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## EFFECTIVENESS OF USE OF LITTLE EARTH MEDIA ON LEARNING OUTCOMES OF SCIENCE SUBJECTS CLASS V STUDENTS OF SDN GUNTUR CIREBON CITY

Somantri<sup>1\*</sup>, Muhammad Iqbal Al Ghazali<sup>2</sup>, Mila Nurwahida<sup>3</sup>

<sup>1,2,3</sup>Universitas Islam Bunga Bangsa Cirebon, Indonesia

Email : [somantri@bungabangsacirebon.ac.id](mailto:somantri@bungabangsacirebon.ac.id)

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### Abstract

This study discusses the effectiveness of the use of little earth media to improve student learning outcomes material natural features Class v SDN Guntur Cirebon. The study was motivated by the lack of student learning outcomes in the material of natural appearance Class V SDN Guntur Cirebon caused by teacher-centered learning so that the need for student-centered learning such as using Learning media. This study aims to determine the differences in learning outcomes before and after using little earth media on the material of natural features of fifth grade students at Sdn Guntur Cirebon. This study is a type of quantitative research with an approach using experimental methods. Data collection techniques using learning outcomes test. This study is a population study, because it took all the students of Class V SDN Guntur Cirebon with the number of research subjects as many as 27 students. Collected research Data were analyzed using descriptive analysis techniques and hypothesis testing with regression analysis with T-test. Furthermore, the results showed that: 1) the learning outcomes of students before the use of little earth media are in the category of less. 2) The Learning Outcomes of students after the use of little earth media are in The Good category. 3) there is the effectiveness of the use of little earth media to improve student learning outcomes natural appearance material Class V SDN Guntur Kota Cirebon student learning outcomes of 40.45% teachers should consider the use of little earth media to improve learning outcomes, especially on natural appearance material Class V students and the school should continuously support teachers in implementing learning innovative and effective as the use of little earth media to improve the quality of teaching in schools.

**Keywords:** *Media Little Earth, Learning Outcomes, SDN Guntur*

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## INTRODUCTION

Man was created by God in a different way than any other creature. Man is given the mind to think in order to become a noble creature and become a differentiator for other creatures, namely animals and plants. With the presence of reason, humans are required to think and act in accordance with applicable rules and norms and fulfill needs. To fulfill their daily needs, humans need knowledge and knowledge to survive.

School as one of the IDIC system can be a place for students to get useful knowledge. This is in line with the definition of a copy of Permendikbud (Permendikbud, 2006) which defines a school as a system is a school that empowers all components in it in an integrated manner, closely interrelated with each other and encourages school activities to achieve goals, including inputs, outputs, and outcomes. In the school environment, students get a lot of knowledge, ranging from general knowledge taught in each subject matter and knowledge about how to socialize in social life.

Education is a way towards self-maturity in developing self-potential in the environment for the sake of survival in the community later this is in accordance with that expressed by UU SPN No. 20 of 2003 which essentially states that education is a planned effort to create an atmosphere of learning and the learning process so that students are able to develop their self-confidence and other skills needed to live in a society of nation and state. A good education of course always refers to the applicable curriculum. The curriculum is prepared and developed to achieve educational goals, namely preparing students so that they can live in society. As one of the educational systems, at least the curriculum has three roles, namely: conservative role, evaluative role, and creative role (Hamalik, 2011).

Curriculum 2013 (K-13) is a curriculum that applies in the Indonesian education system now. Curriculum is a fixed curriculum implemented by the government to replace the 2006 curriculum or what is often referred to as the Education unit level curriculum (KTSP) which has been in effect for approximately 6 years.

The 2013 curriculum was tried in 2013 in several schools. This curriculum is developed by focusing on three aspects, namely knowledge, skills, and aspects

of attitude and behavior. In this curriculum, learning materials are streamlined and some are added. The material that was downsized was seen in the language material Indonesia, IPS, PPKn and several other materials, while the material that was added was mathematical material. Social science is a blend of various branches of Social Sciences in harmony with that expressed by Sapriya (2014) Social Studies learning for us elementary school age children is more directed at the reality in the community or it can be said that learning is associated with the experience of children in the community. For the elementary school level, the organization of social studies subject matter in elementary schools adheres to an integrated approach, which means that it is adapted to real life aspects in accordance with the characteristics of age, level of development, behavior habits and behavior of elementary school children. The purpose of social studies learning is to develop the potential of students to be sensitive to social problems that occur in society, have a positive mental attitude towards the improvement of all inequalities that occur and train skills to overcome any problems that occur daily either be fall them selves or the community.

Based on the goals mentioned above in order to achieve these goals, teachers must teach by paying attention to how and making learning facilities to be used to teach so that the learning obtained by students will be more easily captured and meaningful. In line with that expressed by Gagne (2013) that, "teaching or teaching is part of learning (instruction) said, where the role of the teacher is more emphasized on how to design or arrange the various resources and facilities available for use or utilized by students in learning something".

Learning will not be optimal if only centered on the teacher does not focus on reciprocity between students and teachers, so the teacher must pack the learning to be interesting and make students active in the learning, the teacher must use the strategy of learning methods and media in order to foster creativity and interest in student learning during learning. One of the most important components of learning is the use of media. Media is an integral part in the teaching and learning process in order to achieve educational goals. The use of learning media is very helpful for educators in delivering learning materials. Arsyad (2014) states that, "the use of instructional media in the teaching and learning process can generate new desires and interests, generate motivation and stimulation of learning activities, and even bring psychological influences on students."

The development of Learning media is needed to support learning according to the four recommendations of UNESCO (Munir, 2010) that is "1) learning to know, 2) learning to do, 3) learning to live together, 4) learning to be" Based on the four pillars put forward by UNESCO, it can be concluded that with

the media learning students can't easily learn to know various things quickly, the media can also help students in doing things independently, with the media students can learn to live in groups, and with the media students can also learn to live in groups develop existing competencies in itself.

The usefulness of the media in general to clarify so as not to be too verbalistic, overcome the limitations of space, time, energy, and sensory power, generate a passion for learning and more direct interaction between students and learning resources, allows children to learn independently in accordance with the talents and abilities of visual, audio, and kinesthetic and provide the same stimuli, equalize the experience, and cause the same perception. It can be concluded that the Learning media is very important influence in the learning process that provides concrete experience, motivation to learn and enhance the absorption and retention of student learning, channeling messages from sender to receiver. So that learning can be in accordance with the planned goals. By using the little earth media, it is expected that the learning results can be more effective and meaningful, because with this media, students are able to recognize the shape of the Earth's surface as a whole by not having to plunge directly into the actual nature because in the little earth media there are various forms of natural features. Therefore, this study entitled "The effectiveness of the use of Little Earth Media on the learning outcomes of science Subjects fifth grade students of SDN Guntur Cirebon City".

## **METHOD**

The research method used is a pre-experimental type experimental method model one group pretest and posttest. The sample of this study is the fifth grade students of SDN Guntur Cirebon City totaling 27 students. Data retrieval is done with a test in the form of multiple choice questions totaling 10 Questions and 10 fields as well. The problem was made based on 4 indicators of learning outcomes in the form of explaining the identification of natural features, identifying various forms of natural features of land areas, identifying various forms of natural features of water areas and showing the attitude of preserving natural features. The data analysis technique used is prerequisite test such as normality test, homogeneity test and hypothesis test i.e. paired sample t-test.

## RESULTS AND DISCUSSION

### A. Research Result

Implementation of the study began with a pretest (initial test) to answer the formulation of the first problem is to find out how good the learning outcomes of students before the use of media little earth on the material of natural features of the fifth grade students of SDN Guntur Cirebon City. Furthermore, a treat was given to the class in the form of learning with little earth media on natural appearance material. Furthermore, posttest (final test) to answer the second problem formulation is to find out how good the learning outcomes of students after the use of little earth media on the material of the natural appearance of the fifth grade students of SDN Guntur Cirebon City.

Furthermore, hypothesis testing was carried out using the t test (test different) to answer the third problem formulation is to determine whether there are differences in learning outcomes before and after using the media little earth on the material of natural features of fifth grade students at SDN Guntur Cirebon. The analysis was done by comparing the pretest results and posttest results of student learning outcomes.

#### 1. Data Description Analysis

##### a. Description of Student Learning Results Before Using Little Earth Media

To find out the description or description of the learning outcomes of students before the use of little earth media, a test is carried out in the form of multiple choice questions amounting to 10 Questions and 10 questions as well. The questions were made based on 4 indicators of learning outcomes in the form of explaining the understanding of natural features, identifying various forms of natural features of land areas, identifying various forms of natural features of water areas and showing an attitude of preserving natural features.

Scoring or assessment for multiple choice using a score range of 0-1 while for the subject matter using a score range of 0-2. The highest score in this test is 30. Furthermore, the value of students will be calculated with a value range of 0-100. Furthermore, based on the learning outcomes of students before the use of little earth Media, a descriptive analysis of the learning outcomes of students before the use of little earth media using SPSS version 21 program assistance is as follows:

Table 1. Descriptive Analysis of Early Test Learners' Learning Outcomes

| Descriptive Statistics           |    |         |         |         |         |                |
|----------------------------------|----|---------|---------|---------|---------|----------------|
|                                  | N  | Minimum | Maximum | Sum     | Mean    | Std. Deviation |
| Pretest<br>Valid N<br>(listwise) | 27 | 36,67   | 76,67   | 1566,68 | 58,0252 | 10,63242       |

Sumber: Output SPSS 21, 2021

Based on the table above, it is known that the learning outcomes of students before the use of little earth media had a total score of 1,566.68 students with an average of 58.0252 the lowest score was 36.67, the highest was 76.67 and the standard deviation was 10.632. The average learning outcomes are in the range of less than 65 so that the learning outcomes of students before the use of little earth media are in the category of less (see Table Table 3.3 category of results Learn).

b. Overview of Student Learning Outcomes After The Use Of Little Earth Media

To find out the description or description of the learning outcomes of students after the use of little earth Media, a test is carried out in the form of multiple choice questions amounting to 10 Questions and fields amounting to 10al questions as well. The questions were made based on 4 indicators of learning outcomes in the form of explaining the understanding of natural features, identifying various forms of natural features of land areas, identifying various forms of natural features of water areas and showing an attitude of preserving natural features.

Scoring or assesment for multiple choice using a score range of 0-1 while for the subject matter using a score range of 0-2. The highest score in this test is 30. Furthermore, the value of students will be calculated with a value range of 0-100. Furthermore, based on the learning outcomes of students after the use of little earth media, a descriptive analysis of the learning outcomes of students before the use of little earth media using SPSS version 21 program assistance is as follows:

Table 2. Descriptive Analysis of The Final Test of Learners' Learning Outcomes  
Descriptive Statistics

|                    | N  | Minimum | Maximum | Sum     | Mean    | Std. Deviation |
|--------------------|----|---------|---------|---------|---------|----------------|
| Pretest            | 27 | 60,00   | 96,67   | 2040,00 | 75,5556 | 9,33700        |
| Valid N (listwise) |    |         |         |         |         |                |

Sumber: Output SPSS 21, 2021

Based on the table above, it is known that the learning outcomes of students after the use of little earth media the number of overall scores of students is 2040 with an average of 75.56 the lowest score is 60, the highest is 96.67 and the standard deviation is 9.337. The average learning outcomes are in the range of 71-84 so that the learning outcomes of students after the use of little earth media are in The Good category (see Table Table 3.3 categories of learning outcomes).

**2. Analysis Data**

a. Analysis Prerequisite Test

Prerequisite test analysis in this study is normality Test and homogeneity Test. Here are the results of the normality Test and homogeneity Test:

1) Normality Test

Data normality test aims to detect the distribution of data in one variable to be used in research. Good and feasible Data to prove the research models are normal distribution data. Normality test in this study uses the application of SPSS 21 to test the sample data that has been obtained through a test of critical thinking skills for each variable. Normality test was conducted by Kolmogro-Smirnov test (K-S). The following are the results of the normality test with the help of the SPSS version 21 program:

Table 4.5 Data Normality Test Results  
One-Sample Kolmogorov-Smirnov Test

|                                  |                | Pretest  | Posttest |
|----------------------------------|----------------|----------|----------|
| N                                |                | 27       | 27       |
| Normal Parameters <sup>a,b</sup> | Mean           | 58,0252  | 75,5556  |
|                                  | Std. Deviation | 10,63242 | 9,33700  |
| Most Extreme Differences         | Absolute       | ,129     | ,156     |
|                                  | Positive       | ,097     | ,156     |
|                                  | Negative       | -,129    | -,083    |
| Kolmogorov-Smirnov Z             |                | ,671     | ,812     |
| Asymp. Sig. (2-tailed)           |                | ,758     | ,524     |

a. Test distribution is Normal.

b. Calculated from data.

Sumber: Output SPSS 21, 2021

Based on the table above, shows that large value of Asymp. Sig.(2-tailed) untuk nilai tes awal (Pretest) yaitu 0,758 dan besar nilai Asymp. Sig.(2-tailed) for the final Test (Posttest) is 0.524, the second number is greater than 0.05, so it can be concluded that all the data in this study have a normal distribution.

2) Homogeneity Test

Homogeneity test is used to determine whether several variants of the population are the same or not. Uji ini dilakukan sebagai prasyarat dalam analisis independent sample t test dan ANOVA. The underlying assumption in the analysis of variance (ANOVA) is that the variances of the populations are the same. As a test criterion, if the significance value is more than 0.05 then it can be said that the variance of two or more groups of data is the same. The following are the results of homogeneity test with SPSS 21 program:

Table 4.5 Homogeneity Test Results  
Test of Homogeneity of Variances

Posttest

| Levene Statistic | df1 | df2 | Sig. |
|------------------|-----|-----|------|
| ,959             | 8   | 17  | ,497 |

Sumber: Output SPSS 21, 2021

Based on the table above, the Sig value that is 0.497 and the number is greater than 0.05, so the variance of all the data in the study is the same.

### 3) Hypothesis Test

Based on the results of the prerequisite test, the data in this study are normally distributed and the data variants are the same, then the hypothesis testing is done by parametric statistical analysis, namely the Paired Sample T Test. The following hypothesis test results:

Table 4.7 Hypothesis Test Results  
Paired Samples Test

|        |                    | Paired Differences |                |                 |   |          | t       | df | Sig. (2-tailed) |
|--------|--------------------|--------------------|----------------|-----------------|---|----------|---------|----|-----------------|
|        |                    | Mean               | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference |          |         |    |                 |
|        |                    |                    |                |                 | Lower                                     | Upper    |         |    |                 |
| Pair 1 | Pretest - Posttest | -17,53037          | 8,60340        | 1,65573         | -20,93376                                 | 14,12698 | -10,588 | 26 | ,000            |

Based on the table above, it can be known that nilai sig. (2-tailed) is 0.000 the number is greater than 0.05,05, so there is a significant difference before and after using little earth media on the material of natural features of Class V students at SDN Guntur Cirebon and the mean value at the thickness above is 17.53037 and your bert is negative so that the average increase from the pretest value to posttest value is equal to 17.53037.

## B. Discussion

### 1. Learning Outcomes Of Learners Before The Use Of Little Earth Media

Based on the results showed that the learning outcomes of students before the use of media little earth the number of overall scores of students is 1566.68 with an average of 58.0252 the lowest score is 36.67, the highest is 76.67 and the standard deviation is 10.632. The average learning outcomes are in the range of less than 65 so that the learning outcomes of students before the use of little earth media are in the less category.



2. Learning Outcomes Of Learners Before The Use Of Little Earth Media

Learning outcomes of students after the use of little earth media the number of overall scores of students is 2040 with an average of 75.56 the lowest score is 60, the highest is 96.67 and the standard deviation is 9.337. The average learning outcomes are in the range of 71-84 so that the learning outcomes of students after using little earth media are in The Good category.

3. Differences In Learning Outcomes Before And After Using Little Earth Media

Based on hypothesis testing shows that the value of GIS (2-tailed) is 0.000 the number is greater than 0.05 so there is a significant difference before and after using little earth media on the material of natural features of Class V students at SDN Guntur Cirebon City and the mean value of *T<sub>ebel</sub>* above is 17.53037 and is marked negative so that the average increase of the value of pretest to posttest value is equal to 17.53037.

The results of this study are in line with the theory expressed by Susilana and Riyana (2008) yesng reveals the usefulness of the media in general as to clarify so as not to be too verbalism, overcome the limitations of space, time, energy, and power of the senses, generate a passion for learning and more direct interaction between students with learning resources, allows children to learn independently in accordance with the talents and abilities of visual, audio, and kinesthetic the same stimuli, equalize experiences, and give rise to the same perceptions. By using the little earth media, it is expected that the learning results can be more effective and meaningful, because with this media, students can recognize the shape of the Earth's surface as a whole without having to go directly to the actual nature because in the Little earth there are already various forms of natural features.

The results of this study are also in line with research that has been carried out by M Arif Nuryadin (2018) with the title "improving social studies learning outcomes material of natural features and socio-cultural diversity through the Make a Match method in fourth grade students MI Miftahul Mukminin 02 Kec. Pabelan District. Semarang Academic Year 2017/2018). The research method used is class action research method (PTK). Based on the improvement of the results of research conducted initial conditions before taking action from 23 students there were only 8 students or 34.78% who achieved completeness with an average value of 63.91. In the second cycle of learning successfully increased with an average value of 83.04,04.

The results of this study are also in line with research conducted by Zamaludin (2013) with the research title "the use of Amini Media to improve student learning outcomes on natural features in fourth grade SDN Gardusayang". The research method used is the method of classroom action research (PTK).

Based on research conducted three cycles, overall has improved from the initial data, both from the process and learning outcomes. From the observation of the performance of the first cycle for the planning phase of 66% and 67% implementation, then fixed in the second cycle of the results of planning the results of planning 75% implementation 74%. In the third cycle of planning phase 100% and 93% implementation. There is a student activity presentation of the average value of the first cycle of 64.44%, Cycle II 70%, and Cycle II 88% with a target of 80% completeness. As for the results of learning presentation completeness, cycle I is 55%, Cycle II is 70% and cycle III is 90% with a target of 80%.

## CONCLUSION

Based on the results of the analysis and discussion of the research conducted, it can be concluded as follows:

1. The learning outcomes of students before the use of little earth media the number of overall scores of students is 1566.68 with an average of 58.0252 the lowest score is 36.67, the highest is 76.67 and the standard deviation is 10.632. Average learning outcomes are in the range of less than 65 so that the learning outcomes of students before the use of little earth media are in the category of less.
2. Learning outcomes of students after penggunaan media little earth the number of overall student scores is 2040 with an average of 75.56 the lowest score is 60, the highest is 96.67 and the standard deviation is 9.337. The average learning outcomes are in the range of 71-84 so that the learning outcomes of students after the use of little earth media are in The Good category.
3. There is a significant difference before and after using the little earth media on the material of the natural appearance of fifth grade students at Sdn Guntur Cirebon where the GIS value. (2-tailed) is 0.000 the number is greater than 0.05 and the mean value in the bold above is 17.53037 and is negative so that the average increase from the pretest value to the posttest value is 17.53037.

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