



The Influence of Realia Model Learning Media on Geography Learning Outcomes in Knowing the Earth Material

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ABSTRACT

Purpose of the study: This study aims to determine the effect of the realia model of learning media on geography learning outcomes in class X IIS students on the subject of knowing the earth.

Methodology: This study used a quantitative method with an experimental approach. The population in this study were all class X IIS SMA Negeri 22 Jakarta consisting of 4 classes of 144 students. The sampling technique was carried out by purposive sampling, which is based on the grades of the geography subject. The lowest score was obtained in class X IIS 1 and X IIS 2 with an average value of 74.38. The sample used was 72 students, consisting of 2 classes, namely class X IIS 1 as an experimental class of 36 students and class X IIS 2 as a control class of 36 students. The research was conducted in 5 meetings with a time allocation of 3 x 45 minutes each. The instrument used in this study was in the form of multiple choice tests totaling 24 questions. The researcher used instrument tests in the form of validity and reliability tests. After the data was collected, the researcher conducted a requirements test data by normality and homogeneity tests. The data analysis technique used the Paired Sample T-test to test the hypothesis. In processing the data the researchers used SPSS version 16.0.

Main Finding: The results of the calculation of the hypothesis test using the Paired Sample T-test obtained the value of $-t_{count} < -t_{table}$ ($-12,142 < -2,030$) and Sig (2-tailed) $0,000 < \alpha$ $0,025$, so it can be said Sig (2-tailed) $0,000 < \alpha$ (0.025) which means H_0 is rejected. This means that there is an influence of the realia model of learning media on geography learning outcomes in the subject of knowing the earth at SMA Negeri 22 Jakarta.

Novelty/Originality of this study: Applying realia model learning media in geography learning activities in an effort to improve student learning outcomes.

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1. INTRODUCTION

Education is a human effort to grow and develop innate potentials both physically and spiritually according to the values that exist in society and culture [1]. So that the progress of a nation cannot be separated from the educator factor, because education has an important role in efforts to increase human resources (HR) which is an important element in the development of a nation [2], [3]. In order for education to run well, this is where the government begins to play a role in the field of education. The government is responsible for

regulating matters related to education in such a way, starting from the curriculum, the quality of teaching staff, and the condition of the school environment to support the advancement of the quality of education in Indonesia.

Improving the quality of learning activities in schools is an absolute, very urgent need. One effort to improve the quality of learning activities is to improve the process of implementing learning in good schools [4]–[6]. Learning is a process of interaction between students and teachers and learning resources in a learning environment. The learning process needs to be planned, implemented, assessed, and supervised so that it is carried out effectively and efficiently. The learning process in each primary and secondary education unit must be interactive, inspiring, fun, challenging and motivating students to participate actively, and provide sufficient space for initiative, creativity and independence in accordance with the talents, interests, and physical and psychological development of students.

Geography subjects are subjects that explain the state of the earth and its contents, so that to study geography subjects it is not enough just to read and memorize, if it is added to the way of teaching teachers who are less varied in using learning methods and media it can cause student learning outcomes not to meet the KKM (Minimum Completeness Criteria).) determined by the school. Many ways are used by teachers to improve learning outcomes, especially in geography subjects, including teachers can take advantage of the facilities that have been provided in schools in delivering material when in class. One of the facilities that can be utilized in teaching and learning activities is in the form of learning media. The presence of learning media in teaching and learning activities is very important, because the position of learning media is as an intermediary between the teacher in conveying material and students in obtaining material.

One of the learning media that can be used in teaching and learning activities is the realia model of learning media. Realia learning media are real objects that are used as materials or learning resources. The use of realia learning media does not have to be presented in a real way in the classroom, but can also be done by inviting students to see (observation) real objects at their location. Although not all real objects can be used as realia media due to limited funds, obtaining permission from the school, provision and time, this realia learning media can be replaced with realia model learning media. Realia models are objects that almost resemble real objects. The use of realia models as media in learning is intended to overcome obstacles in the procurement of realia, such as high prices or objects that are difficult to use as realia.

In this study the researcher chose material about knowing the earth which would be taught using the realia model of learning media. The reason the researcher chose the material about getting to know the earth was first seen from the target of the researchers, namely high school students, their knowledge about getting to know the earth was not broad enough. This can be proven from the low learning outcomes of students. The material about getting to know the earth is material that cannot be explained or conveyed to students by explaining according to the material in the book but it would be easier if this material could be supported by making a realia model of the earth starting from the theory of the creation of planet earth, the motion of the earth's revolution and rotation, the characteristics of the earth's layers and continental drift , and others. Based on the phenomena described above, this study tries to determine the effect of the realia model of learning media on geography learning outcomes in knowing the earth material (Experimental study of class X IIS students at SMA Negeri 22 Jakarta).

2. RESEARCH METHOD

This research is a quantitative research with an experimental approach. The quantitative research method is a researcher's attempt to find knowledge by providing data in the form of numbers[7]–[9]. The researcher controlled for one independent variable, namely the learning media model and observed the dependent variable, namely the learning outcomes using two groups of student studies, where one group was the experimental class which received the treatment of the realia model of learning media, while the other group was the control class.

This research was conducted at SMA Negeri 22 Jakarta, Jalan Kramat Asem Utan Kayu, East Jakarta. The time of this research took place from January to March 2016. The population is all research subjects[10]–[12]. The population used in this study were all class X IIS students at SMA Negeri 22 Jakarta consisting of four classes of 144 students. The sample is a portion taken from the entire object under study and considered as an object that represents the entire population taken based on certain techniques [13], [14]. The sample used in this study was two class X IIS totaling 72 students obtained using the purposive sampling technique. The purposive sampling technique was used on the basis of criteria determined by the researcher.

Data collection techniques and instruments used in this study were in the form of tests. The tests were conducted to find out student learning outcomes, in the form of a multiple-choice written test totaling 24

questions with 5 alternative answers. The learning outcomes tests were carried out twice, namely pre-test and post-test. This pre-test is conducted to determine the level of knowledge that students already have relating to the material to be studied, while the post-test is carried out to determine the success of the learning process, namely to measure the level of mastery of students towards the material that has been studied.

The data analysis techniques used in this research are descriptive statistics and inferential statistics. Descriptive statistical analysis aims to describe or explain the description under study through sample data without conducting analysis and making generally accepted conclusions [15], [16]. Descriptive statistical analysis discusses several matters related to the average (mean), standard deviation, maximum value, minimum value, and the amount of research data. Inferential statistical analysis relates to data analysis for drawing conclusions on data. Inferential statistics used in this study is the T test two paired samples or Paired Sample T-test.

3. RESULTS AND DISCUSSION

3.1 Experiment Class and Control Class Pre-test Results

3.1.1 Experiment Class Pre-test Results

Based on the data collected during the pre-test, the lowest score obtained by students in the experimental class was 25.0 with a score/number of correct questions of 6 questions while the highest score was 79.1 with a score/number of correct questions of 19 questions, from the value of the pretest results obtained a class average of 51.9. It can be seen that the lowest pre-test score obtained by students is 25.0 by 2 people and for the highest score is 79.1 by 2 people out of the total number of students who take the test in the class as many as 36 students. The total test given is 24 questions, students who 16 students answered questions with a total score of less than 50, while 20 other students were able to answer more than half of the test questions correctly.

3.1.2 Control Class Pre-test Results

Based on the data collected during the pre-test, the lowest score obtained by students in the control class was 37.5 with a score/number of correct questions of 9 questions while the highest score was 62.5 with a score/number of correct questions of 15 questions, from the results of the pre-test obtained a class average of 53.6. It can be seen that the lowest pre-test score obtained by students is 37.5 by 1 person and for the highest score is 62.5 by 6 people out of the total number of students who took the test in the class as many as 36 students.

The total test given was 24 questions, students who answered questions with a total score of less than 50 were 6 students, while 30 other students could answer questions correctly more than half of the test questions given. The results of the pre-test value for the Control class were higher than the Experiment class, this was evident from the recommendation of the geography teacher at SMA Negeri 22 Jakarta which was seen based on the scores between these two classes, therefore the researcher chose the Experiment class or class X IIS 1 which was given the realia model learning media treatment.

3.2 Post-test results of Experimental Class and Control Class

3.2.1 Experimental Class Post-test Results

Based on the data during the post-test in the experimental class, the lowest score obtained by students was 50.0 with a score/number of correct questions of 12 questions and the highest score of 95.8 with a score/number of correct questions of 23 questions, the results obtained average -class average of 78.1 (data can be seen in appendices 5 and 6). Based on these data, it can be seen that the average student score has increased between before and after the teaching takes place. If during the pre-test an average of 51.9 was obtained, while during the post-test the average increased to 78.1 with the difference between the average student during the pre-test and the average student during the post-test is 26.2.

It can be seen that the lowest post-test score obtained by students is 50.0 for 1 student and the highest score is 95.8 for 2 students. Judging by the students who scored the most 83.3 as many as 7 students and 87.5 as many as 6 students it means that all students can answer questions correctly more than 12 items which means more than half of the total questions given.

The total post-test questions given to the experimental class are the same as the number of questions during the pre-test, namely 24 questions. From this data it shows that there was an increase in scores between before and after teaching in the experimental class. Where the post-test score is higher when compared to the pre-test value. At the time of the pre-test the highest score of the student was 79.1, then at the time of the post-test the highest score of the student was 95.8, while the lowest score during the pre-test was 25.0 and during the post-test the lowest score of the student was 50.0.

3.2.2 Control Class Post-test results

Based on data during the post-test in the control class, the lowest score obtained by students was 50.0 with a score/number of questions of 12 and the highest score of 83.3 with a score/number of correct questions of 20 questions, from these results the average grade 68.25. (data can be seen in attachments 5 and 6). Based on these data, it can be seen that the average student scores also increased between before and after the teaching

took place, although the increase in scores during the pre-test and post-test was not too high. If at the time of the pre-test the average was 53.6, while at the time of the post-test the average increased to 68.2 with the difference between the average student at the time of the pre-test and the average student at the time of the posttest was 14.6.

It can be seen that the lowest post-test score obtained by students is 50.0 for 1 student while the highest score is 83.3 for 4 students. The highest scores obtained by students were 58.3 and 75.0 by 7 students. From the data above it can be seen that all students were able to answer more than 12 questions correctly, which means almost half of the total questions given.

The total post-test questions given to the experimental class were the same as the number of questions during the pre-test, namely 24 questions. From this data it was shown that there was an increase in scores between before and after teaching in the control class, namely the post-test scores were higher when compared to the pre-test scores. -test. At the time of the pre-test the highest score of the student was 62.5, while at the time of the post-test the highest score of the student was 83.3. The lowest score during the pre-test was 37.5 and during the post-test the lowest score of the student was 50.0. Furthermore, the data prerequisite test was carried out before carrying out the hypothesis test. The results of the normality test of the pre-test and post-test data in the experimental class and control class can be seen in the table below.

Table 1. Normality Test Results

Pre test				
Group	Sample	Significant Level	α	Conclusion
Experiment	36	0,440	0,05	Normal distribution
Control	36	0,053	0,05	Normal distribution
Post test				
Group	Sample	Significant Level	α	Conclusion
Experiment	36	0,440	0,05	Normal distribution
Control	36	0,053	0,05	Normal distribution

Based on the table above, the significance value for the experimental class and control class was obtained at the pre-test and post-test > 0.05 so it can be concluded that the data is normally distributed. Then a homogeneity test was carried out, where the results of the pre-test and post-test homogeneity calculations in the experimental class and control class were shown in the table below.

Table 2. Homogeneity Test Results

Group	Sample	Df	Significant Level	α	Conclusion
Experiment	36	7	0,440	0,05	Homogen
Control	36	7	0,053	0,05	Homogen

Based on the table above, the significance value for the pre-test and post-test for the experimental class is 0.290 and $\alpha 0.05$ means $\text{Sig} (0.290) > \alpha (0.05)$ so that it can be concluded that the pre-test and post-test for the experimental class are homogeneous, while the significance value for the pre-test and post-test for the control class is 0.213 and $\alpha 0.05$, which means $\text{Sig} (0.213) > \alpha 0.05$ so it can be concluded that the pre-test and post-test for the control class are homogeneous.

Based on the results of the calculation of the data requirements test, namely the normality test and homogeneity test, the resulting data in the study were declared to be normally distributed and homogeneous, so that it could proceed to hypothesis testing using the Paired Sample T-test. Based on the calculation results, the value of $-t$ count $< -t$ table ($-12.142 < -2.030$) and $\text{Sig} (2\text{-tailed}) 0.000$ with $\alpha (0.025)$ means that $\text{Sig} (2\text{-tailed}) 0.000 < \alpha (0.025)$ which means H_0 is rejected, thus it can be stated that there is an influence of the realia model of learning media on geography learning outcomes.

In this study, there were two classes that were sampled. First, the experimental class which was a class that received treatment using the realia model of learning media and secondly, the control class which was a class that received treatment using PowerPoint learning media, where the learning media in this control class were media that is often used in learning in schools. The learning method used in both classes, both the experimental class and the control class, is the same, namely the lecture method, it's just that in the experimental class the teacher explains the material more focused by using realia media models compared to using book teaching materials, it's different in the control class the teacher explains material other than using media PowerPoint also uses book teaching materials.

The realia model media used is a three-dimensional media which is a substitute for the real object. The median realia model is made based on the sub-material contained in the subject about the earth where reference sources can be seen based on the theory in geography textbooks, while the PowerPoint media used is in the form of a summary of material about the earth obtained from geography textbooks or from the internet.

In this study, the tests were carried out twice, namely first, the pre-test was given to find out the students' initial abilities before getting treatment. Second, the post-test was given to find out students' abilities after getting treatment. During the pre-test, the average value experimental class students was 51.9, while the average value of students in the control class was 53.6 so that the difference in the average value between the experimental class and the control class during the pre-test was 1.7. After the post-test was carried out with the same number of questions in the experimental class and the control class, it was found that the average score of students in the experimental class was 78.1 and in the control class was 68.2 with the difference in the average value between the experimental class and the class control is 9.9.

Based on the pre-test and post-test value data above, it is known that there was an increase in the average value of student learning outcomes between the experimental class and the control class, where the experimental class experienced an average increase of 26.2 while the control class experienced an average increase - an average of 14.6, thus it can be concluded that the increase in the average value of the experimental class is higher than the increase in the average value of the control class.

This study also explains the results of students' cognitive processes associated with the knowledge dimension which functions to determine the distribution and level of students' cognitive processing abilities with the knowledge dimension in the form of the type of test given to the experimental class and the control class.

In the experimental class, based on data on the results of students' cognitive abilities on the subject of knowing the earth in the experimental class which consists of four dimensions of Knowledge (P) and five dimensions of Cognitive processes (K), it is explained that, in the dimension of factual knowledge there are a total of 8 questions. In the dimension of knowledge factually, the students who answered the pre-test questions with the highest number of correct answers were in the cognitive understanding process (C2) with 35 students correct answers and for the post-test correct answers of 27 students can be shown in question number 7. While the average student score those who answered correctly for question number 7 on the pre-test was 52.7 and the post-test was 78.6. In the cognitive understanding process (C2), there were more correct answers to the pre-test questions than the post-test questions, this was because students found it difficult to understand the questions in the post-test. The pre-test and post-test questions are made differently but have the same meaning, so that students do not understand the questions. So question number 7 is not right on the dimension of factual knowledge which is related to the cognitive process of understanding (C2). Whereas the lowest correct questions in the pre-test were in the cognitive process dimension of remembering (C1) with the number of correct questions of 5 students for the pre-test and for the post-test of 32 students who answered the questions correctly which can be shown in item number 18. The average score -the average of students who answered correctly for question number 18 on the pre-test was 62.4 and the post-test was 80.4. There was an increase from the pre-test and post-test questions, this was because during the pre-test students did not know the meaning of the questions, but after being explained with the realia model learning media students became more understanding of the meaning of the questions. So the realia model media is very appropriate for explaining the purpose of question number 18 and is very appropriate for the dimension of factual knowledge associated with the cognitive process of remembering (C1).

For the dimension of conceptual knowledge there are 9 questions, of the 9 questions the students who answered the pre-test questions with the most correct answers were found in the dimension of cognitive understanding process (C1) as many as 34 students and for the post-test there were 30 students who answered the questions correctly it can be shown at number 23. The average score of students who answered correctly for question number 23 on the pre-test was 51.8 and the post-test was 79.0. In the cognitive understanding process (C1), the correct answers to the pre-test questions were greater than the correct answers to the post-test, this was because students easily understood the pre-test questions by reading material from books when compared to the realia model of learning media. So question number 23 is not right on the dimension of conceptual knowledge which is related to the dimension of understanding cognitive processes (C2). While the students who answered the pre-test questions with the lowest correct answers were found in the cognitive understanding process dimension (C1) of 3 students and for the post-test of 25 students who answered the questions correctly can be shown in question number 19. The average student score who answered correctly to question number 19 on the pre-test was 76.3 and 80.3 in the post test. In the cognitive understanding process (C1) there was an increase between students who answered correctly in the pre-test and post-test, this was due to the sub-material in question number 19 concerning geological times and life history. Students understand this sub-matter better when explained with realia model media, resulting in a fairly high increase from 3 students to 25 students. So question number 19 is very precise on the dimension of conceptual knowledge which is connected with the dimension of cognitive understanding knowledge.

For the dimensions of procedural knowledge, there are 4 questions, of the 4 questions, they are spread over the cognitive process dimensions of applying (C3) and assessing (C5). Of the two dimensions of cognitive process, namely applying (C3) and assessing (C5), there is one dimension in which the dimension has the most and lowest pre-test scores of students who answer correctly, namely in the dimension of applying cognitive process (C3). The students who answered correctly the lowest for the pre-test were 23 students and for the post-

test were 35 students. It can be shown in question number 9. There was an increase between students who answered correctly for the pre-test and post-test on the conceptual knowledge dimension. because for question number 9 it explains about the sub-matter of rotational motion and earth's revolution in which the form of the question is in the form of an experiment using the media model realia. The average score of students who answered correctly in the pre-test was 56.3 and 78.5 in the post-test. So for question number 9 it is very appropriate on the conceptual knowledge dimension which is connected with the applying cognitive process dimension (C3). Whereas for students who answered correctly the most in the pre-test questions were 32 students and for the post-test questions there were 31 students which can be shown in question number 8. There was a decrease between students who answered correctly in the pre-test and post-test, this was due to because question number 8 has a choice of answers that can trap students, so students become less thorough in answering and students also find it difficult to understand the sub-matter in the question even though it has been explained using the realia model of learning media. The average score of students who answered correctly in the pre-test was 52.4 and the post-test was 78.2. So question number 8 is not right on the dimension of conceptual knowledge which is related to the dimension of applying cognitive processes.

For the dimension of metacognitive knowledge, there are 3 questions, of which the 3 questions are spread over the cognitive process dimensions of remembering (C1), analyzing (C4), and assessing (C5). Each of the cognitive process dimensions consists of 1 question. Students who answered the most correct pre-test questions were in the cognitive process dimension of assessing (C5) with 16 correct answers for the pre-test and 32 for the post-test which can be shown in question number 22. There was an increase among students who answered correctly in the pre-test questions. -test and post-test, this is because question number 22 discusses the sub-matter of geology and life history, students understand this sub-matter better by using the media model of realia when compared to students who only read material from textbooks. The average score of students who answered correctly in question number 22 for the pre-test was 58.3 and 79.4 for the post-test. So question number 22 is very appropriate on the dimension of metacognitive knowledge which is associated with the dimension of cognitive process of assessing (C5). Whereas for students who answered correctly the lowest was in the dimension of cognitive process remembering (C1) with the correct answers to the pre-test of 8 students and for the post-test of 36 students who answered correctly can be shown in question number 2. The average value of students who answered correct on question number 2 for the pre-test of 70.8 and the post-test of 78.1. There was an increase between students who answered correctly on the pre-test and post-test, this was because question number 2 discussed the sub-matter of the theory of the occurrence of the solar system which students understood better if explained using realia model learning media. So question number 2 is very precise on the dimension of metacognitive knowledge which is related to the dimensions of the cognitive process of remembering.

In the control class, based on data on the results of students' cognitive abilities on the subject of knowing the earth in the control class which consists of four dimensions of Knowledge (P) and five dimensions of Cognitive processes (K) it is obtained, in the dimension of factual knowledge there are a total of 8 questions. Out of 8 questions on the dimension of factual knowledge, students who answered the pre-test questions with the highest number of correct answers were in the cognitive understanding process (C2) with 36 students correct answers and 34 students correct post-test answers which can be shown in question number 7. The average score the average number of students who answered correctly in question number 7 for the pre-test was 53.6 and 68.7 for the post-test. In the cognitive understanding process (C2), there were more correct answers to the pre-test questions than the post-test questions, this was because students found it difficult to understand the questions in the post-test. The pre-test and post-test questions are made differently but have the same meaning, so that students do not understand the questions. So question number 7 is not right on the dimension of factual knowledge which is related to the cognitive process of understanding (C2). Whereas the lowest correct questions in the pre-test were in the cognitive process dimension of remembering (C1) with the number of correct questions of 3 students for the pre-test and for the post-test of 34 students who answered the questions correctly which can be shown in question number 11. The score the average number of students who answered correctly in question number 11 for the pre-test was 55.5 and 69.2 for the post-test. There was an increase from the pre-test and post-test questions, this was because during the pre-test the students did not know the meaning of the question, but after getting an explanation using PowerPoint media and besides that post-test question number 11 was easier for students to understand . So question number 11 is very precise on the dimension of factual knowledge which is related to the cognitive process of remembering (C1).

For the dimension of conceptual knowledge there are 9 questions, out of the 9 questions the students who answered the pre-test questions with the most correct answers were in the cognitive understanding process dimension (C2) of 35 students and for the post-test of 34 students who answered the questions correctly it can be shown at number 23. The average score of students who answered correctly in question number 23 was 54.1 for the pre-test and 68.8 for the post-test. In the cognitive understanding process (C2), the correct answers to the pre-test questions were greater than the correct answers to the post-test, this was because students easily understood the pre-test questions by reading material from books when compared to PowerPoint media. So question number

23 is not right on the dimension of conceptual knowledge which is related to the dimension of understanding cognitive processes (C2). While the students who answered the pre-test questions with the lowest correct answers were in the cognitive understanding process dimension (C2) of 0 students, meaning that there were no students who answered correctly on this question and for the post-test of 14 students who answered the questions correctly can be show it in question number 19. The average value of students who answered correctly in question number 19 for the pre-test was 0 and the post-test was 71.9. In the cognitive understanding process (c2) there was an increase between students who answered correctly in the pre-test and post-test, this was due to the sub-material in question number 19 concerning geological times and life history. Students understand this sub-material better when explained using powerpoint media and students do not understand this sub-material if they only read from geography textbooks, so that they experience a fairly high increase from 0 students to 14 students. So question number 19 is very precise on the dimension of conceptual knowledge which is connected with the dimension of cognitive understanding knowledge (C2).

For the dimensions of procedural knowledge, there are 4 questions, of the 4 questions, they are spread over the cognitive process dimensions of applying (C3) and assessing (C5). Students who answered correctly were in the lowest applying cognitive knowledge dimension (C3) for the pre-test questions of 28 students and for the post-test of 34 students. It can be shown in question number 8, there was an increase between students who answered correctly for the pre-test and post -test on the dimension of conceptual knowledge, this is because question number 8 explains the sub-matter of rotational motion and earth's revolution, in which the form of the question has answer choices that can make students have more than one answer. The average score of students who answered correctly in question number 8 for the pre-test was 55.1 and the post-test was 68.8. After being explained using PowerPoint as media, students understand more about the sub-material related to question number 8. So for question number 8 it is very appropriate on the conceptual knowledge dimension which is connected with the applying cognitive process dimension (C3). Whereas for students who answered correctly the most in the pre-test questions were 36 students and for the post-test questions there were 28 students which can be shown in question number 17. There was a decrease between students who answered correctly in the pre-test and post-test, this can be because students are less thorough and students do not understand the material about continental drift. The average score of students who answered correctly in question number 17 for the pre-test was 53.6 and the post-test was 68.1. So question number 17 is not right on the dimension of conceptual knowledge which is related to the dimension of applying cognitive processes (C3).

For the dimension of metacognitive knowledge, there are 3 questions, of which the 3 questions are spread over the cognitive process dimensions of remembering (C1), analyzing (C4), and assessing (C5). Each of the cognitive process dimensions consists of 1 question. Students who answered the most correct pre-test questions were in the dimension of cognitive process assessing (C4) with 31 correct answers for the pre-test and 27 for the post-test which can be shown in question number 22. The average score of students who answered correctly on the questions number 22 for the pre-test of 55.0 and the post-test of 70.8. There was a decrease between students who answered correctly on the pre-test and post-test questions, this was because question number 22 discussed the sub-matter of geology and life history, when given an explanation of this sub-matter using PowerPoint media, students did not understand this sub-material, because there are so many sub-materials for geology and the explanation of the material is almost the same so that it can confuse students. So question number 22 is not right on the dimension of metacognitive knowledge which is associated with the dimension of the cognitive process of assessing (C4). Whereas for students who answered correctly the lowest was in the dimension of cognitive process remembering (C1) with the correct answers to the pre-test of 8 students and for the post-test of 22 students who answered correctly can be shown in question number 2. The average value of students who answered correct on question number 2 for the pre-test of 52.0 and the post-test of 69.4. There was an increase between students who answered correctly in the pre-test and post-test, this was because question number 2 discussed the sub-matter of the theory of the occurrence of the solar system in which students understood and were more interested when studying this sub-matter using PowerPoint media. So question number 2 is very precise on the dimension of metacognitive knowledge which is related to the dimensions of the cognitive process of remembering.

At the time of research, the experimental class was more interested in using the realia model media because according to them this realia model media had never been used in learning so this experimental class got better grades than the control class. with control class. After the experimental class received the treatment of the realia model of learning media, what happened was that the learning outcomes of the experimental class were better than the control class.

Realia model learning media has advantages in its use, namely realia model media can be used repeatedly in learning by subject teachers and is easy to store, so it greatly saves the school's budget for providing learning media and enough storage in the cupboards for each class that has been provided by the school. Students understand a material better by using the realia model of learning media, because with this media a material can be explained clearly and in detail step by step, so that the realia model of media is very appropriate for use in learning with the target of students who have different learning styles and achievements.

Based on the results of the research and analysis above, it shows that the learning outcomes of students using the realia model of learning media are higher than the learning outcomes of students using powerpoint media, so it can be said that the use of the realia model of learning media as a medium that is applied to geography subjects recognizes earth is a medium that is quite well used and can provide a very large influence in the teaching-learning process to improve student learning outcomes.

4. CONCLUSION

Based on the results of the study it can be concluded that the realia model media has advantages and disadvantages, namely the advantages of the realia model media are that it can be used repeatedly, is easy to store, and can provide accurate explanations because it can show the process more clearly, so that the material explained by the teacher can be easily understood by students. Meanwhile, the weakness of the realia media model is that sometimes it can give a wrong understanding because the shape, texture and color do not match the original object. Learning outcomes can be influenced by many factors, including learning methods, learning media, student characteristics, and learning environment. In this study, only the learning media used by researchers as one of the factors that can influence learning outcomes. The use of this realia model media can be used in contextual learning, in the implementation of learning the teacher as a learning facilitator must help students to connect between the knowledge they are learning and its application in the real world in everyday life, so this realia model media can have a positive influence on results Study. The results of hypothesis calculations are obtained $-t \text{ count} < -t \text{ table}$ ($-12.142 < -2.030$) and Sig (2-tailed) $0.000 < \alpha$ (0.025), then H_a is accepted, meaning that there is an influence of the realia model learning media on geography learning outcomes in the subject Earth.

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