THE EFFECT OF ENVIRONMENT AND SELF-REGULATED LEARNING ON LEARNING ACHIEVEMENT OF GRADE XI STUDENTS IN ECONOMICS SUBJECTS AT EAST JAKARTA SENIOR HIGH SCHOOL

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Abstract
This study aims to determine the extent to which environment and students’ abilities to self-regulate their learning impact the academic achievement attained by students in the eleventh grade of the East Jakarta Senior High School’s economics programme. The methodology of this study is based on quantitative research and includes survey methods. The sampling technique uses simple random sampling, a random sampling technique by selecting one class XI MIPA and one class XI IPS at each school as a representative sample with a sample of 88 students from 736 students. The data collection technique is in the form of a questionnaire in the form of a closed list of statements via a google form link, documentation, namely data in the form of the number of students and data from the Middle Semester Assessment (PTS) and economics teacher interviews. Data analysis used path analysis with IBM Statistics 25. The results of this study indicate that there is a positive and significant influence between the learning environment on learning achievement as evidenced by the t-count ≥ t-table (3.452 > 1.983), there is a positive effect and powerful between self-regulated learning on learning achievement as evidenced by the value of t-count ≥ t-table (9.616 > 1.983) and there is a positive and significant effect between learning environment on self-regulated learning on learning achievement as evidenced by the weight of t-count ≥ t-table (2.092 > 1.983). Following the analysis presented above, one can reach the following conclusion regarding the relationship between the environment and the ability to self-regulate one’s learning: there is a positive and significant influence.

Keywords: Environment, Self Regulate Learning and Learning Achievement

INTRODUCTION

The progression of the 21st century can mark by the existence of science and technology that advances at such a rapid rate. Students must master 21 crucial skills, such as problem-solving, critical thinking, collaboration, and self-regulated learning (Komara et al., 2021). These skills will create quality learning activities and produce high achievements if students have these skills. Research Firman et al. (2020) say that learning achievement is the learning result of students in learning activities taken from student evaluations. Then this learning achievement can show the quality and graduation students achieve after going through the learning process. Hidayati’s research (2017) says that the measurement of learning achievement can obtain from the Mid-Semester Assessment (PTS) and Final Semester Assessment (PAS).

Measuring learning achievement can be used as a result of teacher evaluation to determine student ability. Based on research by Slameto (2010) that student achievement can influence by two external factors, namely internal factors and external factors. Internal factors come from oneself, self-regulated learning, talents, interests, intelligence, motivation, physical condition, fatigue, and physical exhaustion. Furthermore, external factors come from outside the students themselves, including the
school environment, namely teachers, learning resources, facilities and facilities. The family environment, namely parents and the community environment, namely peers (Hakim & Sulistiawati, 2018). Based on the results of observations, learning achievement is still in the low category because some students have yet to receive grades according to the Maximum Completeness Criteria (KKM) standards. The value determined as the KKM for economic subjects is 75 (seventy-five). The following is a measurement of learning achievement obtained from the Mid-Semester Assessment (PTS) for economics grade XI in the odd semester of the 2021/2022 academic year:

<table>
<thead>
<tr>
<th>No.</th>
<th>Class</th>
<th>Total Students</th>
<th>Grade Average</th>
<th>Students Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Complete</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt; 75</td>
</tr>
<tr>
<td>1.</td>
<td>XI MIPA 1</td>
<td>40</td>
<td>66</td>
<td>28</td>
</tr>
<tr>
<td>2.</td>
<td>XI MIPA 2</td>
<td>40</td>
<td>58</td>
<td>32</td>
</tr>
<tr>
<td>3.</td>
<td>XI MIPA 3</td>
<td>40</td>
<td>68</td>
<td>19</td>
</tr>
<tr>
<td>4.</td>
<td>XI MIPA 4</td>
<td>40</td>
<td>55</td>
<td>36</td>
</tr>
<tr>
<td>5.</td>
<td>XI IPS 1</td>
<td>40</td>
<td>63</td>
<td>22</td>
</tr>
<tr>
<td>6.</td>
<td>XI IPS 2</td>
<td>40</td>
<td>79</td>
<td>9</td>
</tr>
<tr>
<td>7.</td>
<td>XI IPS 3</td>
<td>40</td>
<td>67</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Jumlah</td>
<td>280</td>
<td>65.14</td>
<td>168</td>
</tr>
</tbody>
</table>

Table 1. 1 Average Results of grade XI Economics Subject Values

Sumber: Teacher Secondary Data

Based on table 1.1, the number of students who scored below the KKM or did not complete was far more than those who scored above the KKM or completed. The number of students who get scores below the KKM is around 60% or 168. The number of students who get scores above the KKM is approximately 40% or 112, and the average value of class XI economic subjects is 65.14, which is still below the KKM value. The conclusion is that student learning achievement from PTS scores for economic issues in class XI in the odd semester of the 2021/2022 academic year is still in the low category. The low level of learning achievement is due to the factors that affect learning achievement that has not to obtain optimally, and various obstacles are still find. These factors are internal factors that come from within students, one of which is self-regulated learning and external factors that come from outside students, namely the learning environment. According to Afrinaval & Syamwil (2019), the learning environment is everything that involves students in learning activities if the process of learning activities is conducive so that it can support the achievement of learning objectives and make students more interested and comfortable while studying. The learning environment divides into 3 parts:
the family, school, and community (Yulikasari & Pramusinto, 2016). The family environment is the immediate environment when learning because students first get an education from their parents. The family environment is a place to gather, discuss and share among family members to add insight into the future. A harmonious and pleasant family atmosphere will encourage students to be active and disciplined in learning to achieve high learning outcomes. However, in reality, not all family environments can optimally support student success because students lack parental attention due to limited time and parents' ability to guide children in learning. In addition, another obstacle to learning activities is the need for more facilities to support learning activities, such as mobile phones, laptops and internet networks.

Another learning environment that supports learning is the school environment as a place to guide and train students to develop their potential. In a practical environment, students become productive by thinking creatively and learning activities during learning activities. Therefore, the role of the teacher is needed to create effective and fun learning so that students can easily understand the subject matter (Morgan, 2020). However, the reality is that teachers still carry out monotonous and unvarying learning activities that reduce students' ability to think critically and creatively and solve problems—furthermore, the community environment impact by students' existence and relationships in the community. For example, if students have a good friend environment so that students do assignments on time and often discuss if they have learning difficulties, but some students have a terrible friend environment, so students are not motivated to do challenging assignments, are interdependent in collecting duties and are lazy to go to school.

Other factors that affect learning achievement are internal factors that come from within students, one of which is self-regulated learning. Self-regulated learning makes students not dependent on others, such as studying and doing assignments individually and determining practical ways of learning, so they are active during learning (Koeswanti, 2021). Students are busy because they have studied the material to discuss and repeated it by reading or discussing. Koeswanti's research (2021) says that self-regulated learning is students' ability to carry out self-regulated learning without having to depend on other students and can be responsible for every activity carried out. Students with high self-regulated learning will take advantage of various digital learning resources to make it easier for students to understand the subject matter. One of them is by using learning videos so that they can help students self-regulated learning and can use them anytime and anywhere (Carter et al., 2020). With self-regulated learning, students will try to get exemplary learning achievements. (Dedyerianto, 2020) Low self-regulated learning is due to the lack of students' understanding of the subject, so the level of discipline and responsibility for the tasks is low. The low level of student confidence in their abilities so that when doing assignments or exams, they cheat on other students' answers. It is due to the lack of motivation and self-discipline in learning, thus indicating that the level of self-regulated learning possessed by
students is still low (Pelikan et al., 2021). Everyday self-regulated learning can cause grades to decline and learning achievement to reduce.

**LITERATURE REVIEW**

The word "achievement" comes from the Dutch language, namely prestatie. In Indonesian, the word achievement is the result of effort. The phrase learning can interpret as a process of student efforts to achieve a new behaviour change. The result of one's own experience is to carry out the process of interacting with the environment to produce new ideas that are by what has been learned during the learning process and gain knowledge about habits and attitudes (Rosyid, 2020). Kristiani & Pahlevi's research (2021) states that learning is a process in which students' character changes directly as an increase in understanding, knowledge and thinking power.

Research by Bhure et al. (2021) said that learning achievement is the level of success in studying the subject matter to determine the ability of students to accept, reject and assess the information obtained during the learning process. Furthermore, Bariroh's research (2018) says that learning achievement is a measure of the success of student learning activities in mastering subjects during a specific period seen from the values in these subjects. Learning achievement can also be interpreted as the results students achieve after learning at school and home. Research Firman et al. (2020) define learning achievement as the learning result of students carrying out education based on student learning evaluations. Then learning achievement can show the quality and graduation of student knowledge after going through the learning process. High and low student achievement can determine how much knowledge is mastered by students.

Another study by Rosyid (2020) found that learning achievement is student learning outcomes consisting of cognitive, affective and psychomotor aspects after participating in learning activities that can be measured using test or non-test instruments. Furthermore, Inah & Khairunnisa (2019) said that learning achievement is a learning result obtained from the value of subjects received by students from these results in the form of progress in knowledge, skills and attitudes developed over a specific time. Darmadi's research (2017) defines learning achievement as the results obtained during the learning process so that students can do the tasks given and understand the subject matter according to the set time. Another study by Rohmalina Wahab (2018) defines learning achievement as the level of student success obtained from learning activities that can provide emotional satisfaction and measures through the right tools and tests. Therefore, it is possible to conclude, based on some studies performed, that learning achievement is the result of the efforts obtained by students while participating in learning activities to determine the level of student success as measured through test instruments or non-test instruments to assess the value obtained by students while participating in the learning process based on a predetermined amount of time. This conclusion can reach as a result of the fact that learning achievement is the result of efforts obtained by students during learning activities.
Learning Environment

Johnson & Selvina's research (2018) says that the learning environment is a quiet and comfortable learning place that surrounds students physically and psychologically, which can influence students in terms of personality and concentration. Research conducted by Malik & Rizvi (2018) says the learning environment is a state of the learning process with a unique teaching and learning atmosphere, and there is the interaction between class members. Furthermore, Muhari's research (2015) says that the learning environment is a situation around students that can affect learning activities and student learning outcomes, such as the family environment, school environment, and community environment. According to the findings of Utami's research from 2015, the learning environment defines as a location where learning activities are based on the social environment, the unique atmosphere, and the cultural background. Suppose learning activities run conducive so that they can support the achievement of learning objectives and make students more interested and comfortable when learning. Research Atiya et al. (2017) said that the learning environment is a condition in the school that leads to a teaching, mentoring and training program to help students develop their potential. According to the findings of some studies, it is possible to conclude that the learning environment is a location used to carry out learning activities to make the atmosphere of learning comfortable and enjoyable and so that students can interact with members who are both physically and socially present for those members to have the ability to influence students to achieve learning goals.

Self Regulated Learning

Triana et al.’s research (2022) says that self-regulated comes from the word "self-regulated", which means to stand alone. Therefore, self-regulated learning is a state of self-regulation and self-direction according to the level of development. Furthermore, Roslaini's research (2018) says learning is an effort in the form of extreme action utilizing physical or mental potential. In contrast to the research, Dedyerianto (2020) defines learning as a process that comes from students who interact with the environment to produce cognitive, affective and psychomotor changes.

Research conducted by Jansen et al. (2019) says that self-regulated learning is a learning process by students to carry out learning activities on their own. Research Herwanto et al. (2020) define self-regulated learning as a learning activity carried out by students independently without dependence on others, has a strong will and firm intention and can be responsible for solving learning problems on their own. Koeswanti's research (2021) says that self-regulated learning is the ability of students to carry out their activities without dependence on others to be responsible for every activity. Furthermore, research conducted by Nuritha & Tsurayya (2021) states that self-regulated learning is the ability of students to seek information independently without dependence on information from the teacher and motivate themselves to learn the material without coercion from others.
In line with the experts above, Dedyerianto's research (2020) defines self-regulated learning as the behaviour of students in achieving their desires and not being dependent on others, such as carrying out self-regulated learning activities, doing assignments well and determining the right learning style. Furthermore, the research of Triana et al. (2022) aids that self-regulated learning is a learning activity carried out by students without dependence on others to achieve learning objectives, namely increasing knowledge and applying knowledge to solve problems. The research of Siagian et al. (2020) defines self-regulated learning as the ability of students to manage all learning processes freely in choosing learning resources, planning learning strategies to achieve the learning goals set and daring to take decisions to solve problems in the learning process. Knowles' research (2015) says that self-regulated learning is the ability of students to identify learning needs on their own or without the help of others, develop various learning designs, choose practical learning resources, use appropriate learning methods according to learning styles and assess learning outcomes (Engin, 2021). Based on the research above, it can conclude that self-regulated learning is the ability of students to carry out their activities without having to depend on others, have a confident attitude to solve problems in the learning process, be responsible for every decision taken and assess learning outcomes to determine achievement learning objectives.

METHOD

A quantitative approach is research that uses data from numbers or statements that can be analyzed using statistical analysis. The survey is a research method to find data directly using interviews, documentation or questionnaires. This study uses a quantitative research approach with survey methods. The sampling technique uses simple random sampling, a random sampling technique by selecting one class XI MIPA and one class XI IPS at each school as a representative sample with a sample of 88 students from 736 students. The data collection technique is in the form of a questionnaire in the form of a closed list of statements via a google form link, documentation, namely data in the form of the number of students and data from the Middle Semester Assessment (PTS) and economics teacher interviews. Data analysis using Path Analysis with IBM Statistics 25.

RESULTS AND DISCUSSION

The Effect of Learning Environment on Learning Achievement

Data analysis shows a relationship between the learning environment and academic achievement the test for normality conducted using the One Sample-Kolmogorov-Smirvon Test and the Asymp value. The Sig. (2-tailed) value is 0.200. It follows the criteria if the value of sig (0.200) > 0.05, then the research data is usually distributed. The data distribution spreads around the diagonal line and follows the diagonal direction to meet the normality assumption. In the linearity test, the significance value on Deviation From Linearity is 0.590, and it follows the linearity test criteria if sig (0.590) > 0.05,
then there is a linear relationship between the learning environment and learning achievement. Furthermore, the linearity test can see using the $f$-table and $f$-count values. In this study, the $f$-table is 1.80, and the $f$-count is 0.892. It follows the criteria if $f$-count (0.892) < $f$-table (1.80), then there is a linear relationship between the learning environment and learning achievement.

The results of the research on path analysis obtained path coefficient calculations and structural equations $Y = 0.244 X_1 + 0.680 X_2 + py E_2$. This equation explains the path coefficient value (Beta) of $X_1$ to $X_3$ of 0.244, meaning that for every unit increase in the learning environment, the learning achievement variable increases by 0.244 with the assumption that other exogenous variables from the regression model are significant. In the calculation of the path coefficient test individually or the $T$-test between the Learning Environment ($X_1$) and Learning Achievement ($X_3$) based on the Coefficient table, the $pyx_1$ value is 0.244, causing $pyx_1 > 0$ (the learning environment has a significant effect on learning achievement). The considerable value is 0.001, so the sig value <0.05, then $H_0$ is rejected, and $H_a$ is accepted, which means the path analysis coefficient is significant. Furthermore, the $t$-count value is 3.452, and the $t$-table value can be seen from the $T$ table with ($df = n-k-1 = 88-2-1 = 85$) with a probability value of 0.05 or 5% of 1.983 then $t$-count ≥ $t$-table and $H_0$ are rejected. Finally, $H_a$ is accepted, and it concludes that the learning environment has a positive and significant effect on learning achievement.

Next, test the correlation coefficient to determine the relationship between exogenous and endogenous variables. The correlation value of the learning environment on learning achievement is 0.394. It is in the interval of 0.20 – 0.399, so the relationship between the learning environment and learning achievement is weak. The test of the coefficient of determination seen from the $R$-square value of 0.595 concludes that the relationship between learning environment, self-regulated learning and learning achievement is 59.5%, and the remaining 40.5% is influenced by other factors not examined. The level of relationship between the learning environment, self-regulated learning and learning achievement is quite strong seen from the $R$-value, which is 0.772 in the interval 0.60 - 0.79. The learning environment and self-regulated learning have the freedom to explain learning achievement. Based on all the calculations, it can interpret that the learning environment has a positive and significant effect on learning achievement.

The Effect of Self-Regulated Learning on Learning Achievement

In the linearity test, the significance value of Deviation From Linearity is 0.057. It follows the criteria in linearity testing that if sig > 0.05, there is a linear relationship between self-regulated learning and learning achievement. Furthermore, the $f$-table value is 1.70, and the $f$-count value is 1.651 and follows the criteria in linearity testing that if $f$-count < $f$-table, then there is a linear relationship between self-regulated learning and learning achievement. Furthermore, the research results on path analysis obtained path coefficient calculations and got the structural equation $Y = 0.244 X_1 + 0.680 X_2 + py$
E2. This equation explains the path coefficient value (beta) for X2 to X3 of 0.680, meaning that for every unit increase in self-regulated learning, the learning achievement variable increases by 0.680 with the assumption that other exogenous variables from the regression model are significant.

In the calculation of the path coefficient test individually or the T-test between Self Regulated Learning (X2) and Learning Achievement (X3) based on the Coefficient table, the pyx2 value is 0.680, causing pyx2 > 0 (self-regulated learning has a significant effect on learning achievement). The considerable value is 0.000 so that the sig value <0.05, then H0 is rejected and Ha is accepted, which means the path analysis coefficient is significant. Furthermore, the t-count value in this study is 9.616. The t-table value can be seen from the T table with (df = n-k-1 = 88-2-1 = 85) with a probability value of 0.05 or 5% of 1.983, then t-count ≥ t-table and H0 reject and Ha is accepted. Therefore, it can conclude that self-regulated learning has a positive and significant effect on learning achievement in the correlation coefficient test to determine the magnitude of the relationship between exogenous variables and endogenous variables. The correlation value of self-regulated learning on learning achievement is 0.734. And the value is in the interval 0.60 – 0.79, so the relationship between self-regulated learning and learning achievement is vital. Based on all the calculations, it can interpret that self-regulated learning has a positive and significant effect on learning achievement.

The Influence of Learning Environment on self-regulated learning

Based on the linearity test, the significance value on Deviation from Linearity is 0.686. It follows the criteria in linearity testing that if sig > 0.05, there is a linear relationship between the learning environment and self-regulated learning. Furthermore, the f-table value in this study is 1.80, and the f-count value is 0.807 and follows the criteria in linearity testing that if f-count < f-table, then there is a linear relationship between the learning environment and learning achievement. Furthermore, the results of the research on path analysis obtained the path coefficient value (Beta) for X1 to X2 of 0.220, meaning that for every one unit increase in the learning environment, the self-regulated learning variable increases by 0.220 with the assumption that other exogenous variables from the regression model are significant.

In the calculation of the path coefficient test individually or the T-test between the Learning Environment (X1) and Self Regulated Learning (X2) based on the Coefficient table, the pyx3 value is 0.220, causing pyx3 > 0 (the learning environment has a significant effect on self-regulated learning). The considerable value is 0.039, so the value of sig < 0.05, then H0 is rejected, and Ha is accepted, which means the path analysis coefficient is significant. Furthermore, the t-count value in this study is 2.092. The t-table value can be seen from the T table with (df = n-k-1 = 88-2-1 = 85) with a probability value of 0.05 or 5% of 1.983, then t-count ≥ t-table and H0 reject and Ha is accepted. Therefore, it can conclude that the learning environment has a positive and significant effect on self-regulated learning in the correlation coefficient test to determine the magnitude of the relationship between exogenous
variables and endogenous variables. The correlation value of the learning environment on self-regulated learning is 0.220. This value includes the interval 0.20 – 0.399, so the relationship between the learning environment and self-regulated learning is weak. Based on all the calculations, it can interpret that the learning environment has a positive and significant effect on self-regulated learning.

**CONCLUSION**

Based on the description in the discussion, the last step of the research entitled The Influence of Environment and Self-Regulated Learning on Student Achievement. So the researchers conclude, namely, first, the results of this study indicate a positive and significant influence between the learning environment and learning achievement as evidenced by the t-count ≥ t-table (3.452 > 1.983). Second, there is a positive and significant effect between self-regulated learning on learning achievement as evidenced by the t-count ≥ t-table (9.616 > 1.983), and third, there is a positive and significant effect between the learning environment on self-regulated learning as evidenced by the t-count ≥—t-table (2.092 > 1.983). Therefore, based on the analysis above, it can conclude that there is a positive and significant influence between the environment and self-regulated learning on learning achievement.

**REFERENCE**


