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DEVELOPMENT OF FISH BODY ORGAN LEARNING MEDIA FOR CLASS V STUDENTS IN ELEMENTARY SCHOOL

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Abstract

This research is conducted by observation that shows that there is still lack of science learning media that explain the organ material in this case is the material of breathing tool of fish. Difficulties of students in understanding the material also become a consideration by researchers to development media board organ tray fish body. This type of research is a research and development method or Research and Development (R & D). The development of fish board tray board boards consists of five stages: (1) analysis, (2) design, (3) development, (4) implementation, (5) evaluation. From the fifth step is produced media board tray organ organs of fish. The media products of fish body tray board trays are developed and validated by experts. Results The products and materials from two experts showed the percentage score of 90.38% in the "very decent" category, while the teacher's response to media from both primary schools showed 96.6% percentage and 98.3% included in the "very worthy" category and the results The analysis of their student response questionnaires responds with pleasure using the media board tray of fish's organs. Therefore, the media board tray of fish organs is feasible to use and provide a good impact in the process and student learning outcomes. Based on the results of this study suggestions that can be delivered is that the learning media board fish body tray organ for students of grade V primary school can be used by teachers in science study of human and animal organ materials. Teachers can use the instructional media of fish body tray board for grade V students of elementary school in a fun learning for students.

Keywords: *learning media, SD science*

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INTRODUCTION

The success of a learning process can be driven by a number of factors supporting the achievement of learning objectives including, teachers, learning strategies, students, the environment and learning support facilities that strongly support learning in the form of media. Learning media is a teaching aid that can be used by teachers as intermediaries to deliver material, learning media must be designed to be interesting in the learning process so that students 'attention and interest in learning can be improved, students' abilities are expected to be achieved optimally by using media properly. Arief S. Sadiman (2011: 7) states that media is everything that is used to channel messages from the sender to the recipient so that it can stimulate students' thoughts, feelings, concerns and interests in such a way that the learning process occurs. The learning process can be successful if done effectively and educatively.

Effective and educative learning can be done by making the classroom learning atmosphere more enjoyable, and the desired learning objectives can be achieved well. One important problem that is often faced by teachers in learning activities is to choose or determine the right learning media in order to help students achieve the expected competencies. The teacher's task is to describe the subject matter so that it is developed and easily understood by students. By implementing the learning media that has been developed, it is expected to be an alternative for teachers in delivering a learning material so that the teaching and learning process will run better and varied, which in turn results student learning also increases.

When the researcher made observations in class V of SDN 03 Kauman Batang and SDN Kasepuhan 07, it was found several facts including the lack of available science media which sometimes made it difficult for teachers to explain to students. In this case the fish body organ material which certainly requires learning support facilities. Based on the results of interviews with the homeroom teacher class V SDN 03 Kauman Batang and SDN Kasepuhan 07, that the concentration of students in learning is easily divided, due to the large amount of material for students, students also do not understand the purpose of the lesson and think abstractly. But in reality the teacher only uses reference books and conventional methods with modest learning media so that students are less enthusiastic in following the lessons. At the time of learning many students do not fully participate in the lesson, not even a few students who carry out activities other than learning activities. For example playing alone, disturbing friends, daydreaming, chatting and others.

Efforts to overcome these problems, can be done through the development of learning media dioramas so that students are easier to understand science learning materials. One of the learning media that can be used by the teacher is diorama, because it is believed that diorama media can bring out the power of imagination stored in a person so that he will easily remember. Diorama media can be applied in learning by modifying learning materials into tangible objects. Media for fish body organ tray training for fifth grade elementary school students can be used as an alternative learning media to optimize the learning process, especially in the science material.

METHOD

Research and Development (R&D) is a process or steps to develop a new product or improve existing products, which can be accounted for (Sukmadinata, 2013: 164). This type of research and development was chosen because researchers developed products in the form of instructional media. The learning media used by researcher is a development media. This research and development will produce fish organ board media for V grade semester 1. The development of this fish organ organ tray board media through the testing or validation stage and before the testing stage the development procedures of the media are carried out. The stages of developing the ADDIE model include:

1. Preliminary study

The preliminary study aims to identify the problem through the results of interviews, observations and analysis of school needs, researchers design a product in the form of learning media that is appropriate to the problem at hand.

2. Model Development

a. Analysis

Analysis is the first step that must be done, the analysis aims to find out the needs and find out the problems that exist in students and determine the way out.

b. Design

The results of the needs analysis can be used by researchers as a basis for designing a learning medium that activates students, sharpens students' brains, creates a learning atmosphere that is fun and not boring.

c. Development

Development of fish body organ tray board media was adapted from an image of fish body organs. Media for fish organ tray board is used in learning organs in fish. So that the image

contained on the media tray board organ of a fish's body is an image that is converted into a diorama with parts of the body's organs in the fish in it. In this development, validation and revision are done before they are implemented to students.

d. Implementation

Development of media for fish body organ tray based on the needs of V grade elementary school students. Before being tested the media of fish body organ tray boards have been validated first. Media products of fish body organ tray for learning of fish organs are tested for validity as a result of development.

e. Evaluation

The evaluation that will be carried out for fish body organ tray board media aims to perfect the product after the implementation phase. Product evaluation includes product improvements obtained from suggestions on the questionnaire given to media experts and material experts, then improvements are made so that the media is valid for use.

3. Model Testing

Model testing is carried out to find out how feasible the development of media to support learning activities for students.

RESULTS AND DISCUSSION

The research on media development of fish body organ tray for V grade elementary school students was carried out based on observations in class V, Kauman 03 Batang elementary school and Kasepuhan 07 Batang elementary school which discussed the development of media for fish organ tray board. Media development is based on an analysis of the needs of learning media which is carried out using interviews and observation methods. The aim is to develop media on fish body organ trays to produce interesting and appropriate learning media in line with the material being taught in odd semester in V grade of elementary school.

The results of the interview on 18 November 2016 with the V grade teachers of Kauman 03 Batang elementary school and Kasepuhan 07 Batang elementary school, showed that the V grade students were still lazy to learn by simply reading textbooks. The teacher in conveying learning has not used varied media. Students who feel bored and bored will make a deviation in the form of making a noise or something like that.

In this development, this research produces learning media that is applied to Natural Sciences for V grade in Elementary School on Competency Standard 1, namely Identifying human and animal organs. Media for fish body organ tray made with 50 x 60 cm plywood and designed as attractive as possible. In the diorama media there are fish body parts of internal organs that are designed as attractive as possible with the support of the application of LED lights and LED corn lights as indicators of organs. Besides that, the media for organ tray of fish body implements an environmentally friendly recycling system. Made from used newspaper waste which is melted and then mixed with wood glue, will make it strong and solid. While the organs in the body of the fish are made of colorful nights which are adjusted to the location of the fish organs which are coupled with the application of corn LED lights which function as indicator lights on each organ part when the button is pressed. This media is designed as attractive as possible with the aim that students can be interested in playing and paying attention in learning. Media on fish organ tray board was developed to facilitate student understanding to foster learning motivation and make learning something interesting and fun, so students are more active and creative.

Media of fish body organ tray board has received an assessment of learning media experts and material experts, as well as fulfilling the eligibility criteria with media expert 1 in the first validation showing a percentage 86% and the second validation showing 93%. The first material validation shows a percentage 90% and the second validation shows a percentage 93%. In the assessment of media experts 2 the first validation got a percentage of 88%, in the second validation got a percentage 93% with the category appropriate to use. Questionnaire responses from the V grade Kauman 03 Batang elementary school got a percentage 96.6% with the category very feasible to use. Whereas based on the questionnaire responses of the V grade teacher at Denasri Kulon 02 Batang elementary school the percentage is 98.3% with the category appropriate to use. Judging from the questionnaire responses of students at Kauman 03 Batang elementary school with a percentage 96.2% and Denasri Kulon 02 Batang elementary school with a percentage 100%. So it can be concluded, the media of fish body organ tray is suitable to be used.

CONCLUSION

From the results of the study and discussion it can be concluded that:

1. Media of fish body organ tray board was developed with the addition of LED lights as a means of supporting media and corn LEDs as

indicators of fish organ indicators and the addition of buttons to turn on the indicator lights.

2. The fish body organ tray board has received an evaluation of learning media experts and material experts and meets the eligibility criteria with media expert 1, the first validation shows a percentage of 86% and the second validation shows 93% and the first material validation shows a 90% percentage and validation the second shows a percentage of 93%, and in the assessment of media experts 2 the first validation gets a percentage of 88%, in the second validation gets a percentage of 93% with the category appropriate to use. Also from the questionnaire responses of V grade teachers at Kauman 03 Batang elementary school got a percentage of 96.6% with the category very feasible to use. Whereas based on the questionnaire responses of the V grade teacher at Denasri Kulon 02 Batang elementary school, the percentage was 98.3% with the proper category to be used. And seen from the questionnaire responses of students at Kauman 03 Batang elementary school with a percentage of 96.2% and Denasri Kulon 02 Batang elementary school with a percentage of 100%. So it can be concluded, the media of fish body organ tray is suitable to be used.

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