Development of Blended Learning Model LKPD to Improve Science Learning Outcomes for Class VIII Semester I at Fatima Catholic Middle School 2 Sarudik-Tapanuli Tengah

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Abstract. Education is an effort designed to achieve a learning process in order to increase the potential possessed by students. In the 2013 curriculum, there are several group A or compulsory subjects, one of which is Natural Sciences. In science lessons, especially to improve science learning outcomes on the structure and function of plants in class VIII, students must use LKPD with a blended learning model. The use of student worksheets (LKPD) in learning activities will provide benefits for students, namely to make students actively involved with the material discussed. One form of LKPD that is appropriate for class VIII students is the blended learning model LKPD. The purpose of designing a blended learning model is to improve and improve the quality of learning about science material on the structure and function of plants in class VIII. Based on the description above, the authors are interested in conducting research on the development of blended learning model worksheets to improve students' science learning outcomes on the structure and function of plants in Eight grade. So the author compiled a research proposal entitled "**Development of Blended Learning Model LKPD To Improve Science Learning Outcomes for Class VIII Semester I at Fatima Middle School 2 Sarudik-Tapanuli Tengah"**

Keywords: Development, LKPD Blended learning model, Structure and function of plants.

1 Introduction

Natural Science is a systematic collection of theories, its general application is limited, its general application to natural phenomena, born and developed through scientific methods such as observation and experimentation and demands scientific attitudes such as curiosity, openness, honesty, and so on (Trianto , 2011: 151). According to Prastowo (2011: 204) LKPD is a collection of sheets containing student activities that allow students to carry out real activities with the objects and problems studied. LKPD can also be interpreted as printed teaching materials in the form of sheets of paper containing material, summaries, and instructions for carrying out tasks that must be done by students, which refers to the basic competencies

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achieved. From this explanation, the LKPD is adjusted to be able to direct students to be active. One form of the right LKPD is the Blended Learning LKPD model. This LKPD does not only focus on the ability of students to work but also on the ability of students to read and analyze phenomena scientifically. LKPD based on blended learning in science learning is the right form to use during science learning at the junior high school level. Thus developing the LKPD Blended learning model can improve student learning outcomes, especially at the junior high school level.

2 Methods

This research is a development research that refers to the Blended learning model to improve the quality of learning. The sequence of activities carried out in research in this ADDIE model is Analysis, Design, Development, Implementation, and Evaluation. At the analysis stage, identification of the causes and effects of problems that arise in the science learning process in Eight grade is carried out. At the design stage, the LKPD design will be developed by determining learning objectives, compiling tests, determining appropriate learning strategies using the blended learning method, making the IPA module based on blended learning and combining blended learning methods in learning. At the development stage, namely preparing a product design to be implemented in accordance with the results of the needs analysis before it is implemented. At this implementation stage, learning uses IT, conducts learning with techniques directed by the teacher, directs students to work on LKPD individually or in groups, conducts initial evaluations to find out the advantages and disadvantages of learning media. The main goal in the implementation step is to improve science learning outcomes through blended learning model worksheets. At the evaluation stage, it is necessary to prepare appropriate evaluation criteria at the specified school using a method that can be of interest to students. Also given in the form of an instrument questionnaire from the beginning and end of learning as well as student learning outcomes during learning using the LKPD blended learning model.

3 Results And Discussion

The results of the material expert validation assessment, it can be seen that the teaching materials obtained a percentage score of 75%.

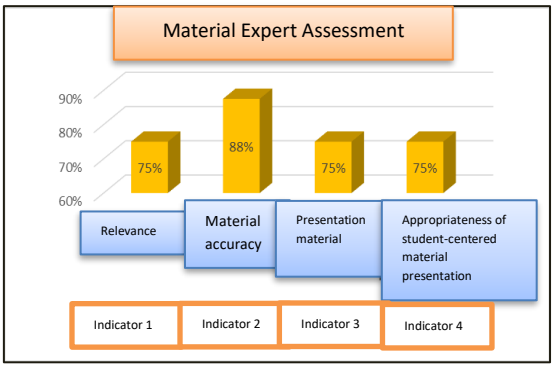

Figure 1. Material Expert Assesment

In media expert assessment results, the results of the assessment of media experts, this teaching material obtained a percentage score of 94%

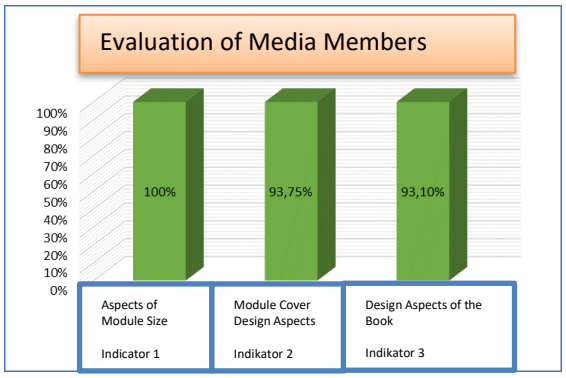

Figure 2. Evaluation of Media Members

in linguist validation assessment results, the results of the validation assessment of linguists, and then obtained a percentage score of 90%.

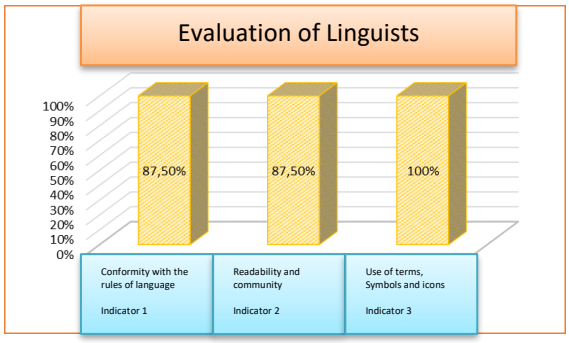

Figure 3. Evaluation of Linguits

In teacher questionnaire assessment diagram, before testing is done on students, first the class teacher gives an assessment of the LKPD.

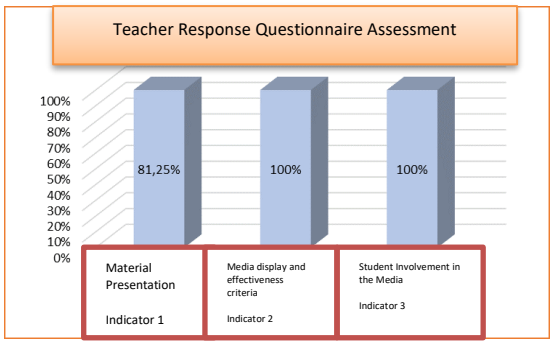

Figure 4. Teacher questionnaire assessment diagram

In the assessment with the highest percentage is found in the material presentation indicator of 87.37%, meaning that the blended learning model worksheet can make students interested in learning.

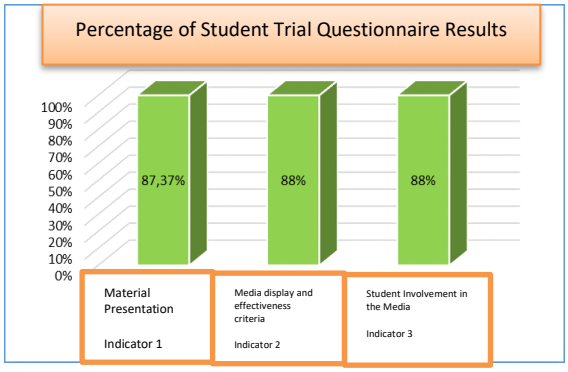

Figure 5. Percentage of Student Trial Questionare Results

4 Conclusion

Based on the results of research and discussion, this research can be concluded; From the learning outcomes of the LKPD blended learning model, it can be concluded that the LKPD learning outcomes with the blended learning model can increase the value and understanding of students in science subjects, and to determine the effectiveness of the LKPD blended learning model, it can be seen from the learning outcomes of students after working on the LKPD especially to improve the student's knowledge about the structure and function of plants in Eight grade. The effectiveness of LKPD was developed to determine students' scientific literacy skills by analyzing students' pretest-posttest tests.

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