

# THE EFFECT OF SCHOOL FACILITIES AND SOCIAL SCIENCES TEACHER PERFORMANCE ON STUDENT LEARNING ACHIEVEMENT IN SOCIAL SCIENCES AT STATE MIDDLE SCHOOL 2 BOSAR MALIGAS

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## Abstract

This study aims to determine the effect of school facilities and teacher performance on student achievement in social studies for eighth graders at SMP Negeri 2 Bosar Maligas in the 2024/2025 academic year. Student achievement in this study is examined from a cognitive perspective, specifically the Mid-Semester Exam (UTS) scores for social studies. The research method used was a quantitative approach with a descriptive approach. The study population was all 67 eighth grade students, using a saturated sampling technique, thus sampling the entire population. Data collection instruments included questionnaires and documentation of mid-term exam scores. Data analysis used multiple linear regression with partial (t-test) and simultaneous (F-test) tests. The results showed that (1) school facilities had a positive and significant effect on social studies achievement for eighth graders at SMP Negeri 2 Bosar Maligas; (2) teacher performance had a positive and significant effect on social studies achievement; and (3) school facilities and teacher performance simultaneously had a significant effect on social studies achievement. Thus, it can be concluded that improving the quality of school facilities and optimizing teacher performance are important factors in efforts to improve student learning achievement.

**Keywords:** : *school facilities, teacher performance, academic achievement, social studies*

## INTRUCTIN

Education plays a strategic role in improving the quality of human resources, the primary foundation of a nation's development. Through education, each individual acquires the knowledge, skills, and values necessary to face the challenges of life in the future. One indicator of educational success can be seen in student achievement, which reflects the extent to which students are able to understand and master the subject matter. Learning achievement is not merely an academic score but also a benchmark for assessing the effectiveness of the learning process in schools. Therefore, improving the quality of education must be continuously pursued through various factors that support the achievement of optimal learning achievement. Student learning achievement is essentially the result of learning efforts involving cognitive, affective, and psychological aspects. The cognitive aspect includes the ability to think, understand, analyze, and evaluate knowledge (Blm, 1956; Syah, 2014). The affective aspect relates to the attitudes, motivations, and values held by students in the learning process, while the psychological aspect relates to skills demonstrated through concrete actions (Krathwhl et al., 1973). Thus, learning achievement can be understood holistically as a combination of students' thinking abilities, attitudes, and skills. These three aspects can only develop optimally if supported by conducive internal and external factors. Internal factors that influence learning achievement include motivation, interest, readiness to learn, self-confidence, and students' physical condition. Meanwhile, external factors are more influenced by the learning environment, school facilities, curriculum, and teacher quality in delivering learning (Mudjin, 2013; Slamet, 2016). In the context of school learning, the two most dominant external factors are the availability of learning facilities and teacher performance. These two factors play a crucial role because they are directly related to the process of knowledge transfer and the creation of an effective learning environment. If either of these factors is less than optimal, student learning achievement tends to decline.

School facilities are a key factor in supporting effective learning. These include comfortable classrooms, adequate learning furniture, a complete set of textbooks, a laboratory, learning media, and a school library (Bafadal, 2014; Slamet, 2013). The availability of learning facilities allows students to understand the material more concretely and enjoyably, thereby increasing their absorption of the knowledge taught. Conversely, limited facilities can be a barrier that can potentially reduce student motivation and learning outcomes. Therefore, schools are required to continuously maintain and develop their facilities to support effective learning. Besides facilities, teacher performance is another factor that significantly determines student learning success. Teachers serve not only as transmitters of knowledge, but also as facilitators, motivators, and guides in creating a conducive learning environment. Teacher performance can be measured by their ability to plan, mastery of material, application of learning methods, use of media, and ability to evaluate learning (Wahab & Umiars, 2012; Kmpri, 2014). Teachers who are able to manage their classes well will influence students' positive attitudes toward learning, foster curiosity, and encourage active involvement in the learning process. Thus, improving teacher performance is a primary prerequisite for efforts to improve the quality of education.

The actual conditions at SMP Negeri 2 Bsar Maligas show that some school facilities are adequate, such as classrooms, learning furniture, and the availability of textbooks. However, there are still limitations in technology-based learning media, such as projectors and infocus devices, some of which are damaged. This causes the learning process to be less than optimal because teachers have not fully utilized the varied learning media. In terms of teacher performance, although most have carried out their duties well, such as being on time to class, the use of learning methods and media is still limited, so learning tends to be stagnant. This condition has an impact on student achievement, especially in Social Sciences (IPS). Based on the results of observations and student grade data, it appears that the social studies learning achievement in class VIII of SMP Negeri 2 Bsar Maligas is still unsatisfactory. Most students obtained grades in the "sufficient" category, some even entered the "poor" category, while the number of students achieving excellent grades is still very low. This indicates a gap between teacher expectations that target most students to achieve high categories and the reality in the field. This condition raises questions about the extent to which the role of school facilities and teacher performance influences student learning achievement. Therefore, this study is important to analyze the influence of school facilities and teacher performance on the social studies learning achievement of class VIII students of SMP Negeri 2 Bsar Maligas in the 2024/2025 academic year.

## **LITERATURE REVIEW**

### **Student Learning Achievement**

Learning achievement is the outcome achieved by students after going through a learning process over a specific period. Blm (1956) divided it into three domains: cognitive, affective, and psychological. The cognitive domain relates to the ability to think and understand, the affective domain concerns attitudes and motivation, and the psychological domain encompasses concrete skills. Learning achievement is used to assess the extent to which learning objectives have been achieved. Therefore, learning achievement is a primary indicator of educational success (Arifin, 2013; Hamdani, 2011).

### **School Facilities**

School facilities are the resources and infrastructure that support smooth learning. According to Bafadal (2014), facilities consist of classrooms, learning furniture, libraries, books, media, and laboratories. Adequate facilities create a conducive learning environment, making it easier for students to understand the material. Conversely, limited facilities can hinder the learning process (Slamet, 2013). Therefore, the availability of good facilities significantly impacts student achievement.

### **Teacher Performance**

Teacher performance refers to a teacher's ability to plan, implement, and evaluate learning. Wahab and Umiars (2012) state that teacher performance indicators include material mastery, method use, media utilization, and evaluation of learning outcomes. Teachers with good performance are able to create an active, creative, and enjoyable learning environment. Conversely, low performance makes learning stagnant and less effective. Therefore, teacher performance significantly determines the quality of student learning outcomes.

## METHOD

### Types and Design of Research

This study employed a quantitative approach with a descriptive-verification method. This approach was chosen because the study aimed to examine the influence between variables using numerical data. The verification design was used to determine the extent to which school facilities and teacher performance influence student achievement. Analysis was conducted through questionnaire data processing and documentation of student grades. Thus, the research results can provide an objective empirical picture.

### Location and Time of Research

The research was conducted at SMP Negeri 2 Bsar Maligas, Simalungun Regency, North Sumatra. This location was chosen due to issues related to limited school facilities and variations in teacher performance, which impact student achievement. The research was conducted in the even semester of the 2024/2025 academic year. The research period is planned to begin in April 2025 and continue until completion. This timeframe includes preparation, data collection, analysis, and the preparation of the research report.

### Population and Research Sample

The population in this study was all 67 eighth-grade students at SMP Negeri 2 Bsar Maligas. Due to the relatively small population, this study used a saturated sampling technique. This means that all members of the population were included in the sample. Therefore, the sample size for this study was 67 students. This technique was chosen to ensure more accurate and representative research results.

## RESULTS AND DISCUSSION

### Multiple Regression Test

To test whether each coefficient can provide a description of Y for X related to the coefficient in question, it is necessary to carry out a multiple linear regression calculation. Testing the coefficients with the assumption that the regression has been accepted is in the form of multiple linear regression which is expressed by the equation  $Y = a + b_1 X_1 + b_2 X_2$ .

From the calculations in Appendix 19, we obtain  $a = 19.204$ ,  $a_1 = 0.47$ ,  $a_2 = 0.48$ . Thus, the multiple linear regression equation can be written as follows:

$$Y = 19.204 + 0.47X_1 + 0.48X_2$$

This means that if a student has a school facility score of 50 and a teacher performance score of 50, then we can estimate that the student's learning achievement score (Y) is:

$$Y = 19.204 + (0.47)(50) + (0.48)(50) = 66.704$$

given  $X_1$  and  $X_2$ .

### F Test (Simultaneous)

Meanwhile, to test whether the coefficients of multiple linear regression are real or not in predicting Y, a multiple regression linearity test is carried out. Based on the attachment, the data obtained to calculate the multiple regression linearity test is as follows:

$$\begin{aligned} JK_{reg} &= a_1 (\sum X_1 Y) + a_2 (\sum X_2 Y) \\ &= (0.47)(227619) + (0.48)(222585) = 213821.73 \end{aligned}$$

$$Jk_{res} = \sum (Y - \hat{Y})^2 = 2958.33$$

Then F count is determined by the formula:

$$JK = \frac{Jk_{reg}/k}{Jk_{res}/n-k-1} = \frac{213821.73/15}{2958.33/51} = 245.75$$

Testing criteria:

If Fcount is greater than Ftable, it can be stated that Y on  $X_1$  and Y on  $X_2$  have multiple linear regression that can be used to predict the average of Y if  $X_1$  and  $X_2$  are known. From the F distribution table with a significance level of  $\alpha = 0.05$  with a numerator of 15 and a denominator of 51,  $F_{0.95}$  is obtained: 15 VS 51 = 1.884. It turns out that Fcount is greater than Ftable, namely  $(245.75 > 1.884)$ . Thus, it can be concluded that the multiple linear regression test of Y on  $X_1$  and  $X_2$  is real.

Regression  $\hat{Y} = 19.204 + 0.47X_1 + 0.48X_2$  can also be used to predict the average Y if  $X_1$  and  $X_2$ , school facilities and teacher performance on student learning achievement in social studies subjects for class VIII at SMP Negeri 2 Bsar Maligas.

#### 4.2.3.4 t-Test (Partial)

To determine the degree of influence between 2 variables, a simple correlation test is used which can be calculated using the following formula:

1. The relationship between school facilities ( $X_1$ ) and student learning outcomes (Y).

$$r_{XY} = \frac{N \sum X_1 Y - \sum X_1 \sum Y}{\sqrt{[N \sum X_1^2 - (\sum X_1)^2][N \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{67(227619) - (3385)(4467)}{\sqrt{[67(174179) - (3385)^2][67(302199) - (4467)^2]}} = 0.52$$

To test whether the hypothesis is accepted or not, it is tested using the following formula:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} = \frac{(0.52)\sqrt{67-2}}{\sqrt{1-(0.52)^2}} = 4.91$$

testing criteria:

$H_0$  is rejected and  $H_1$  is accepted if the calculated t is greater than the t table at a significance level of  $1 - 1/2\alpha$  with  $dk = n - 2$ . From the frequency distribution list of t with  $\alpha = 0.05$  and  $dk = 67 - 2 = 65$ , namely  $t_{0.975:65} = 1.669$ . It turns out that the calculated t is greater than the t table ( $4.91 > 1.669$ ).

Thus, it can be concluded that there is a significant influence between school facilities on student learning outcomes in the subject of Social Studies for class VIII at SMP Negeri 2 Bsar Maligas.

2. The relationship between teacher performance ( $X_2$ ) and student learning outcomes (Y)

$$r_{XY} = \frac{N \sum X_2 Y - \sum X_2 \sum Y}{\sqrt{[N \sum X_2^2 - (\sum X_2)^2][N \sum Y^2 - (\sum Y)^2]}}$$

$$= \frac{67(222585) - (3311)(4467)}{\sqrt{[67(166185) - (3311)^2][67(302199) - (4467)^2]}} = 0.55$$

To test whether the hypothesis is accepted or not, it is tested using the following formula:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} = \frac{(0.55)\sqrt{67-2}}{\sqrt{1-(0.55)^2}} = 5.31$$

testing criteria:

$H_0$  is rejected and  $H_a$  is accepted if the calculated t is greater than the t table at a significance level of  $1 - 1/2\alpha$  with  $dk = n - 2$ . From the frequency distribution list of t with  $\alpha = 0.05$  and  $dk = 67 - 2 = 65$ , namely  $t_{0.975:65} = 1.669$ . It turns out that the calculated t is greater than the t table ( $5.31 > 1.669$ ).

Thus, it can be concluded that there is a significant influence between teacher performance on student learning outcomes in the subject of Social Studies for class VIII at SMP Negeri 2 Bsar Maligas.

3. The relationship between school facilities ( $X_1$ ) and teacher performance ( $X_2$ )

$$r_{XY} = \frac{N \sum X_1 X_2 - \sum X_1 \sum X_2}{\sqrt{[N \sum X_1^2 - (\sum X_1)^2][N \sum X_2^2 - (\sum X_2)^2]}}$$

$$= \frac{67(169217) - (3385)(3311)}{\sqrt{[67(174179) - (3385)^2][67(166185) - (3311)^2]}} = 0.68$$

To test whether the hypothesis is accepted or not, it is tested using the following formula:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} = \frac{(0.68)\sqrt{67-2}}{\sqrt{1-(0.68)^2}} = 7.48$$

testing criteria:

$H_0$  is rejected and  $H_a$  is accepted if the calculated t is greater than the t table at a significance level of  $1 - 1/2\alpha$  with  $dk = n - 2$ . From the frequency distribution list of t with  $\alpha = 0.05$  and  $dk = 67 - 2 = 65$ , namely  $t_{0.975:65} = 1.669$ . It turns out that the calculated t is greater than the t table ( $7.48 > 1.669$ ).

Thus, it can be concluded that there is a significant influence between school facilities on the performance of social studies teachers in the subject of social studies for class VIII at SMP Negeri 2 Bsar Maligas.

a. Significance Test of Multiple Correlation Coefficient

The multiple correlation coefficient is expressed as R with the formula:

$$R_{1.2} = \sqrt{\frac{r^2 y_1 + r^2 y_2 - 2r y_1 r y_2 r_{12}}{1 - r^2_{12}}}$$

$$= \sqrt{\frac{(0.52)^2 + (0.55)^2 - 2(0.52)(0.55)(0.68)}{1 - (0.68)^2}} = 0.58$$

To test the closeness of the relationship, it can be tested using the formula:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} = \frac{(0,58)\sqrt{67-2}}{\sqrt{1-(0,58)^2}} = 5.74$$

Testing criteria:

H is rejected and  $H_a$  is accepted if the calculated  $t$  is greater than the  $t$  table at a significance level of  $1 - 1/2\alpha$  with  $dk = n - 2$ . From the frequency distribution list of  $t$  with  $\alpha = 0.05$  and  $dk = 67 - 2 = 65$ , namely  $t_{0.975; 65} = 1.669$ . It turns out that the calculated  $t$  is greater than the  $t$  table ( $5.74 > 1.669$ ). Thus, it can be concluded that there is a significant influence between school facilities and teacher performance on student learning achievement in the subject of Social Studies for class VIII at SMP Negeri 2 Bsar Maligas.

## RESEARCH DISCUSSION

Based on the data analysis conducted, the research process revealed research findings. The following data was obtained from the description of the research results:

To see whether there is an influence between variable  $Y$  on  $X_1$  and  $X_2$ , differentiate based on the multiple linear regression equation with the equation  $\hat{Y} = 19,204 + 0.47X_1 + 0.48X_2$ . Meanwhile, to see the magnitude of the influence between these variables, it can be seen from a simple correlation test expressed as " $R$ ". The results of the hypothesis test are:

There is a significant influence between school facilities and student achievement in social studies for grade VIII students at SMP Negeri 2 Bsar Maligas. This means that if school facilities are adequate, student achievement will be adequate, and vice versa. The magnitude of the influence between the two variables is 0.52, which means that school facilities are adequate. There is a significant influence between teacher performance and student achievement in eighth-grade social studies at SMP Negeri 2 Bsar Maligas. This means that if teacher performance is adequate, student achievement will be adequate, and vice versa. The magnitude of the influence between the two variables is 0.55, indicating that teacher performance has a moderate influence.

There is a significant influence between school facilities and teacher performance in social studies for eighth grade students at SMP Negeri 2 Bsar Maligas. This means that if school facilities are adequate, teacher performance will be high, and vice versa. The magnitude of the influence between the two variables is 0.68, indicating that school facilities have a significant influence. There is a significant influence between school facilities and teacher performance on student learning achievement in social studies for grade VIII at SMP Negeri 2 Bsar Maligas. This means that if school facilities and teacher performance are adequate, student learning achievement will be adequate, and vice versa. Meanwhile, the magnitude of the influence between the two variables is 0.58, which means that both school facilities and teacher performance have a sufficient influence.

## CONCLUSION

Based on the research results as described above in chapter IV, the following conclusions can be drawn:

1. The influence of school facilities on student learning achievement in subjects.
2. The eighth grade IPS at SMP Negeri 2 Bsar Maligas was categorized as "Enough" with a score of 0.52.
3. The influence of teacher performance on student learning achievement in social studies subjects in class VIII at SMP Negeri 2 Bsar Maligas is categorized as "Sufficient" (0.55).
4. The influence of school facilities and teacher performance on student learning achievement in the subject of Social Studies for class VIII at SMP Negeri 2 Bsar Maligas is categorized as "Sufficient" (0.58).

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