

# Development of Poster Learning Media to Improve Learning Outcomes on the Main Material of Substances and Their Changes at SMP Negeri 5 Bengkulu City

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## Abstract

*This research aims to develop poster learning media on substances and their changes that are suitable and practical for use after being validated by several experts and responded to by several teachers and students. This research method uses the Borg & Gall development model which consists of 10 steps which the researcher will limit to 7 development stages, namely data collection, design/planning, initial product development, initial trials, product revisions, field trials, final product revisions. To create students who are more enthusiastic in participating in learning activities, the researcher developed this poster learning media to determine the feasibility of the poster learning media. Based on the results of data analysis after the product was validated by the validator, the resulting final product met the appropriate criteria with an average score from material experts of 96.42%, media experts of 92.15%, language experts of 78.15%, for teacher responses amounted to 84.10%, student response results were 97.5%. The results of field trials on students using poster media obtained an average student score of 84.8%. From the previous explanation, poster learning media is suitable for improving student learning outcomes.*

**Keyword : Poster Media, Learning Results, Substances and Their Changes.**



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## 1. INTRODUCTION

Education is an effort to prepare the younger generation to welcome and face developments in the global era. So Education must be implemented as well as possible so as to produce quality education and increase the quality of human resources. Technological developments have an impact on the field of education. The learning process cannot be separated from media, methods and learning outcomes. Media can be used as a means of providing educational material delivered by teachers to students. Meanwhile, learning methods regulate the organization of teaching materials and delivery strategies. Furthermore, learning outcomes are measured effectively and efficiently to determine students' abilities and interests in the subject.

The problem often faced by the world of education is the weakness of the learning process. In the process of teaching and learning activities, students learn more theoretically. Classroom learning is more directed at children's ability to understand the subject matter. Meanwhile, the theory that students learn lacks application in everyday life. This causes students to lack a deeper understanding of the subject matter. In teaching and learning activities, the presence of teachers is expected to develop students' potential and creativity. So that students can have knowledge not only of theory, but can practice it for future developments in the future.

Poster media is a media that contains really simple images or expressions, posters are also a visual aggregate of strong designs, with colors and messages that aim to capture students' eyes. Media is essentially a component of the learning system. As a component, media should be an integral part and must be in accordance with the overall learning process. Learning outcomes are an internal ability that has become a person's personal property and the possibility of that person doing something according to his or her abilities.

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Then learning outcomes are a competency or skill that can be achieved by students after going through learning activities designed and implemented by teachers in a particular school and class.

Based on the results of initial observations carried out on June 7 2023, the problem at SMPN 5 Bengkulu City, especially in class VII, was information that teachers were using printed books provided by the school and had not tried using posters as their learning medium. Teachers also predominantly use lecture and rote methods so that students in the learning process are not too enthusiastic about learning. The advantage is that SMP 5 Bengkulu City has a laboratory so that science teachers in some materials also carry out practicums so that learning activities are more varied and students pay more attention during the learning process. . At SMPN 5 Bengkulu City, the 2013 curriculum is used in classes VIII and IX, while in class VII the independent curriculum is used, but its implementation has not been fully implemented by teachers so that students are less active in class. Based on the above, the researcher is interested in conducting research "Development of Poster Learning Media to Improve Student Learning Outcomes on the Main Material of Substances and Their Changes at SMP Negeri 5 Bengkulu City".

## **2. METHOD**

The type of research used by researchers is using research *and* development (R&D) methods and data collection methods. The product developed is poster media . Poster media is an illustration of a simplified image to attract attention, be easy to remember and make it easy to understand the material being taught. *The Research and Development (R&D)* method is development research where the research can produce products and test the effectiveness of these products. The research was carried out at SMP Negeri 5 Bengkulu City . The subjects studied were class V II students.

The development procedure in this research uses the *Borg & Gall research model*. *Borg & Gall* states that research and development (R&D) has 10 stages, but due to the limitations of researchers in conducting research, therefore in this poster media development research only 7 (seven) will be used. ) stages, namely: data collection , planning , initial product development , initial trials , product revisions , field trials , and final product revisions . Research subjects are part of the sources who are able to provide the main information needed in a study. This research focused on students in class VII A of SMP Negeri 5 Bengkulu City who were chosen by researchers to be used as research sites. Observation data collection techniques carried out at SMP Negeri 5 Bengkulu City, researchers conducted interviews regarding school conditions and what media had been used in the SMP, and whether SMP 5 Bengkulu City had ever used posters as a learning medium.

Research instruments are tools used to collect data. The instrument used in product validation is a questionnaire. The questionnaire used to collect data uses posters with scores of 1, 2, 3, and 4. Posters have four or more questions that are combined to form a score/value that represents individual characteristics, for example knowledge, attitudes, and behavior. The data analysis technique used in this research is the Likert scale, namely by changing qualitative data into quantitative data with the provisions of validation tests, practicality tests and effectiveness tests.

## **3. RESULT**

As a result of the needs analysis carried out, the researchers obtained the main results from the research and development of poster learning media in order to improve learning outcomes on the subject matter of substances and their changes at SMP N 5 Bengkulu City. This research was conducted at SMP N 5 Bengkulu City. The respondents in this study

were educators and students of class VII who received substance material and its changes. In this study, researchers used the *Borg and Gall R&D method* which had been modified by Sugiyono from stages 1-7. The research and development carried out produced science learning media products in the form of posters.

#### **4. DISCUSSION**

The results of observations carried out on June 7 2023 at SMP N 5 Bengkulu City, it was found that teachers had never used poster media in the learning process, facilities and infrastructure were still limited so learning was less effective. A needs analysis was given to class VII science teachers at SMP N 5 Bengkulu City to determine their needs for poster learning media on the main material of substances and their changes. Based on the analysis of teacher needs, it can be seen that teachers experience limitations regarding the media used by teachers, students are less enthusiastic and there are still students who do not understand the material being taught. Teachers have never developed a variety of media such as poster media, so they need new media to make learning more interesting and effective. The results of the analysis of students' needs for poster learning media, the main material is substances and their changes. Based on the analysis of student needs, it is known that some students have difficulty learning substance material and its changes because too much material has been memorized. Students stated that they needed interesting and exciting alternative learning media such as poster learning media.

After carrying out the needs analysis stage, the researcher then developed an initial poster learning media product in order to overcome the problems being faced. The stages in initial product development are preparing the shape, image and size. The material raised by researchers is the subject matter of substances and their changes. Material is taken from various sources ranging from worksheets, modules, books and the internet. The material is adjusted to competency standards, basic competencies, indicators and learning objectives. The next step is to create a layout design for the poster learning media which will be developed to make it attractive to use as learning material, such as determining the layout, color, type of letters, size of letters and use of words.

In planning poster learning media, researchers divide it into 4 stages, namely: 1) Determining the size and collection of materials that will be used to make poster media. The initial stage carried out by researchers in making poster learning media on the basic material of substances and their changes is determining the size and layout of the media. Then collect material on substances and their changes collected from various sources, namely worksheets, books, modules and the internet. 2) Determine the design of the media, image colors, type of font used,

and appropriate language. The second stage is the process of designing poster colors that are appropriate and look comfortable when viewed, the type of letters that will be used, at least a lot of text in the poster media. 3) The process of creating or combining all media components starting from the size and type of paper, as well as the shape of the image and information on each sub-material. The third stage is the stage of selecting paper for poster learning media. The paper used is art cardboard type paper which is very suitable for making posters, does not tear easily, and will not get wet if exposed to water. determine the information on each image that will be placed in the poster learning media 4) Finishing or finishing the final product. The final stage is finishing or completing the final product, combining all the components that have been collected in the first stage into poster learning media. This final stage is the most important stage and will influence the final result of the poster learning media product. Adding components, equipment, coloring and layout is the main focus at this stage. The final result is a poster learning media on the subject matter of

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substances and changes which are ready for validation testing to determine the suitability of the media.

Validation sheet about posters with material on substances and their changes. The results of the material validation test were 96.42%, which is included in the very good category. Based on these scores, the researcher concluded that the material validation test results showed that the material had been tested and was very suitable for use as supporting material for science learning media, poster media. Validation sheet regarding poster media, substance material and its changes. The results of the media validation test were 92.5%, which is included in the very good category. Based on the results of these scores, the researcher concluded that the media validation test results showed that the media had been tested and was very suitable for use as supporting material for science learning media, poster media. Language validation sheet regarding poster media, substance material and its changes. The results of the media validation test were 78.13%, which is included in the good category. Based on the results of these scores, the researcher concluded that the results of the language validation test showed that the media had been tested and was very suitable for use as supporting material for science learning media, poster media. At this stage of the practicality test, to determine the practicality of the learning media in Poster learning media which was carried out at SMP Negeri 5, Bengkulu city, it included 1 teacher and 35 students of class VII A. After the researchers obtained expert results, this practicality test was carried out according to the results of the calculations that had been carried out. researchers for poster learning media based on student responses of 97.5 "very practical" and teacher responses of 84.10 "very practical". If the percentage of poster learning media scores more than 51%, then poster learning media is said to be feasible. In testing the effectiveness of learning media, 35 students were the research subjects. From the results of the questions that have been answered, the total success rate is 84.8%. A score of 80% or more indicates that the media is in the very effective category for use as learning media.

## **5. CONCLUSION**

From the results of the development carried out by researchers, conclusions can be drawn, namely:

1. Poster media got a score from material expert validation, namely 96.42%, classified as very good in the material expert validation test, got a score from media expert validation, namely 92.5%, classified as very good in the media expert validation test, got an expert validation score. language, namely 78.13%, is classified as good in the linguist validation test.
2. The teacher's response to the test of the practicality of poster learning media was 84.10%, which was included in the very practical category. For student responses, they got a score of 97.5%, which is included in the very practical category.
3. The results of the effectiveness trial with 35 students from class VII A received an average score amounting to 84.8, thus the mastery test of learning outcomes is included in the very effective category, with this the poster learning media is good to use in the learning process.

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