also improve the quality of the learning process in achieving the learning objectives that have been formulated. As stated by Purnama (2012: 34) that interactive media must be presented interactively by combining several elements in it.

This course is an er ana Analysis of research needs subjects This serves as the basis for formulating interactive media development. Determination of the selection of animate and inanimate subtheme material in the surrounding environment, because this subtheme is one of the materials that can improve students' creative thinking. The development of this interactive media is one solution to improve the creative thinking of students in the first grade of elementary school. An educator is required to be creative to be able to compose interesting learning, and according to the level of student needs by following learning achievements, therefore the use of media in the learning process must be considered properly. Interactive media that will be developed by researchers is interactive media using the Steinberg method.

Therefore, we need a solution in observing this problem. Interesting learning is expected to improve students' creative thinking skills, one of which is by using methods. Where the use of the method used must be by following the material to be developed.

One of the learning methods that are part of learning that can be used in learning Indonesian that provides opportunities for students to learn creatively and be more active is the Steinberg method so that students' creative thinking abilities can be demonstrated and improved.

2 Research methods

This type of research is research and development Research and Development (RnD). In this study, what will be developed is interactive media as a supporter of the Steinberg method to improve students' creative thinking skills. The final product will be evaluated for feasibility and effectiveness. This research procedure uses the ADDIE development model which consists of five stages which include analysis, design, development, implementation, and evaluation. described as accurately as possible.

Products produced in research and development (R&D) are in the form of objects (hardware) or the form of software. In this study, the product produced is in the form of software, as for the product in question is interactive media material on Theme 7 Class 1 in the video there are several learning items related to indicators of creative thinking using the Steinberg method at each step of its presentation, including materials, games, and quizzes that intended for elementary school students. This is done to help teachers make it easier to deliver learning materials and so that it is easier for students to accept and understand the learning materials presented in Indonesian language learning.

To collect data in this study, the data collection techniques that will be used are guided by the quantitative and qualitative research paradigms. Quantitative data were obtained by calculating the scores of each aspect of the instrument of material experts, media experts, and student responses. While qualitative data is obtained from the conversion of quantitative data into qualitative and the results of criticism and suggestions from material experts and media experts.

In this study, three types of data collection techniques will be used. The following is a description of the data collection techniques used, namely:

1. Observation

Observations were made when searching for initial data using an assessment rubric. As stated by Sugiyono (2017:214) that observation is a complex process, a process composed of various biological and psychological processes. In the process of observation, observing various learning activities and finding out the media available in class I at SDN Kuala Baru Laut.

2. Interview

Interviews in this study were conducted during the initial data search. This is reinforced by Sugiyono (2017: 210), who that interviews are used when conducting a preliminary study to find problems that must be researched and to find out more in-depth things from respondents. In this study, the interviewee was the homeroom teacher for class I at SDN Kuala Baru Laut.

3. Questionnaire

Questionnaires were used when researchers validated material experts, validated media experts, and validated linguists. Questionnaires are several many written questions that are used to obtain effective and efficient information from respondents about their reports, or things they know. This is reinforced by Sugiyono (2017:216), suggesting that the questionnaire is to give a set of questions or a written statement for the respondent to answer. The type of questionnaire used is a closed questionnaire, which uses questions with a choice of answers that have been provided. The purpose of using the questionnaire is to find out the responses from the validator experts regarding the feasibility of the developed media so that the scores on the interactive media are obtained.

3 Results and Discussion

The results of this research analysis indicate that the product development process developed through the ADDIE development model which consists of five stages, namely Analysis, Design, Development, Implementation, and Evaluation can significantly improve the creative thinking skills of first-grade elementary school students and can improve students' reading comprehension. This is by following the research of Pratama (2021), Husnati (2021), and Sebastian (2020) which states that interactive media can significantly improve students' creative thinking in learning activities.

Researchers also analyzed student needs and curriculum analysis. From the results of observations and preliminary studies as well as observations made in the first grade of the Kuala Baru Laut State Elementary School, it is known that the media used for the sub-theme material of living and inanimate objects in the surrounding environment still utilizes letter cards and their use has not been maximized, due to limited experience and teacher insight into media. learning has not yet taken place optimal in increasing scholarly studying activities. The media used for learning the first grade of the Kuala Baru Laut State Elementary School is only in the form of textbooks and letter cards, where the learning media is not yet interactive.

After analyzing the student's needs, the researcher then proceeded to Phases of data collection that can be used as planning material. In this case, researchers collected data by directly observing schools and obtained data from teachers on reading in schools. After observation and data collection, the next step is to come up with a product design. in initial preparation, namely Preparation of necessary materials in the manufacture of products such as pictures that are real and known to students and the layout of the use of vocabulary in each game from very easy, medium, difficult, and very difficult difficulty levels to see the child's creativity level in thinking and not running. of sub-themes and tailored to the needs of students. As a reference taken from sources that can be accounted for such as books, the internet and so on that can support the process of making Interactive Media.

After the product has been designed, the next step is for the researcher to submit the product to a team of experts to be validated to find out whether the product is suitable for use or not. This product assessment was carried out by 3 teams of experts, namely in the field of grammatical feasibility, then in the field of material feasibility, and the field of learning design feasibility. In the interactive media development activities, after the design is complete, the interactive media are submitted to a team of experts to be assessed and given suggestions for improvement. After being declared valid, then the interactive media was tested on students.

After being declared valid, then the interactive media was tested on students. The product test was carried out in one school consisting of 20 students in one class. The first product test or the small group trial stage is 10 students. Based on small group trials, it was obtained that 87.7% achieved understanding in working on the questions or games and 12.3% had not been able to understand in working on game questions. This means that the class as a

whole has not classically achieved the completeness of student learning. After the first trial and product redesign, the next step is a second trial or limited field trial with a total of 20 students in class 1. Based on the product trial, 92% were able to understand and solve vocabulary game questions with a level of creativity. different children and as many as 8% still do not understand learning vocabulary games and creativity that has not been seen. Thus it can be concluded that the resulting interactive media is feasible to be used In getting to know activities.

From the above research results, it can be concluded that the use of interactive media while learning the content of these seven subthemes 3, "Living and Inanimate", can improve students' creative thinking ability. This is reinforced by classical information about the completion of the practical exam in class 1, which is 92%. The results of the analysis of this study indicate that the feasibility of the product developed by small and limited group trials can significantly improve the creative thinking skills of first-grade elementary school students and can improve students' reading comprehension. This is by following the research of Kinanti (2012), Efi (2017), and Ikhsan (2020) which state that the feasibility of interactive media can significantly improve students' creative thinking in learning activities.

The process of the feasibility of interactive media by conducting small-group experiments, limited to first-grade students of the Kuala Baru Laut State Elementary School. Interactive media are developed to support the learning process. A good Interactive Media Must meet eligibility criteria. To determine the interactive feasibility of Media as Supporting the Steinberg Method for the Subtheme of Living and Inanimate Objects around, a feasibility test was carried out by material experts, linguists, and presentation design experts.

The results of the Materials Report validation show that the developed interactive media received an average rating of 4.4 on the "Highly Feasible" criterion. therefore the interactive media developed continuously with SK, KD, and by following the level of student development. The suggestion from the material expert validator is that the first time is to improve the design of the indicators of the lesson plans that will be studied and separate the types of games that are categorized as easy, medium, difficult, and very difficult to make it easier for students to work. The assessments and suggestions from the validator are used as the basis for revising to improve the components or parts of the interactive media as a support for the Steinberg method of sub-themes of living and inanimate objects around which are still not quite right. This is intended to improve the resulting product development Based on the analysis performed, interactive media as a supporter of the Steinberg method, the subtheme of living and inanimate objects around is related to the indicators to be addressed in the study which cannot combine two items in one measurement, because the indicator only measures 1 competency in each indicator, it must be separated.

Verification results by linguists are known that based on the aspect of the content feasibility component, the linguistic component of interactive media as a supporter of the Steinberg method for the sub-themes of living and inanimate objects around gets a score with an average value of 3.7 By the standard of "decent".This shows that the language used in interactive media is a supporter of the Steinberg method, the sub-themes of living and

inanimate objects around which were developed by following good and correct linguistic rules. The suggestion of the linguist validator is to use simpler language to make it easier for students to understand the meaning of each question.

Verification results by presentation design experts showed that based on the aspects of the appearance of writing, display of images, the attractiveness, and integration of the material with the sub-themes of living and inanimate objects around it obtained a score with an average value of 4.3 By the criteria of "very feasible". This indicates the language used. interactive media as a supporter of the developed Steinberg method can be used in the learning process of presentation. The following is a recapitulation of scores from a team of validation experts.

Interactive Media as a supporter of the Steinberg Method, the sub-themes of living and inanimate objects around before obtaining the feasibility as above, of course, underwent revision from the validator. Validator suggestions are used as input and guidelines to improve Interactive Media. Interactive Media as a supporter of the Steinberg method, the sub-themes of living and inanimate objects around have The Material Language and Presentation Design Feasibility Questionnaire was revised and improved with suggestions and inputs from the reviewers to achieve the above results. Thus, it can be concluded that interactive media as a supporter of the Steinberg method to improve the creative thinking skills of grade 1 students at SD Negeri Kuala Baru Laut is feasible to be tested on students and used in learning.

The results of the analysis of this study indicate that the effectiveness of the product developed significantly improves the creative thinking ability of first-grade elementary school students and can increase students' vocabulary. This is by following the research of Mawan (2021), Prasetya (2019), and Tiara (2018) which state that the effectiveness of interactive media can significantly improve students' creative thinking in learning activities.

Validity testing was performed after the interactive media was declared valid and viable. The effectiveness of interactive media In this study results of Observation from teachers based on the activities and levels of students' creative thinking in following the learning process. Based on the data from the observation sheet and the student's creative thinking level sheet at the implementation stage, it shows that students' activity and creative thinking have increased.

The effectiveness of interactive media as a supporter of the Steinberg method to improve students' creative thinking skills in the sub-themes of living and inanimate objects around is also obtained from student learning outcomes in each game that students do. This test aims to see how far improvement students have in learning to use interactive media through vocabulary games. This test was conducted on 20 students.

The initial test carried out Data showed that students scored incompletely before using interactive media. The average value achieved, i.e. 57% in the category 'Fair', when examined individually, she was the only 4 out of 20 students to achieve a full score in the category 'Good' and the rest of her 16 students fell below the category. "Perfect". "sufficient".

The final test conducted to obtain data on student scores after using interactive media had reached Perfect. It is known from the average value of 92% achieved in the category "very good". Looking at the 20 students individually, 17 students received a perfect score in the very good category. The remaining three of her students received full marks in the "good" category. From these results, we have data that learning outcomes improve after learning supported by interactive media.

After using interactive media as support for the Steinberg Method to improve the creative thinking skills of first graders with animate and inanimate subthemes in their learning activities, student learning outcomes improved significantly. It is known that the average score of students before using interactive media (initial test) is 57% and at the time after using interactive media (final test) is 92%. Based on these data, it was found that the difference in the increase was quite significant, namely 35%.

The value Of the above learning outcomes, interactive media as a supporter of the Steinberg method to improve the creative thinking skills of grade 1 students with the sub-themes of living and inanimate objects around makes students' learning activities increase and the addition of students' vocabulary to reading also increases. Improved learning outcomes are proof that interactive media is a supporter of the Steinberg method to improve students' creative thinking skills in the subtheme of living and inanimate objects around There is a difference in student learning outcomes because students and teachers are effective when they use them for learning interactive media as a supporter of the Steinberg method. to improve the creative thinking skills of grade 1 students with the sub-theme of living and inanimate objects around. So it can be concluded that interactive medium is viable and effective for use learning in grade 1 Elementary Schools.

In line with research done by (Yusliana Husnati: 2021) Data obtained for relevance, practicality, and effectiveness, based on the validations and studies conducted, i.e. validity of interactive media obtained by 86.5% with a very valid category and the results of the reliability of interactive media obtained of 93.06% in the reliable category. Comparing the outcomes of the initial test and the final test of the studies performed by (Aditiya pratama:2021) shows the result of his research, namely the main result of research and development is interactive media in the form of android applications assisted by and website2 app builder on the thematic subject matter in elementary school. The results of the feasibility test are an average of 90% for the feasibility of the material with very decent criteria, while for an average feasibility value of 86% for the feasibility of media with very decent criteria, and an IT feasibility getting 89% with very decent criteria. The results of the average value of the educator's feasibility test get a score of 87.33% with very decent criteria. And for student responses, there are two scale divisions, namely large scale and small scale. The average score for the small group was 79.11% with very good criteria, and the average score for the large group was 82.83% with very good criteria. Based on this data, the developed interactive media is classified as very good, so its use makes sense.

Based on the discussion above, if it is associated with learning theory. So this research is based on cognitive learning theory with the character Jean Piaget (1988:45) stating that

children's language and ways of thinking are different from adults. Therefore, the teacher teaches using language that is by following the child's way of thinking. So that what needs to be considered at the learning stage is that it is based on concrete objects and the material being studied should be felt new but not foreign to make it easier for students to understand the concept. From this description, it can be concluded that interactive media developed to improve students' creative thinking skills are relevant to cognitive theory, where each learning process is arranged neatly and structured to make it easier for students to understand the material so that student creativity emerges in learning.

So it can be concluded that the development of Interactive Media as a supporter of the Steinberg Method to improve students' Creative Thinking abilities with the subtheme of living and inanimate objects around class 1 SDN Kuala Baru Laut using the ADDIE development model also fulfills valid and effective criteria in its use in learning activities and improves thinking skills. creative students.

4 Conclusion

The development of interactive media to improve students' creative thinking skills on the sub-themes of living and inanimate objects in the environment around the first grade of SD Negeri Kuala Baru Laut using the ADDIE development model meets the valid criteria and is effective for use in learning activities, increasing student learning activities.

Based on the problem, research goal, research results, and discussion in the research on the development of Interactive Media as a supporter of the Steinberg method to improve students' creative thinking skills, it is stated as follows:
  a. The process of developing interactive media as a supporter of the Steinberg method to improve the creative thinking skills of grade 1 students with the subtheme of living and inanimate objects around is carried out in five stages, namely:
  1. Analysis is the first stage in the form of curriculum analysis, student needs analysis.
  2. Design is the product design phase, which consists of research equipment grid creation, product design, material preparation, concept map creation, image collection, and color design selection.
  3. Development is the interactive media development stage, starting with formulation, interactive media design, evaluation tool development, validation 1, revision 1, validation II, and revision II.
  4. Implementation, is the product implementation stage consisting of product trials, small group trials, and limited field trials.
  5. Evaluation, is the final stage of the product development procedure consisting of a comparison of the trial phase and product feasibility.
  b. The feasibility level is known based on the feasibility assessment of one material expert lecturer, one language expert lecturer, and one presentation design expert lecturer.
  1. Feasibility assessment by material experts obtained an average score of 3.2 and 4.4 (Very Eligible)

2. Feasibility assessment by linguists obtained an average score of 2.6 and 3.7 (Fair)

3. Feasibility assessment by presentation design experts obtained an average score of 2.8 and 4.3 (Very Eligible)

c. Interactive Media as a supporter of the Steinberg method to improve the creative thinking skills of grade 1 students, the sub-theme of living and inanimate objects around is declared effective to generate activity and creative thinking of students and student learning outcomes. This is evidenced by student learning outcomes. At the time of the initial test, the percentage was 57% and at the time of the final test, the percentage was 92%. The difference between the initial test and the final test is 35%, which indicates that learning by using interactive media to improve students' creative thinking skills on the sub-themes of animate and inanimate objects in the surrounding environment is better than before.

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