The Correlation of Learning Dependence and Creativity with Learning Achievement in Social Science

1Isa Ansori, 1Indah MuslimatunDewi, 1Farid Ahmadi ,1Fathurrahman, 2Intan Permata Hapsari

Abstract---This study aims to test the correlation of learning independence and creativity with learning achievement in social science of the fourth graders at SDN Gugus Dwija Harapan Semarang. This study was a correlational study employing a quantitative type. The techniques of data collection were interview, questionnaire, and documentation. The data analysis of this study was descriptive analysis, prerequisite test analysis, and hypothesis test. The results showed that there was a positive and significant correlation of learning independence with learning achievement of social science of the fourth graders SDN Gugus Dwija Harapan Semarang, which was indicated by \( r=0.785 \) with the significance less than 0.05, there was a positive and significant correlation of creativity with learning outcomes of social sciences, indicated by \( r=0.718 \) with the significance less than 0.05, there was a positive and significant correlation of learning dependence and creativity with learning achievement of social sciences, indicated by \( r=0.851 \) with the significance less than 0.05. Based on the research data, learning independence and creativity are factors affecting students’ achievement in social sciences.

Keywords---learning independence, creativity, learning achievement.

I. INTRODUCTION

The goal of education is to develop abilities and create characters and dignified nation to educate national life, and to develop students’ potential. Achieving educational goals can be accomplished in various ways, one of which is through the learning process. Good learning is not only limited to transferring the materials but also focuses on building and developing character values of the students. Building students’ characters can be done in daily learning through character education. The purpose of character education is to improve the quality of the implementation and educational outcomes at schools that lead to the achievement of character building or noble characters of students as a whole (Daryanto, 2013: 45). Character education can be integrated with all learning contents at schools, one of them in learning Social Sciences.

Based on the interview results with fourth grade teachers at SDN Gugus Dwija Harapan, several problems were found related to the building and developing students’ characters. Learning independence of the fourth graders is not really good and considered low, and the level of student creativity in social studies is not optimal. Character values that need to be developed at the elementary school level include being independent and creative. Independent is an attitude and behavior that does not easily depend on others in completing tasks (Daryanto, 2013: 70). Students

11Faculty of Education, Universitas Negeri Semarang, Sekaran Gunungpati Semarang, Indonesia.
2English Department, Faculty of Languages and Arts, Universitas Negeri Semarang, Sekaran Gunungpati Semarang, Indonesia
Email: isaansori@mail.unnes.ac.id
who can complete their tasks are expected to get good learning achievements. Students need to find and solve a problem independently because it will be easier to improve learning achievement (Rifa'i, 2012: 83-85). Moreover, creative is thinking and doing something to produce a new procedure or result from the existing thing (Daryanto, 2013: 70). Creative students have many ideas that will facilitate them in solving a problem to improve learning achievement. This is in line with the explanation that creativity is a predictor of school achievement as well as inelegancy (Munandar, 2014: 9). Therefore, independent and creative values need to be developed because they affect the improvement of students' learning achievement.

Building characters is expected to make students, as the nation's successors, intelligent and have good characters (Nadaraj, 2014). Smart students will have good learning achievements, which is indicated by fulfilling Minimum Mastery Criteria (KKM) in each assessment of learning content. However, not all students in every class can meet the Minimum Mastery Criteria. It was found by the researchers when conducting interviews. This problem was also identified when the researchers conducted interviews with the fourth-grade teachers of SDN in DwijaHarapan Cluster, Mijen, Semarang.

The research that supports this current study is the one conducted by AstutiPrasetyaningsih in 2012 entitled "The Correlation of Learning Independence and Educative Interaction with Social Studies Achievement" in Grade IV of Elementary Schools in Purworejo". The results showed that there was a positive and significant correlation between learning independence with learning achievement of social studies of the fourth graders in Purworejo. The increase in learning independence can improve learning achievement of social studies, and the decrease in learning independence can reduce social learning achievement.

Another study was conducted by Eyal Doron in 2016 entitled "Fostering Creativity in School-Aged Children through Perspective Taking and Visual Media Based Short Term Intervention Program". The results showed that the children who participated in the research activity program were significantly higher in the creativity test which had an effect on student achievement.

The study conducted by SyamsuRijal (vol. 3 no. 2 2015) entitled "The Correlation between Attitudes, Learning Independence, and Learning Styles with Student Cognitive Learning Achievement" found the results that (1) there was a positive correlation between students’ learning independence with cognitive learning achievement in Biology, with a correlation value of 0.579. Research conducted by Broadbent, J & W.L Poon in 2015 entitled "Self-Regulated Learning Strategies& Academic Achievement in Online Higher Education Learning Environments: A Systematic Review" showed that independent learning will affect student learning achievement by helping students to acquire and maintain knowledge in a structured way.

Another study that supports this present study was conducted by Febriastuti, Linuwuh, and Hartono (vol 2 no 1 2013) entitled "Increasing Learning Independence of SMPN 2 Geyer Students through Project Based Inquiry Learning". The results showed that increasing student independence affects students’ learning achievement. Research conducted by Ellen Yates (vol 11 no 1 2016) entitled "Developing Creativity in Early Childhood Studies Students". The results showed that the development of creativity can help students cooperate and make students more focused.

Research conducted by SurniatiChalid and Hesty Rebecca Simorangkir (vol 13 no 25 2015) entitled “The Correlation of Learning Independence and Students’ Learning Interest with Learning Achievement of Grade VII
Students”. The results showed that there was a correlation of learning independence and students’ interest in learning with the learning achievement of the seventh graders at SMP Mardi Lestari Medan.

In general, the problem of this study is whether there is a significant correlation of learning independence, creativity, and learning achievement in social science. The objective of this study is to identify a significant correlation of learning independence, creativity, and learning achievement in Social Science of the Fourth Graders at SDN GugusDwijaHarapan, Mijen, Semarang.

II. RESEARCH METHODS

The type of this study was a correlation study. Correlational study was a study conducted by researchers to find whether there was a correlation between variables and determine how much the correlation of the variables used (Arikunto, 2013: 4). There were three variables of this study, including learning independence (X1) and creativity (X2) as the independent variables and studies achievement of social science (Y) as the dependent variables.

Data collection techniques were techniques or procedure to retrieve data. Data collection techniques were the most important step in research which aimed to obtain the data (Sugiyono, 2015: 308). Without knowing data collection techniques, a researcher will not obtain enough data that fulfilled the data standards. Data collection can be performed in various settings, sources, and procedures. According to Arikunto (2013: 193) there are two data collection techniques; test and non-test techniques. Non-test technique includes questionnaires, interviews, documentation.

The data obtained in this study were analyzed using descriptive analysis and simple regression parametric statistics. Data analysis techniques were divided into two stages, those were prerequisite analysis test to meet the basic assumptions and hypothesis testing using simple regression. The prerequisite test and simple regression test were carried out with SPSS version 21 program. The prerequisite tests included normality, reliability, linearity test, and multicollinearity tests. If the significance value> 0.05, the data were normally distributed. Linearity test was used to find out whether the two variables significantly had a linear correlation. The linearity test was carried out with the Mean >> Test for Linearity test. The decision making for linearity can see in the Deviation from Linearity column, if the significance is> 0.05 the data can be considered linearly related. The multicollinearity test was used to investigate the magnitude of the intercorrelation between free variables. Multicollinearity test was done by using Linear Regression >> Collinearity diagnostics. The decision making for multicollinearity can be seen in the Coefficients column. If the tolerance> 0.1 and VIF <10, there was no multicollinearity problem. Hypothesis testing in this study used simple regression. If the sig value> 0.05, Ho is accepted. If the sig value <0.05 then Ho is rejected.

III. RESULTS AND DISCUSSION

Descriptive Analysis Results

Learning Independence

Based on the results for learning independence variable which were obtained from the questionnaire data of 127 students, the percentage was 84.42%. The results of the study showed that the learning independence variable had a very good category with an average score of 84.42. In a more detail, the categorization of the questionnaire results of learning independence is as follows.
The conclusion from Table 1 was that 71 students (55.91%) had learning independence in the excellent category, and 56 students (44.09%) had learning independence in the good category. Therefore, the independence of learning in grade IV SDN Cluster DwijaHarapan, Mijen, Semarang was in the very good category which meant students already had high independence in learning.

**Creativity**

Based on the results for creativity variable which were obtained from the questionnaire data of 127 students, the percentage was 88.95%. The results of the study showed that creativity variable had an excellent category with a mean of 88.95. In a more detail, the categorization of the questionnaire results of creativity is as follows.

The conclusion from Table 2 was that 113 students (88.98%) had creativity in the excellent category, and 14 students (11.02%) had creativity in the good category. Therefore, the creativity of the fourth graders at SDN Cluster DwijaHarapan, Mijen, Semarang was in the excellent category which meant students already had creativity.

**Learning Achievement in Social Science**

Based on the results of the percentage descriptive for the learning achievement variable which were obtained from the documentation of the mid-term test score in the even semester in Social Science subject of the fourth grade students at SDN Cluster DwijaHarapan, Mijen, Semarang, the average percentage was 81.94%. In a more detail, the categorization of the questionnaire results of creativity is as follows.
Table 3: Frequency Distribution of Learning Achievement Data in Social Science

<table>
<thead>
<tr>
<th>Score Interval</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>86-100</td>
<td>Excellent</td>
<td>25</td>
<td>19.69</td>
<td></td>
</tr>
<tr>
<td>71-85</td>
<td>Good</td>
<td>102</td>
<td>80.31</td>
<td>81.94</td>
</tr>
<tr>
<td>56-70</td>
<td>Fair</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>≤ 55</td>
<td>Less</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Source: research data processing results in 2018

The conclusion from table 3 was that 25 students (19.69%) obtained learning achievement in the mid-term test with the excellent category, and 102 students (80.31%) obtained learning achievement in the mid-term test with the good category. Therefore, it can be concluded that the learning achievement in mid-term test score in the even semester in Social Science subject of the fourth graders at SDN Cluster DwijaHarapan, Mijen, Semarang, was in good category.

Prerequisite Test Results

Normality Test

Based on the results of the normality test, it obtained the probability value for the learning independence variable 1.697, creativity variable 1.315, and learning achievement variable 3.561. All three research variables had probability values > 0.05 which meant that the data were normally distributed.

Linearity Test

Based on the linearity test, it obtained significance value of linearity 0.000. Because the significance value was less than 0.005, it can be concluded that the variables of learning independence and creativity with students’ achievement had a linear correlation.

Multicollinearity Test

Based on the results of multicollinearity test, the Tolerance and VIF values of learning independence and creativity were the same, which were 0.672 and 1.487. This showed that there was no multicollinearity issue because the VIF value was not more than 10 and the Tolerance value was above 0.1. From the results of multicollinearity test analysis, it can be concluded that among the independent variables, multicollinearity did not occur.

Hypothesis Testing

Simple correlation analysis of learning independence (X1) and learning achievement (Y)

Simple linear regression analysis was used to determine the correlation of learning independence and learning achievement variables. The results of simple linear regression analysis are shown in the following table.
Table 4: Results of Simple Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>Learning Independence</th>
<th>Learning Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.785**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>127</td>
<td>127</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the coefficients table using SPSS version 21, it showed that the correlation coefficient of learning independence (X1) with learning achievement (Y) was 0.785 and the significance value was 0.000.

A study that supports the results of this study was conducted by Destaria Sudirman (vol. 1 no. 2 of 2017) entitled "The Correlation of Completeness of Learning Resources and Independence of Students With Achievement of Science learning at SMP Negeri 2 Lengayang, Pesisir Selatan" that there was a significant relationship between learning independence and learning achievement where learning independence contributes to the improvement of science learning achievement of students of SMP Negeri 2 Lengayang.

**Simple correlation analysis between creativity (X2) and learning achievement (Y)**

Simple linear regression analysis was used to determine the correlation of creativity and learning achievement variables. The results of the simple linear regression analysis are shown in the following table.

Table 5: Results of Simple Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>Creativity</th>
<th>Learning Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.718**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>127</td>
<td>127</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.718**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>127</td>
<td>127</td>
</tr>
</tbody>
</table>
Based on the coefficients table using SPSS version 21, the correlation coefficient between creativity (X2) learning achievement (Y) was 0.718 and the significance value was 0.000.

Research that supports the results of this study was conducted by AsihRokhaeni, S.Pd.I (vol. 2 no.2 2016) entitled "Increasing Creativity and Achievement in Mathematics Learning Opportunities through the Use of BU KARDU Teaching Aids for Grade XII RPL Students A SMK N Tambarak in the Odd Semester of the 2014/2015 Academic Year "that students' creativity increased after using Bu Kardu's teaching aids which fostered students' mathematics learning achievement.

**Multiple Correlation Analysis**

Multiple linear regression analysis was used to determine the correlation of learning independence variables (X1) and creativity variables (X2) and learning achievement (Y). The results of the simple linear regression analysis are shown in the following table.

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mod</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

Based on the analysis conducted using SPSS program, it obtained a multiple correlation coefficient between learning independence (X1) and creativity (X2) with learning achievement (Y) of 0.851 and a significant test result (F test) of 162.3 was obtained.

The results of this study are in line with the study by Bimbang and Yuskel (vol. 1 no. 3 of 2013) entitled "The Correlation of Students' Creativity and Independence with Learning Achievement in ICT Subjects at SMP Negeri 1 Siau Timur" that students' creativity and independence have a positive correlation to learning achievement. Creativity and independence in learning contribute to the improvement of ICT learning achievement for students of SMP Negeri 1 Siau Timur.

**IV. CONCLUSION**

Based on the results of data analysis and discussion, it can be concluded that (1) there is a positive and significant correlation of learning independence and learning achievements in Social Science of the fourth graders at SDN Gugus Dwija Harapan, Mijen, Semarang. The result is r_count>r_table with a significance level of 0.05 (0.785> 0.176) at the level of a strong correlation so that the hypothesis is accepted, (2) there is a positive and significant correlation of creativity with learning achievement in Social Science of the fourth graders at SDN Gugus Dwija Harapan, Mijen, Semarang. The result is r_count>r_table with a significance level of 0.05 (0.718> 0.176) at the level of a strong correlation so that the hypothesis is accepted, (3) there is a positive and significant correlation of learning independence and creativity with learning achievement in Social Science of the fourth graders at SDN Gugus Dwija Harapan, Mijen, Semarang. The result is r_count>r_table with a significance level of 0.05 (0.851> 0.176) at a very strong correlation level so that the hypothesis is accepted.
ACKNOWLEDGEMENT

The researcher would like to thank both parents who always provide moral, spiritual and material supports, Mitra Bestari I, Dra. Sri Susilaningsih, S.Pd., M.Pd., Mitra Bestari II, Drs. Sutaryono, M.Pd., and supervisor, Drs. Isa Ansori, M.Pd who provided guidance in this research.

REFERENCES


