The correlation between learning interest and mathematics achievement in grade VII SMP PGRI Bengkulu

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Abstract. This correlational study aims to determine the effect of learning interest forwards in mathematics achievement in Junior High School students PGRI Kota Bengkulu. The sampling in this study used a purposive sampling technique with consist 12 student, grade VII, which is 5 boys and 7 girls. The data is collected by using a questionnaire and documentation. Then, the data is analysed using correlation analysis. Based on the results of the analysis, it is concluded that students' interest in learning has a positive effect on mathematics achievement.

1. Introduction
Mathematics is one of the government's priorities to be developed. This is evidenced by the mathematics subject compulsory subjects that are studied from the elementary level to the upper secondary level.

In learning mathematics there are two factors that influence. The factors in question are external and internal factors. External factors are factors originating from outside the students themselves, such as the family, school and community environment. While internal factors are factors originating from within students such as physical and psychological factors in psychology including attitudes, interests, habits, needs, motivation, self-concept, self-adjustment, emotional and so on.

Rusmini [1], Interest is closely related to individual feelings, objects, and activities. Two things related to interests, namely: interest as encouragement and interest as needs. Interest in learning is the encouragement or desire of individuals in this case students, as an effort to achieve the results of learning done. Khairina and Syafirina expressed a great interest in the effect on learning outcomes, because the study material learned did not match the interests of students, the learner would not learn well and he did not get satisfaction from the lesson [2].

Siagan explains the success of students in learning can be influenced by factors from within and outside the individual. Every learning process is certainly expected that students get good learning outcomes [3]. But in reality, the learning outcomes obtained by students are not always good and as expected. Student learning outcomes that are not good is one of the problems in education. It also shows the ability and quality of students as the impact of the learning process that has been passed. This should be a concern and evaluation material in the learning process.

Based on this, the problem formulation of this study is "Is there any influence of interest in learning mathematics on the learning outcomes of students in SMP PGRI Bengkulu City?"
2. Research methodology
This research is a quantitative research. The study was conducted in January to February 2019, in the even semester. This research was conducted in class VII A SMP PGRI Bengkulu City. The number of students in the class were 12 people consisting of 5 boys and 7 girls. In this study there are 2 variables: 1 independent variable and 1 dependent variable. The independent variable learning interest (x) and the dependent variable learning outcomes (y). The research design is shown in the following figure:

![Research Design](image)

**Figure 1.** Research design.

Information:
- X = Student Interest to learn
- Y = Student Mathematics achievement

To summarize the data in this study conducted by learning interest questionnaire and learning outcomes test taken from students' daily test scores, participants' learning interest questionnaire was given directly to students who were used as research samples, while learning outcomes were obtained from students' daily test scores sourced from teachers. The questionnaire had previously been validated by a team of experts namely lecturers in Mathematics Study Program. After the questionnaire was filled out, the answers of each respondent were examined and then scored according to the respondents' answers. The total scores obtained were then converted in the form of a scale of 27 to 108 using the formula proposed by Purwanto [4] as follows:

\[ N = \frac{X_p - X_{\text{min}}}{X_{\text{max}} - X_{\text{min}}} \times 100 \]  

(1)

with:
- \( N \) = Value of learning outcomes
- \( X_p \) = Score obtained
- \( X_{\text{min}} \) = Minimum total score = \( 1 \times \) number of questions
- \( X_{\text{max}} \) = Maximum total score = \( 4 \times \) number of items

Student mathematics learning outcomes data is the value obtained by students through formative tests or daily tests in the academic year 2019/2020. In this study the document used in the form of daily math test scores on one of the subjects of the even semester in the 2019/2020 academic year was obtained from the mathematics subject teacher in the class that became the research sample.

3. Result and discussion

3.1. Results
In this study, it will be identified whether the variable student interest (X) and student learning outcomes (Y) have a causal correlation. With the formulation of the hypothesis "Student interest in learning has a positive and significant impact on mathematics learning outcomes of SMP PGRI Bengkulu City students". Statistically, the hypothesis is written as follows:

- H0: \( \rho = 0 \) (There is no significant effect on the learning outcomes of SMP PGRI Bengkulu City students).
- Ha: \( \rho \neq 0 \) (There is a significant influence on the learning outcomes of students of SMP PGRI Bengkulu City).

At the stage of analysing data, using the product moment test which was previously tested for normality and homogeneity. Based on tests conducted with the help of SPSS the data is normally distributed and has a homogeneous variance at 5% alpha as shown in the following figure:
Based on the table value of sig (2-tailed) 0.002 < 0.05. This means that there is a correlation between learning interest and learning outcomes as well as learning outcomes and learning interest. Furthermore, based on the Pearson Correlation value of 0.774, it can be concluded that the correlation is strong.

From the results of the above research supported by Khairina and Syafrina expressed a great interest in its influence on learning outcomes, because the study material learned is not in accordance with the interests of students, the learner will not learn well and he will not get satisfaction from the lesson [2]. This is in accordance with Firmansyah states that learning interest can be interpreted as a desire or need arising from the participation and learning experience of a person created by a sense of security in the teaching and learning process so that learning outcomes are fully controlled by students [5].

3.2. Discussion

The big interest is the effect on learning, because if the learning material learned is not in accordance with the interests of the students, the students will not learn as well as possible because there is no attraction for them. He was reluctant to learn, he did not get satisfaction from the lesson. In contrast, learning material that interests students is easier to memorize and convey, because interest increases
learning activities. Thus it can be concluded that children's high interest in learning will ultimately achieve satisfying learning outcomes. Interest is a psychological factor found in everyone. So that interest in a particular activity can be owned by everyone. If someone is interested in something, the interest is due to the encouragement of feeling happy and the attention to something.

Interest is a source of motivation that encourages people to do what they want if they are free to choose. When they see that something will be beneficial, they feel interested. This then brings satisfaction. When satisfaction decreases, interest decreases.

4. Conclusion
Based on the results of data analysis, it can be concluded that there is a significant positive relationship between learning interest and the learning outcomes of SMP PGRI students in Bengkulu City. This can be seen from the value of $r$ count calculation which is greater than the value of $r$ table) ($0.774 > 0.576$) with the contribution of interest to learning achievement is 59.9%. This shows that the higher the interest in learning mathematics from students, the higher the results of mathematics learning will be obtained by students.

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