

Relationship Student Learning Interest To The Learning Outcomes Of Natural Sciences

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Abstract.

This study aims to determine whether there is a positive and significant relationship and there is an influence between learning interest on Integrated Science learning outcomes. The type of research used in this research is quantitative research with correlational methods. The population in this study were all 65 students of class VII at SMP Negeri 4 Maniamolo. The sampling technique uses a total sampling technique, meaning that the entire population is used as a sample. The instrument in this study used a closed questionnaire and students' science learning outcomes were in the form of odd semester final exam scores. Data analysis techniques were carried out by describing the data, correlational analysis, coefficient of determination and hypothesis testing. The test results in this study indicate that there is a positive and significant relationship between learning interest on science learning outcomes, and there is also an influence between learning interest on Integrated Science learning outcomes. So it was concluded that 1) because students have a sense of pleasure, interest, and a high desire for learning which is seen as giving them benefits and satisfaction, 2) students have a sense of comfort, are aware of the benefits of learning, and know the learning goals that make them interested so that learning occurs. improvement in learning outcomes.

Keywords: Learning outcomes, science and interest in learning.

I. INTRODUCTION

Various developments so far in the metamorphosis of education which is one of the main things in the life of every individual human being. So far, education in Indonesia is divided into 3 main lines in its implementation, namely formal education, informal education, and non-formal education (Law No. 20 of 2003 article 13 paragraph 1) in[1]. One form of formal education in practice is education held in schools in general. This school is a meeting place for various conditions of students and teachers in carrying out learning process activities[2]. In the process of learning activities, the processes that must be carried out that cannot be separated from learning activities are planning, implementing, and evaluating. Evaluation is an activity to measure and assess student learning outcomes. Learning outcomes are something that is obtained after the learning process is complete. If during the learning process the maximum absorption of information then the results of the learning process will also be maximized[3]. Learning outcomes are the abilities possessed by students after they receive their learning experience[4]. According to Hordword Kingsley in[5] dividing three kinds of teaching and learning outcomes: 1) Skills and habits, 2) Knowledge and understanding, 3) Attitudes and ideals. Learning outcomes have an important role in the learning process because they will provide information to the teacher about the progress of students in an effort to achieve their learning goals. Learning outcomes are a picture of how students understand the material presented by the teacher. Learning outcomes are output values in the form of numbers or letters that students get after receiving subject matter through a test or exam delivered by the teacher. From these learning outcomes the teacher can receive information on how far students understand the material being studied[6]. One of the reasons is the lack of understanding of students[7].

Conditions in the field show that students' attention when learning science is still low. This was shown when the science learning process was in progress, only some students paid attention to the material presented by the teacher. While the other students were busy paying attention to other objects such as the teacher's appearance and way of speaking. Student attention is seen when the student listens, writes and records the teacher's explanations that are considered important, and is able to remember the material presented by the teacher. Students are formed in groups in order to work together to solve problems given by

the teacher. However, in practice only some students are active while others only see their friends who are working or not active at all. In general, there are several factors that can affect the learning process, including internal factors and external factors. Internal factors that influence the learning process are physical, psychological and fatigue factors. While external factors include family, school and community factors [8]. Internal factors that influence the learning process are physical factors, including interest in learning. Learning interest referred to here is the interest of students in a lesson. There are students who have a high learning interest which means that these students have a great opportunity to understand a learning material, there are also students who have a moderate learning interest which means that these students have sufficient opportunities to understand the subject matter, and there are also students who have low learning interest which means the opportunity to receive lessons is slow. According to students who learn science is the most difficult subject to understand [9].

Interest is related to motivation, because interest is an encouragement in a person or a factor that gives rise to selective attention, which causes the choice of an object or activity that is profitable, enjoyable which over time will bring satisfaction. [6]. Therefore, encouragement, attention and pleasure in an activity are interrelated with factors that generate interest. If the factors that generate interest in an activity are low, it can cause the person's interest to be low [10]. Slameto inside [11] states "interest is a fixed tendency to pay attention to and remember some activities". When someone has an interest in something, he will show a high sense of interest by paying attention continuously and accompanied by feelings of pleasure. Where the feeling of pleasure that exists, leads to satisfaction. This sense of tendency appears in students' continuous attention to something, thus enabling individuals to be more active in learning it. Hurlock inside [12] states that interest is "a source of motivation that drives people to do what they want when they are free to choose". When they see that something will be profitable, they will feel interested. This then brings satisfaction. However, if satisfaction decreases, interest also decreases. This explains that the actions of each individual are influenced by an interest in something. If someone's interest is big, then the urge that is in him to do something will be great too. And vice versa, if a person's interest is small then the motivation that is in him to do something will be small or less. Strong interest will trigger someone to try harder to do something. Likewise in learning, students who are interested will have motivation in improving learning outcomes. According to Crow & Crow in [13], "interest relates to the style of motion that encourages a person to face or deal with people, objects, activities, experiences that are stimulated by the activity itself.

This means that interest can be a cause of activity and a cause of participation in that activity. A strong desire to be involved in an activity is influenced by a person's interest in that something. It is this sense of interest that moves the individual to want to do something without being told. In opinion [14] states that "interest has a great influence on learning, because if the subject matter being studied is not in accordance with the interests of students, students will not learn as well as possible, because there is no attraction for him". Students will be lazy to learn and do not get satisfaction from the lesson. Learning materials that interest students are easier to learn so as to improve learning outcomes.

II. METHODS

This type of research is quantitative research, namely "research that uses a lot of numbers, starting from data collection, data interpretation, and the appearance of the results." [15]. The method used is correlation. According to [16] correlation research is "research that aims to find whether there is a relationship and if there is, how close the relationship is and whether or not the relationship is meaningful". The relationship between one variable and several variables is expressed by the magnitude of the correlation coefficient and statistical significance (significance). This study has two variables, namely learning interest (X) as the independent variable and science learning outcomes (Y) as the dependent variable. Using this method is expected to obtain an overview of the relationship between learning interest and science learning outcomes for class VII students of SMP Negeri 4 Maniamolo in the 2022/2023 academic year. According to [17] the design in this study is as shown in the picture. 1 below.

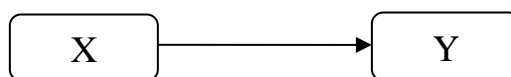


Fig 1. Research Design

Information:

- X = Student Learning Interest
- = Relationship
- Y = Student Learning Outcomes

Population is the subject of research"[18]The object of research can be living things, objects, systems, procedures, phenomena and others. The population in this study were all class VII students of SMP Negeri 4 Maniamolo for the academic year 2022/2023, totaling 65 students. The sample is "part of the number and characteristics possessed by the population" in[19]. In this study, researchers used the entire population as a research sample using a total sampling technique. The sample size used is based on opinion[20]who explained that "as a guideline in sample selection if the subject is less than 100 it is better to take all of them". In order for this research to be in accordance with the expected objectives and to avoid misunderstandings, it is necessary to have an operational definition as follows. Interest in learning as an independent variable (X). Interest in learning is a feeling of pleasure, interest, and a high desire for learning which is seen as giving advantages and satisfaction to him because he knows the purpose of learning, giving rise to awareness as an educational subject and awareness of the need for learning[21].

Science learning outcomes as the dependent variable (Y). Science learning outcomes are the abilities students have after receiving their learning experience as measured in the form of odd semester final exam scores for the 2022/2023 academic year.

Data collection techniques in this study are

1. Closed questionnaire technique. A closed questionnaire (questionnaire) is a statement in which the answer has been provided so that the respondent only has to choose[22], The steps for collecting data using a closed questionnaire are as follows. a) Prepare research instruments in the form of a questionnaire, b) Ask about the readiness and willingness of respondents to fill out the questionnaire, c) Distribute the questionnaire to respondents or students, d) Provide an explanation of how to fill out the questionnaire, e) Invite respondents to fill out the questionnaire they have received, f) Collect questionnaires that have been completed by respondents or students, g) Do scoring and analyze data, h) Science learning outcomes.

2. Learning outcomes are the abilities possessed by students after they receive their learning experience[23]. Data on students' natural science learning outcomes were obtained from science subject teachers for class VII, SMP Negeri 4 Maniamolo. Then, data analysis was carried out.

III. RESULTS AND DISCUSSION

This section describes the research in this study is a quantitative research with correlational methods

1. Results

Interest in learning data was obtained through a research instrument in the form of a questionnaire. Before the instrument is used, the instrument is first validated and tested. After reporting on the instrument trials, the researchers conducted research at Maniamolo 4 Public Middle School. The research instrument in the form of a questionnaire was distributed to all class VII students of Maniamolo 4 Middle School for the 2022/2023 academic year with a total of 65 people. The results of data collection are then tabulated and the total score is calculated. But before knowing the level of achievement of respondents on the variable interest in learning, first calculate the level of achievement of respondents on each indicator of interest in learning. Respondents' achievement of each indicator of interest in learning can be calculated as follows.

Table 1. Distribution of Frequency and Percentage of Respondents on Indicators
The Happy Feeling of Learningr (Interest in Learning)

Category	Score Intervals	Frequency (F)	Percentage (%)
Very High (ST)	81-100	18	27,7
Height (H)	61-80	36	55,4

Medium (S)	41-60	11	16,9
Low (R)	21-40	0	0
Very Low (SR)	0-20	0	0
Total		65	100%

Based on the table above, it can be explained that the level of students' feelings of pleasure in learning is in the very high category (ST) 27.7%, the high category (T) 55.4%, the medium category (S) 16.9%, the low category (R) 0 % and very low category (SR) 0%. This shows that there are still students whose level of feeling happy learning is in the medium category but the majority are in the high category.

The results of the research questionnaire for variable X and variable Y were prepared for calculating the correlation test. The results are contained in table 2 below.

Table 2. Preparation of Correlation Test Calculations

	N	X	Y	XY	X ²	Y ²
Σ	65	6994	4042	438416	763252	255692

Based on the values in table 2, the following calculations can be carried out:

$$r_{xy} = \frac{N \Sigma xy - (\Sigma x)(\Sigma Y)}{\sqrt{\{N \Sigma x^2 - (\Sigma x)^2\}\{N \Sigma y^2 - (\Sigma Y)^2\}}}$$

$$r_{xy} = \frac{(65 \times 438416) - (6994)(4042)}{\sqrt{\{65 \times 763252 - (6994)^2\}\{65 \times 255692 - (4042)^2\}}}$$

$$r_{xy} = \frac{28497040 - 28269748}{\sqrt{\{49611380 - 48916036\}\{16619980 - 16337764\}}} = \frac{227292}{\sqrt{\{695344\}\{282216\}}}$$

$$r_{xy} = \frac{227292}{442986,68} = 0,513$$

Based on the calculation of the correlation test above, it is obtained that it is equal to and is in the correlation coefficient interval of 0.40 - 0.599 in the moderate category. Then the relationship between learning interest on learning outcomes can be stated as moderate. r_{hitung} 0,513

Determination Test Results

Based on the calculation of the correlation test, the value is obtained $r_{xy} = 0,513$. Next, the calculation of the determination test is carried out with the following formula:

$$KD = r^2 \times 100\%$$

$$KD = (0,513)^2 \times 100\% = 0,2632 \times 100\% = 26,32\%$$

From the calculation of the determination test, it is obtained, which means that interest in learning has an influence on students' natural science learning outcomes by 26.32%, the remaining 73.68% are other factors that affect students' natural science learning outcomes, for example intelligence, motivation and other things. $KD = 26,32\%$

Hypothesis Test Results

To find out whether there is a significant relationship between learning interest and science learning outcomes for class VII students of SMP Negeri 4 Maniamolo in the 2022/2023 academic year, a statistical hypothesis test was carried out using a regression linearity test. The regression equation used is a simple linear regression model. Before carrying out the calculations, the results of data acquisition for variables X and Y are contained in table 10 below.

Table 3. Preparation for Regression Linearity Test Calculations

	N	X	Y	XY	X ²
Σ	65	6994	4042	438416	763252

Based on the values in table 3, the following calculations can be carried out.

$$a = \frac{(\Sigma Y)(\Sigma X^2) - (\Sigma X)(\Sigma XY)}{n \Sigma X^2 - (\Sigma X)^2}$$

$$a = \frac{(4042)(763252) - (6994)(438416)}{65 \times 763252 - (6994)^2} = \frac{18783080}{695344} = 27,01$$

To obtain the value, the calculation is carried out as follows. b

$$b = \frac{n \sum XY - (\sum X)(\sum Y)}{n \sum X^2 - (\sum X)^2} = \frac{65 \times 438416 - (6994)(4042)}{65 \times 763252 - (6994)^2}$$

$$b = \frac{28497040 - 28269748}{49611380 - 48916036} = \frac{227292}{695344} = 0,33$$

After the values are obtained, the form of the equation is . From this equation, it can be stated that when the value of X changes, the value of Y will also change. This means that it is accepted and rejected or there is a significant relationship between learning interest and science learning outcomes for class VII students of SMP Negeri 1 Maniamolo in the 2022/2023 academic year. $ab\hat{Y} = 27,01 + 0,33xHa_1Ho_1$

To find out whether there is an influence of interest in learning on science learning outcomes for class VII students of SMP Negeri 4 Maniamolo in the 2022/2023 academic year, a statistical hypothesis test was carried out using the t test as follows:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

$$t = \frac{0,513\sqrt{65-2}}{\sqrt{1-0,513^2}} = \frac{0,513\sqrt{63}}{\sqrt{1-0,2632}} = \frac{4,0718}{0,8584} = 4,74348$$

Based on the calculation above, it is obtained and then at a value with a significant level of 0.05 with a value of , then the value of . From these results it can be concluded that $t_{hitung} = 4,74348 > t_{tabel} dk = n - 2 dk = 63 t_{tabel} = 1,99834$ tcount => ttable = or accepted and rejected, which means that there is an influence of interest in learning on science learning outcomes for class VII students of SMP Negeri 4,74348 = 1,99834 Ha_2Ho_2 4 Maniamolo academic year 2022/2023.

2. Discussion

Based on the results of data analysis, a positive correlation coefficient was obtained, indicating a positive relationship between learning interest and science learning outcomes. This means that increasing interest in learning in students will bring an increase in student learning outcomes and vice versa when learning interest is low, learning outcomes tend to be low. This is proven by the highest frequency for variable X which is in the high category, as well as for variable Y the highest frequency is in the high level or category. However, in this study there were also respondents whose learning interest was low but their learning outcomes were high. This is due to another factor, namely the lack of seriousness of the respondents in filling out the questionnaire. The results of the analysis show that the correlation between the two variables is significant, and also has an influence. The form of the equation obtained from the results of the regression linearity test analysis proves that when the X value changes, the Y value will also change. This means that when learning interest increases, learning outcomes will increase. According to the statement [24] that interest has a great influence on learning, because if the subject matter being studied is not in accordance with the interests of students, students will not learn as well as possible, because there is no attraction for him. Students will be lazy to learn and do not get satisfaction from the lesson. Learning materials that interest students are easier to learn so as to improve learning outcomes. Low student interest in learning resulted in students experiencing difficulties in learning.

This is because students are not interested in activities related to the learning process. Students also do not know the importance of paying attention to and mastering the subject being conveyed by the teacher. Students who are not interested and do not understand the purpose of why they are learning will tend not to have the desire to master and be involved in the learning activity. This makes it difficult for students to understand the vector material delivered by the teacher. These results are supported by research results [25] entitled The Relationship between Learning Interest and Learning Outcomes in the Subject of Dressmaking at Madrasah Aliyah Negeri 2 Padang, the results of which show that interest in learning with the learning outcomes of the Subject of Dressmaking at Madrasah Aliyah Negeri 2 Padang has a correlation coefficient of 0.552 with a positive relationship (+). That is, the better the interest in learning, the higher the student learning outcomes. Like Slameto's statement [26] in minat is a persistent tendency to pay attention to and remember some activities. Activities that a person is interested in will be noticed continuously and accompanied by feelings of pleasure. Learning activities that are carried out continuously and are

accompanied by high attention will help students increase their knowledge and understanding of the material they are studying.

Bernard deep[27] added that interest does not arise suddenly or spontaneously, but arises as a result of participation, experience, habits when studying or working. Interest is basically the acceptance of a relationship between oneself and something outside of oneself. The stronger and closer the relationship, the greater the interest. Interest arises in a person not innate but rather as a result of learning that tends to support further learning activities. This is a good basis for teachers, parents and the environment to be able to support the growth of interest in students to learn. In addition to the relationship, there is also an influence of learning interest on students' science learning outcomes by 26.32% so that there are still 73.68% of other factors that influence student learning outcomes, such as intelligence, motivation and other things. Which means, interest in learning is not the only factor that influences student learning outcomes but is only one of several other factors. Based on the results of this analysis, this study answers the proposed hypothesis, namely "there is a positive and significant relationship between learning interest and science learning outcomes in class VII students of SMP Negeri 4 Maniamolo in the 2022/2023 academic year" and "there is an influence between learning interest on science learning outcomes class VII students of SMP Negeri 4 Maniamolo for the 2022/2023 academic year."

IV. CONCLUSION

There is a positive and significant relationship between learning interest and students' science learning outcomes in class VII SMP Negeri 4 Maniamolo in the 2022/2023 academic year because students have a sense of fun, interest, and a high desire for learning which is seen as giving them advantages and satisfaction. Because students have a sense of comfort, and are aware of the benefits of learning, and are able to know the learning objectives that make students interested so that there is an increase in learning outcomes. The teacher's suggestions can give sufficient attention, as well as provide an understanding of the benefits of learning and learning objectives to arouse student learning interest so that the implementation of learning goes well so that student learning outcomes increase, especially in Integrated Science subjects.

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