The Effect Of Project Based Learning Model On Activities And Results Of Social Learning In Class IV Students Of SDN Domas Menganti Gresik

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DOI: 10.29322/IJSRP.9.07.2019.p9157

Abstract- Through the Project Based Learning learning model, it is very helpful for students in receiving material or concepts in learning social studies subjects. Especially for elementary students. Students no longer carry out learning activities as limited as sitting, listening, noting, memorizing and seeming boring. Students will learn more actively and build their own knowledge so that learning is more meaningful. So it is very appropriate and can be the right choice in the elementary school class. Timothy agreed in his literary journal (2014: 46), revealing that project-based learning is feasible to be applied in elementary schools.

Therefore, with several descriptions of existing problems, and the existence of several advantages and characteristics of the research, also several studies conducted by previous researchers succeeded, the researchers will conduct research with the title "The Effect of Project Based Learning Model on Student Social Studies Learning Activities and Results Class IV of SDN Domas Menganti Gresik".

The formulation of the problem that can be taken is how the influence of the Project Based Learning model on social studies learning outcomes of fourth grade students of SDN Domas Menganti Gresik. The purpose of this study is to describe the effect of the Project Based Learning model on social studies learning outcomes of fourth grade students of SDN Domas Menganti Gresik.

Index Terms- Project Based Learning, Activites, Study Result

I. INTRODUCTION

Entering the 21st century, there are still some students who are still not actively developing their potential widely in the learning process. This is motivated by the ongoing learning process. Learning is still a lot of teacher center and textual (textbook), meaning that the main source of student learning is teachers and books (Ika et al., 2016: 3). Ika asserted (2016: 3), through such learning the involvement of students becomes less active and learning becomes less alive because the teacher only transfers what is in the book into the brain of students during learning. Students are not given the opportunity to develop their own knowledge. So that it is less able to provide learning experiences for students. Learning activities are only limited to sitting, listening, noting, and memorizing.

Learning activities like that occur in several subjects, including IPS. The problem is in line with Zemelman, Daniel, & Hyde (in Debora, 2009: 40), that social studies learning in elementary schools tends to teach "cursory coverage of the curriculum, limited memorization of facts, and fixated only on textbooks, reading and examinations". Learning activities that are fixated on books (listening, noting, memorizing) and teacher centered seem boring and cause students to accept and understand a less optimal learning material. Less optimal learning causes students to not be able to develop their thinking skills, so that it will have an impact on the lack of knowledge that can be found by students (Agung, et al, 2013: 2). Finally it affects the learning outcomes.

Constructivist learning is needed, meaning learning that builds knowledge independently or in groups. In line with the opinion of Ilhar in the journal (2014: 488), that constructivist learning causes an increase in academic motivation to develop cognitive abilities in a variety of classes in social studies (IPS). Social Sciences learns many concepts in social problems (Agung, et al, 2013: 1). The concept can be a concept from several scientific disciplines, namely geography, sociology, economics, history, archeology (in elementary education). Building concepts does not have to be memorized, concepts will be more embedded in the brain of students with students discovering and building understanding of the concept (Agung, et al, 2013: 2). In line with Dewey (in Scott and Rudolph, 2009: 117), that learning does not have to be by reading and memorizing, but by doing something, meaning learning is done by building one's own concepts through several activities.

http://dx.doi.org/10.29322/IJSRP.9.07.2019.p9157
Therefore, a learning process is needed that students can find and build students' own understanding of social studies concepts, so that they influence the learning outcomes. Sugiyanto (in Agung, et al., 2013: 2) says that for the understanding and / or learning approach to social phenomena for students it is easier to be presented in an integrated manner, in achieving this important task, the Project Based Learning approach seems to be wrong one of the most effective teaching and learning tools (Diffily in Mehmet, 2005: 549). Project Based Learning is a learning model that emphasizes students in activities to learn contextually by digging information, determining goals where the final learning outcomes of students make products / projects (Sulisworo, 2013: 22). So that through Project Based Learning students no longer learn with a teacher-centered and textual pattern (textbook oriented). Because Project Based Learning puts forward an innovative and student-centered learning process (Djehan, 2014: 4). In this model, teachers are placed as motivators, mentors, and facilitators (Diffly, 2009: 41).

According to Dewey (in Bellanca, 2012: 17) that students in learning must be 'learning while doing'. It means learning is not just listening, reading, writing or just being a recipient of knowledge, but learning can be done by doing something to make it more meaningful. Strengthened with Moursund (in Mehmet, 2005: 550) explains that Project Based Learning focuses on "doing something" rather than "learning about something". In the situation of the Project Based Learning model, students are asked to build their own knowledge, integrate material so that understanding is more comprehensive, and teach problem solving skills (Suprijono in Agung et al, 2013: 72).

International Research from Ilha Ilter of the University of Bayburt, Turkey in 2014 entitled A Study of Efficiency of Project Based Learning on Social Studies: Conceptual Achievement and Academic Motivation states the results that conceptual ability and motivation for student learning can increase with Project Based Learning. In addition, a study from Djehan Nur Mulyani in 2014 entitled Improvement of Learning Outcomes through the Application of Project Based Learning Methods in Class V Students at Al-Syukro Universal Islamic Elementary School in Jakarta, also stated that Social Sciences learning outcomes of Grade V students in Elementary School this can increase after applying the Project Based Learning model.

According to the 2013 Ministry of Education and Culture, there are several advantages of the Project Based Learning model, including: (1) increasing students' ability to solve problems, (2) making students more active, (3) making the learning atmosphere pleasant, (4) increasing students' learning motivation to learn, (6) increasing the ability to work together (collaboration), (7) developing and practicing students in communication skills, (8) involving learning students by integrating knowledge / information with the real world.

Through the Project Based Learning learning model, it is very helpful for students in receiving material or concepts in learning social studies subjects. Especially for elementary students. Students no longer carry out learning activities as limited as sitting, listening, noting, memorizing and seeming boring. Students will learn more actively and build their own knowledge so that learning is more meaningful. So it is very appropriate and can be the right choice in the elementary school class. Timothy agreed in his literary journal (2014: 46), revealing that project-based learning is feasible to be applied in elementary schools.

Therefore, with several descriptions of existing problems, and the existence of several advantages and characteristics of the research, also several studies conducted by previous researchers succeeded, the researchers will conduct research with the title "The Effect of Project Based Learning Model on Student Social Studies Learning Activities and Results Class IV of SDN Domas Menganti Gresik ". The formulation of the problem that can be taken is how the influence of the Project Based Learning model on social studies learning outcomes of fourth grade students of SDN Domas Menganti Gresik. The purpose of this study is to describe the effect of the Project Based Learning model on social studies learning outcomes of fourth grade students of SDN Domas Menganti Gresik.

## II. METHODOLOGY

The type of research carried out is experimental research with the design used is Quasi Experimental or quasi-experimental. The research design used in this study is Non Equivalent Control Group Design, namely the experimental group and the control group cannot be selected randomly or randomly (Sugiyono, 2008: 116).

<table>
<thead>
<tr>
<th>Kelas</th>
<th>Pre test</th>
<th>Perlakuan</th>
<th>Pos test</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>O1</td>
<td>R1</td>
<td>O3</td>
</tr>
<tr>
<td>X2</td>
<td>O2</td>
<td>R2</td>
<td>O4</td>
</tr>
</tbody>
</table>

Information :
X1: Experimental Class
X2: Control Class
R1: Treatment is a project based learning model
R2: The treatment is a conventional model
O1: Pre test experimental class
O2: Pre test control class
O3: Post test experimental class
O4: Control class post test

This research was conducted in the fourth grade of SDN Domas, East Java, Indonesia with a population of all fourth grade students of SDN Domas in grades IVA, IVB, and IVC which totaled 75 students. The researcher chose the sample random sampling technique, in the sampling the researcher mixed the subjects in the population so that all subjects were considered the same. Data collection techniques using tests. Tests are used to measure concept understanding and problem solving skills in this study. The test is done twice, namely before the material is given (pre test) and after learning (post test).

Data analysis techniques in this study through several stages, namely analysis of items and analysis of test results. Butri analysis of the question through validity test using product moment correlation test analysis, then test reliability with spearman brown. For analysis of test results there are several tests, namely normality test, homogeneity test, and T-test test with the help of SPSS 22 application which has a provision that the significance value must be greater than 0.05 (Sig> 0.05) so that the research data will be normal, and homogeneous. The normality test is used to determine whether the sample in the study is normally distributed both in the pre test and post test population values. Homogeneity test is used to determine the group variation between the experimental class and the control class is a homogeneous sample.

Then for the t-test, the statistical technique used to test the significance of the difference in 2 mean fruits derived from two distributions, in this t-test the significance value must be less than 0.05 so that there is an influence in the study or Ha is accepted. And the last test is to calculate the normalized N-Gain value to find out how much influence the use of the concept of time and the chronology of students.

III. RESULT AND DISCUSS

The results of the research study "The Effect of the Project Based Learning Model on the activities and learning outcomes of fourth grade students of SDN Domas Menganti Gresik" can be seen from the findings of the researchers as follows:

Before the research was conducted, a validation test was carried out beforehand on the research instruments that would be used. In the first stage, the items in the test instrument were assessed for validity by the expert lecturer, Drs. Supriyono, M.Pd. as a PGSD lecturer at Surabaya State University. Based on the results of the validation from experts, there are 25 of the 30 questions that should be used, and it can be concluded that the test sheet is feasible to be used with a good predicate.

While in the second stage, the items were validated by using SPSS 22. The test questions were 25 questions which were tested on the fourth grade students of SDN Gemurung Gedangan Sidoarjo with 25 students, and it was found that 25 multiple choice questions were declared valid. Based on the criterion price table list of the product moment with a significance level of 0.05 it is known that the table is 0.396.

After conducting the validation test, then do the reliability test. A test item is said to be reliable if the data shows a measurement that remains the same even though it has been tested twice or more. The testing of the reliability of an item by using an even-numbered Spearman Brown formula. Correlation coefficient criteria (rtable) for multiple choice items using a significance level of 5%. If the reliability index value (r11) of the calculation results using SPSS 22 is greater than rtable (r11> rtable), then the item item is declared reliable.

Table 2. Results of Problem Reliability with SPSS 22

<table>
<thead>
<tr>
<th>Reliability Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach’s Alpha</td>
</tr>
<tr>
<td>N of Items</td>
</tr>
</tbody>
</table>

The above table can be seen that from the multiple choice questions the results of the reliability value of the problem r count are 0.960 while the table is 0 from N = 25 at the significance level of 5%, then rxx> rtable, which is 0.960> 0.396 so the test instrument is said to be reliable.

The next step is analyzing the research data, namely by the normality test. The normality test is done to find out whether the population in the study is normally distributed or not. In this study the Kolmogorov Smirnov formula was used and used SPSS 22.

Table 3 Normality Test Results of the Pretest Control Class

<table>
<thead>
<tr>
<th>One-Sample Kolmogorov-Smirnov Test</th>
<th>Pretest_KK</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>32</td>
</tr>
<tr>
<td>Normal Parameters</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Absolute</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>1.165</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.139</td>
</tr>
</tbody>
</table>
Based on table 3, it can be seen that the calculation of normality in the significance column obtained a value of 0.139 in the control class and in table 4, the experimental class obtained a value of 0.507. Both of these significance values are greater than 0.05. This means that samples from both groups came from populations that were normally distributed.

Table 5 Normality Test Results of the Control Class Posttest Data

Based on table 5, it can be seen that the calculation of normality in the significance column obtained a value of 0.466 in the control class and in table 6 the experimental class obtained a value of 0.289. Both of these significance values are greater than 0.05. This means that samples from both groups came from populations that were normally distributed.

The next step is the homogeneity test. The aim is to determine the group variance in the experimental class and the control class. Data homogeneity testing was carried out with the help of SPSS 22.
Table 7 Pretest Data Homogeneity Test Results

<table>
<thead>
<tr>
<th>Test of Homogeneity of Variances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
</tr>
<tr>
<td>Levene Statistic</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>1.177</td>
</tr>
</tbody>
</table>

Based on table 7, a significance value of 0.329 is obtained which means that the significance is greater than 0.05. This means that the variants of the two groups are homogeneous.

Table 8 Posttest Data Homogeneity Test Results

<table>
<thead>
<tr>
<th>Test of Homogeneity of Variances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
</tr>
<tr>
<td>Levene Statistic</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>0.696</td>
</tr>
</tbody>
</table>

Based on table 8, it can be seen that the homogeneity calculation in the significance column obtained a value of 0.629 which means that the significance is greater than 0.05. This means that the variants of the two groups are homogeneous.

After the data is said to be normal and homogeneous, the next step is to test hypotheses. Testing this hypothesis is intended to test whether the hypothesis that has been proposed by the researcher is accepted or rejected, in other words Ha is accepted and Ho is rejected. This test uses the Independent Sample T-Test, with the help of SPSS 22. The results of the calculation of t-test analysis can be seen in the following table.

Table 9 T-Test Test Results

<table>
<thead>
<tr>
<th>Group Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

Table 10 T-Test Test Results (Independent Sample Test)

Based on table 9, it is known that the difference in the average learning outcomes of the control class is 70.25 while the difference in the average learning outcomes of the experimental class is 86.06. This proves that the learning outcomes in the experimental class are greater than the control class.

While the chest table 10 can be seen that the significance test of the F test is obtained 0.069 Thus the significance is greater than 0.05 (0.069> 0.05) then Ha is accepted. So, it can be concluded that the groups of pre test and post test values in the control and experimental classes have the same variant, so the t test uses Equal Variances Assumed.

From table 10, it is found that tcount is -10.680 while t table can be seen in the statistical table at the significance of 0.05: 2 = 0.025 with the degree of freedom (df) n-2 that is 63-2 = 61, the results obtained for t table are 1.999. If thitung is negative: there is a significant difference if tcount <t table. Tcount <t table (-10.680 <1.999) and significance less than 0.05 (0,000 <0,05) then Ho is rejected Ha accepted. So it can be concluded, that there is an effect of student learning outcomes using the Project Based Learning.
model in class IV of Punggul 1 Elementary School 1 Gedangan Sidoarjo. Besides the difference in the average learning outcomes (mean) of the experimental class that applies the Project Based Learning learning model in the learning process is better than the learning outcomes of the control class which is a conventional learning model or direct learning model.

Furthermore, the centralized N-Gain test is used to determine the effect caused by the use of the Project Based Learning model. The following table shows the calculation of the average N-Gain.

<table>
<thead>
<tr>
<th>Class</th>
<th>N-Gain</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>0.4</td>
<td>Middle</td>
</tr>
<tr>
<td>Experiment</td>
<td>0.7</td>
<td>High</td>
</tr>
</tbody>
</table>

From table 11 it is known that the average N-Gain score in the control class group is 0.4 with a moderate category, and the experimental class group score is 0.7 with a high category. So that it can be concluded that there is a significant increase in the presence of learning using the Project Based Learning model compared to the control class that uses conventional learning models. The average results obtained by students, can be seen in the diagram below.

Based on diagram 1 shows that the average value of the pretest and posttest of both groups experienced an increase both from the control class and the experimental class. In the control class, the average score obtained by students is low compared to the experimental class. The pretest value of the control class students is categorized as low, because students when working on the pretest problem still do not know the learning material that will be delivered. Because the purpose of the pretest is to know the students’ initial abilities before being given treatment. After students are given treatment, in this case using a conventional learning model, the control class students experience an increase in the average value of learning outcomes, but the increase is not significant, there are still many students who get scores below the KKM, which is below 75 and low, so students in the control class received the average posttest score with the moderate category.

As for the experimental class, students initially get the same pretest value as the pretest of the control class, which is in the low category. However, after being given treatment, the experimental class experienced a significant increase with a very good posttest average. When compared with the results of the low category control posttest, this proves that giving treatment using the Project Based Learning learning model can significantly improve the learning outcomes of class IV-B students in Domas Menganti Gresik Elementary School.

During the research phase, this research was conducted in the control class and experimental class. Before conducting research, researchers approach students with the aim that students get used to the existence of researchers so students do not feel afraid and awkward when dealing with researchers. The researcher approached the method by helping to fill the learning when the teacher was unable to attend, when the hours were empty, rest could interact with students in the control class and the experimental class.

On 25-28 a study was conducted at Domas Menganti Gresik Elementary School in Sidoarjo. On July 25, the pretest was conducted in the experimental class and in the control class to determine the students' initial ability before being given treatment, followed by learning or giving treatment to the IVA class as the control class and IVB class as the experimental class until the 27th. And after being given treatment to the two classes, on July 27 the posttest in the control class was held and on the 28th in the experimental class to determine the ability of student learning outcomes.

In this study, the initial learning conditions of students were not able to understand the Cooperative material, because students still did not get the lesson about the Cooperative material. This can be proven through the results of the pretest of both groups, both experimental and control classes. The average results of the pretest of the two groups still reached low scores. In this case the students' understanding of the Cooperative material is less than optimal.

The learning process in this study was conducted during 4 meetings. Conducted in class IVA as the control class and class IVB as the experimental class. The learning material used is about Cooperative material in Improving Community Welfare. With the existence of this learning material students are expected to be able to know the meaning of cooperatives and apply them in community...
life later. This research was conducted during 4 meetings or learning in both the experimental and control classes so that there were no factors that disrupted the research process in the two groups so that they could produce a maximum result.

In control class learning, on the first day students do a pretest to find out the students’ initial knowledge, followed by learning about Cooperative material in Community Welfare, it takes place every day until the third day, where on the fourth day students get a posttest. In the learning conditions, students are treated by using direct learning models, teachers here as centers or teacher centered and textual (textbook), meaning that the main source of student learning is teachers and books (Ika et al., 2016: 3). The teacher only gives a glimpse of the material from the existing curriculum. In learning this control class, students only read the text of the reading book, listen to what the teacher explains, record what the teacher writes on the board, and memorize the material. In short, learning activities are only limited to sitting, listening, noting, and memorizing. So that student involvement becomes less active (passive).

Whereas in the experimental class, this was also done on the same day, where on the first day students did a pretest to find out students’ initial knowledge, followed by learning about Cooperative material in Improving Community Welfare, it took place every day until the third day, where at fourth day students get a posttest.

In the learning process using the Project Based Learning model students feel happy with the learning, because students do a learning activity that is starting by visiting a school cooperative, practicing a meaning and provision of Cooperative material in Improving Community Welfare, namely students practice how to become members of cooperatives, how being a member of a cooperative and a way to buy goods in the cooperative, cooperatives sell anything, and up to member meetings in cooperatives. Where at the end of learning is applied with a learning product where the product can be a medium for students in receiving learning materials, namely in the form of making and scrapbook. The learning is in accordance with the opinion of Agung, et al. (2013: 2), that constructing concepts does not have to memorize, concepts will be more embedded in the brain of students with students discovering and building understanding of the concept.

In this learning students become active, the teacher is only a facilitator, mentor, and motivator. In accordance with the concept of Diffly (2009: 41), which explains that in the Project Based Learning student model will be the center of learning (student centered), the teacher only becomes a motivator, mentor, and facilitator, meaning students are given the opportunity to work autonomously to construct learning. Students learn by finding their own knowledge of understanding the concepts of social studies material that is being studied. In other words, students build their own knowledge (constructivist).

This strongly shows that after this research has been carried out it has been proven that a theory related to the results of research is in harmony with research. Among them, according to Dewey (in Bellanca, 2012: 17) that students in learning must be ‘learning while doing’. It means learning is not just listening, reading, writing or just being a recipient of knowledge, but learning can be done by doing something to make it more meaningful. Strengthened with Moursund (in Mehmet, 2005: 550) explains that Project Based Learning focuses on “doing something” rather than “learning about something”. So this model prioritizes students constructivist learning or building their own knowledge. In accordance with Ilhar’s opinion in the journal (2014: 488), one of the popular approaches to constructivist methods is Project Based Learning.

These theories are in line with the results of research (real world practice) shown from the implementation observation sheet of this study, namely from IVB class teachers as an experimental class, Ms. Yustu Nawangtari, S.Pd and colleagues and observers from the PGSD department, Dita Fathicoult Imron, he found that this learning model makes students more active, interested and enthusiastic about learning, builds their own knowledge, students learn material while doing so that students are not bored with the learning material learned, because learning is more meaningful and fun for students.

This research focused on student learning outcomes in Cooperative material in Improving Community Welfare. Learning outcomes obtained from the results of posttest students after receiving learning or receiving treatment. Other contributions contained in this study aside from focusing on student learning outcomes, namely regarding mastery of cooperative material in improving community welfare. In this study presents a new learning model, which is akif, creative, innovative, learning model that developed in the 21st century, namely the Project Based Learning model. So this learning model is highly recommended for use today, the 21st century. This is in accordance with the opinion of Bender (2015: 2), explaining that Project Based Learning seems to be very appropriate to be the main model of 21st century teaching because the instructional approach is based and educators are advised to follow this innovative approach to teaching. Reaffirmed by Blumenfeld, et al. (In Jill and Gina, 2013: 3), that Project Based Learning enables students to take an active role in developing 21st century skills, which encourage high curiosity for knowledge. So it can be concluded that the Project Based Learning model is a very effective learning model when applied in learning in the 21st century.

IV. CONCLUSION

Based on the results of the research and discussion in chapter IV, it can be concluded that the Project Based Learning learning model influences the learning outcomes of fourth grade students of Domas Elementary School Menganti Gresik. This is evidenced by the results of the calculation of hypothesis testing using the Independent Sample T-Test formula. The results of the effect test were obtained after the treatment in the experimental class. From the calculation of the hypothesis test results obtained tcount < ttable, with a significance greater than the specified significance, then Ho is rejected and Ha is accepted. This means that there is a significant effect on the posttest value of class IV B students of Domas. So that it can be concluded that the Project Based Learning model influences the activities and learning outcomes of fourth grade students of SDN Domas Menganti Gresik, which means Ha is accepted and Ho is rejected.

http://dx.doi.org/10.29322/IJSRP.9.07.2019.p9157
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