Effectiveness of Explicit Learning Instruction Methods and Varied Lectures Based on Students’ Learning Outcomes

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Abstract—This study aims to find out which one is more effective between Explicit Learning Instruction (experimental group) and learning using varied lecture (control group) method on students’ learning outcomes of Social Sciences subjects. The subject of the research was the students of grade VII SMPIT Insan Permata Bojonegoro. Data of learning result from two groups were analyzed by t-test with significance level of 0.05. It was obtained the value of formative test in experimental group as many as 80, 12, while the value of formative test in the control group that is as many as 68.5. The results of this study indicate that there are significant differences in learning outcomes between groups of students who studied with the Explicit Instruction method and the varied lecture (p = 0.020). It can be concluded that the learning outcomes of students who are taught by using the Explicit Instruction method are more effective than students who are taught by using varied lecture method.

Keywords—Explicit Instruction; Learning Outcomes

I. INTRODUCTION

The main problem of the low quality of learning conducted by teachers in schools in general is clear enough that the mastery of students to the lesson materials is still very far from the expectation. Based on observations that were done the targeted field, both observations of student learning outcomes in the lessons of social studies and learning observations in the classroom has a distinctive feature. It was found such case in SMPIT Insan Permata Bojonegoro that the students cannot answer any questions asked by the teacher either before the learning activities or after completion the process of learning activities.

Factors causing the low quality of learning based on the results of initial observation are the lack of encouragement and students’ motivation in learning. Moreover, it is caused by the method used by the teacher in each learning activity which is only the method of lecturing and assignment. In addition it is also caused by the subject matter which is not delivered chronologically so that they are bored. They are all affecting the quality of learning that produced very low grade especially in the subjects of Social Sciences. The average value of social science subject was 51,00, far from the expected value of 75. From the data obtained, it shows that the achievement of students of class VII SMPIT Insan Permata Bojonegoro is still relatively low. Minimum Completeness Criteria (KKM) in SMPIT Insan Permata for Social Sciences subjects is 75 so there needs to be a solution to solve the problem.

An effort made to overcome the above problems and to achieve the goal of education is very important and it is expected that teachers have the appropriate learning model which is in accordance with the concepts of the subjects that will be delivered. For that reason, it needs an effort in order improve the quality of education and teaching, one of which is by choosing a strategy or a way of delivering the subject matter in order to obtain student achievement, especially Social Sciences lesson. For example, it can be done by guiding students to be actively involved in the learning process that enable to help students developing their intellectual to strengthen their understanding of the concepts taught.

Based on the above problem, it can be concluded that the student learning outcomes in Social Sciences lessons can be improved by using learning models that employing the interest and fun concepts for both teachers and students. The concept is by applying the Explicit Instruction Learning Model.

Explicit Instruction model is one of the learning models that emphasize the approach of teachers and students in a personal way. It functions to deliver better understanding about the material taught with the guidance of teachers [1][2]. This model was first introduced by Rosenshine and Steven (1986). The Explicit Instruction Model or a special direct learning model is designed to develop student learning about procedural and declarative knowledge that can be taught step-by-step. This brings students to get closer to the teacher internally so they are not ashamed of asking questions about things they do not understand [3]. So this learning model is very suitable to be applied in certain class which enables students to urge their knowledge so that the thinking process will follow such procedural skill and all students will be actively involved.
Arends (2001) mentions the theory underlying this model covering behavioral theory, teacher activity research, and social learning theory. The steps of the Explicit Instruction learning model are as follows: (1) The teacher conveying the goals and preparing the students, (2) The teacher demonstrating knowledge and skills, (3) Teachers guiding students in training, (4) The teacher providing an opportunity for follow-up the exercises [4].

According to Muijs and Reynolds, a number of elements in direct teaching cover things such as: 1) well instructed whole lesson, learning objectives explanation, and emphasizing and summarizing the main points at the end of the lesson, 2) presenting material in the form of small steps, mastering the steps by students, 3) proper and clear instruction in every steps [5].

Explicit Instruction learning model is a type of learning model that is very suitable to be applied to the theme of space and time connectivity [6]. The purpose of learning by employing explicit instruction model in social science subjects is to make students understand and recognize the knowledge as a whole and active in learning.

The main problem in this research is the low achievement of student learning result in Social Sciences subject in class VII SMPIT Insan Permata Bojonegoro. The purpose of research that has been implemented is to improve students' learning outcomes of their Social Sciences subjects on "space and time connectivity" materials using explicit instruction model.

Explicit Instruction can improve certain basic abilities [5]. Based on the above description, this study is focused to know the difference effectiveness between Explicit Instruction learning methods (experimental group) and learning using varied lecture method (control group) on student learning outcomes.

II. METHOD

The subject of this research was the second year students of VII second grade SMPIT Insan Permata Bojonegoro academic year 2017/2018. The subjects were divided into two classes: experimental class applying the Explicit Instruction model consisting of 28 students (class VII A), and the control class that did not apply the Explicit Instruction model consisting of 30 students (class VII B). The sample was taken by cluster random sampling technique, as a means of taking the class randomly by drawing from the population which is assumed to be normally distributed and in a homogeneous state.

The design of this study used one group that received treatment as an experimental class, namely using the Explicit Instruction model, while the other group was as a control class. This design can be described as follows:

\[ O_1 \]  \[ X_1 \]  \[ O_2 \]
\[ O_3 \]  \[ X_2 \]  \[ O_4 \]

O1 = pretest grade of the experiment class
O2 = Posttest grade of experiment class
O3 = pretest value of the control class
O4 = Posttest grade of control class
X1 = Explicit Instruction model
X2 = without applying the Explicit Instruction model

The instrument used in this study was a test instrument. The test used was a description test. Analysis of test results of research instrument covered content validity, reliability, level problem and differentiator power problem. In first stage, it was conducted the study data analyzed which was as the final exam results of Social Sciences subjects. The step in the initial phase analysis was the initial data balance test. Based on the test, the experimental group and the control group are in balance.

After the two samples were treated differently, a formative test was performed. The result of the formative test as the parent data to determine the normality test and backward test of two variants (homogeneity) was then done. Based on these tests, the experimental group and the control group were normal and in homogeneous distributions. Then, the test hypothesis (independent sample t test) was performed.

III. RESULTS AND DISCUSSION

A. Result

Here are the test results in the experiment class:

<table>
<thead>
<tr>
<th>Category</th>
<th>Pretest Value</th>
<th>Posttest Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>51,20</td>
<td>80,12</td>
</tr>
</tbody>
</table>

Data Source: Primary Data 2017

Based on table I above, it can be seen that the pretest grade of the experimental class is 51.20. In the result of the experimental class the posttest got the average value as many as 80.12.

Here are the test results in the control class:

<table>
<thead>
<tr>
<th>Category</th>
<th>Pretest Value</th>
<th>Posttest Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>50,8</td>
<td>68,5</td>
</tr>
</tbody>
</table>

Data Source: Primary Data 2017

Based on table II above, it can be seen that the average pretest grade control grade is 50.8. In the control class, the posttest got the average value of 68.5.

The next stage, after categorizing the pretest and posttest value, an analysis was conducted to determine whether there is a significant difference between the pretest and posttest values in the experimental class and control class.

1) Test Data Normality

The Kolmogorov-Smirnov value for the pretest value in the experimental class is 0.218 with a probability significance of 0.200 and its value> 0.05. This means that H0 is accepted
or the pretest value was normally distributed. The Kolmogorov-Smirnov value for the posttest value in the experimental class is 0.129 with a probability significance of 0.184 and the value > 0.05. This means that H0 is accepted or the posttest value was normally distributed.

The Kolmogorov-Smirnov value for the pretest value in the control class is 0.125 with a probability significance of 0.200 and its value > 0.05. This means that H0 is accepted or the pretest value was normally distributed. The Kolmogorov-Smirnov value for the posttest value of the control class is 0.152 with a probability significance of 0.089 and a value of 0.05 which means that H0 is accepted or the posttest value was normally distributed.

2) Test Data Homogeneity

The result of levene test at pretest value shows the value of 0.341 with significance of 0.561 > 0.05 (p > 0.05) which means that H0 is accepted so that the variance is the same or homogeneous. The levene test result on the posttest value shows a value of 1.997 with a significance of 0.162 > 0.05 (p > 0.05) which means that H0 is accepted so that the variance is equal or homogeneous.

3) Independent Sample t-Test

Based on the result of independent sample t test, pretest value data is known for its probability significance as 0.367 > 0.05 which means that H0 is rejected and H1 is accepted, so it can be concluded that there is no significant difference between pretest value of experimental class and control class.

Based on the results of the independent sample t test, the value of posttest is known for its probability significance as 0.020 <0.05 which means that H0 is accepted and H1 is rejected, so it can be concluded that there is a significant difference between posttest grade experimental class with control class.

B. Discussion

Student learning outcomes consist of pretest and posttest values in the experimental class and control class. Based on the average posttest result in experimental class it was obtained the values 80, 12 and control class 68, 5 respectively. The average value of classical completeness in the experimental class was 92% by using explicit instruction model, while the average classical control class value was 78, 94%, (30 learners, and 8 students were unfinished). The average value of classical completeness experimental class is higher than the control class, with the difference 13.36%.

The use of explicit instruction model in learning emphasizes the experience of learners through listening and writing activities, so that it requires full concentration during the learning process. Slameto (2015: 86) suggests that the concentration of the mind on a matter by way of excluding other things is important to be concerned. Learners who use explicit instruction model are guided to focus on their concentration of the material being studied, so that learners can more easily absorb the knowledge of the material they learn. Learners who are able to concentrate and understand the material taught will get better learning outcomes [7].

Based on the above explanation, it can be concluded that the learning by using explicit instruction model is more effective in improving learning outcomes of learners compared to classes that implement learning that did not use explicit instruction. This is reinforced by the findings of Iwai [8] & Ashdown & Bernard [9] & Marin & Halpern [10], who confirms that the application of the explicit instruction model has a positive impact on improving learning outcomes.

The use of explicit instruction model seeks to maximize the use of student learning time, while the impact of teaching is the achievement of academic content completeness and skills. It can also increase students’ learning motivation and improve their ability [11][12].

The explicit instruction model provides students with learning opportunities by selectively observing, recalling and mimicking what the teachers do [13]. Therefore, the important thing to be considered in applying the explicit instruction model is to avoid conveying knowledge that is too complex. In addition, the explicit instruction model emphasizes the declarative approach with emphasizes on conceptual learning and motor skills, that create a more structured learning atmosphere. Teachers use explicit instruction model to identify the learning objectives, material structure, and basic skills to be taught. It, moreover teachers, have responsibility to provide modeling or demonstration, give students the opportunity to practice applying the concepts or skills they have learned, and provide feedback.

Explicit instruction strategy is determined by teacher, meaning that teachers play an important and dominant role in the learning process [14]. This refers to the teaching style in which teachers are actively involved in carrying out the content of the lesson to the student and teaching it to all students in the class. According to Silberman, explicit instruction strategy through active knowledge is a way to introduce students the subject matter that will be taught [15].

Explicit instruction makes students to become more active because they are directly involved in the learning process. The atmosphere of teaching and learning is fun so that they will easily master the concepts and will be able to improve their understanding of the material learned. They will also receive the meaningful lessons because they find their own answers to the problems, and this is a central principle in the learning process [16][17].

Based on the results of research, it can be argued that by applying explicit instruction model of learning students perform better understand and are active in answering any questions given by teachers. Therefore, in the learning activities teachers should use the usual learning model to make students active, so that students are not just silent and listen in following the learning that tends to make students become bored and passive. According to Archer & Hughes, the implementation of the explicit instruction model adds the
skills of teachers in teaching so that students will be more able to absorb and understand the subject matter[18].

IV. CONCLUSION

Based on the results and discussion, it can be concluded that students’ learning outcomes in Social Sciences lessons is improved by using learning models that use interesting conditions and fun for teachers and students. Thanks to the application of Explicit Instruction Model which enables such achievement. The Explicit Instruction model is based on students' ability to assimilate information through listening, observing and taking notes. Because not all students have these things, teachers have to teach and fully demonstrate those things to students.

REFERENCES