The Influence of Teacher Quality and Pedagogical Competence on Student Learning Outcomes at MTs Darunnajah Jakarta

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ARTICLE INFO	ABSTRACT
	This study aims to determine the influence of teacher quality and pedagogical competence on student learning outcomes at Mts Darunnajah Jakarta. The method used is a quantitative approach with data collection through questionnaires distributed to 60 students. The results show that teacher quality (X1) has a significant influence on student learning outcomes (Y) with a contribution of 71%. Meanwhile, the pedagogical competence of teachers (X2) influences student learning outcomes by 66.1%. Simultaneously, the influence of teacher quality (X1) and pedagogical competence (X2) on student learning outcomes (Y) reaches 77.8%, based on the coefficient of determination, with the remaining 22.2% influenced by other factors. The implications of this study indicate that improving teacher quality and pedagogical competence is crucial for optimizing student learning outcomes and, therefore, should be a focal point in efforts to improve educational quality in schools. *This is an open access article under the CC BY-NC license.*

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1. INTRODUCTION

Education is an important component that is consistently used to improve a country's standard of living. Quality education is believed to be able to produce innovation that will bring high-quality human resources. The presence of these quality resources will in turn encourage the progress of a nation. Education, as a basic need, should be accessible to every individual properly and comprehensively. However, in Indonesia, inequality in education still occurs. In addition, the education system in Indonesia is often a topic of discussion because it is considered rigid and not always effective (Fitri, 2021).

The most basic educational process in schools is learning activities, which include the teaching and learning process as the core. Learning itself is defined as an effort made by someone to obtain new behavioral changes as a whole through experiences gained from interaction with the environment (Slameto, 2010). Therefore, strengthening education can help solve various problems that occur in its implementation, such as inadequate teacher quality, infrastructure, and learning facilities.(Sofwan Manaf, 2023)

Teacher quality is an important factor in the success of students' learning process. The principals involved in this research survey provided information on teacher quality that can hinder or support

children's ability to learn. To achieve optimal learning outcomes, many learning components play a role, such as organizing materials, learning methods applied, media used, and the quality of interaction between teachers and students (Saryati, 2021). A good relationship between teachers and students is a determining factor in the effectiveness of learning activities.

A competent teacher has skills that include abilities, behaviors, and attitudes that are controlled and imbued in carrying out their duties. Pedagogical competence, one of the basic skills of teachers, is very important because it includes understanding students in terms of their psychological development. A good learning process involves learning planning, achieving academic achievement, and assessing learning outcomes (Widyaningrum, 2019). Teachers play a central role in the education process, so high teacher qualifications are essential. Teachers need to master four main competencies, namely pedagogical competence, personality competence, professional competence, and social competence (Damanik, 2019).

Based on the explanation above, the author concludes that the background of this study focuses on how students try to learn optimally and achieve optimal learning outcomes. To achieve this, quality teachers, effective learning methods, and support from parents are needed. Teacher skills and competencies play an important role in enabling teachers to teach effectively, not just carrying out learning routines.

2. METHOD

The type of research used in this study is quantitative. Quantitative research is a research method based on the philosophy of positivism that involves studying a particular population group or sample, using research instruments to collect data, analyzing data statistically, and developing certain hypotheses (Sugiyono, 2018).

The population of this study was students of Mts Darunnajah Jakarta totaling 145 students. The sample is part of the number and characteristics possessed by the population (Sugiyono, 2018). The sample that will be used as respondents in this study, the researcher uses the Slovin formula, namely: $\eta = N / (1 + Ne^2)$, $\eta = 145 / (1 + (1.45)) = 59.1$. Based on the results of the calculation using the specified formula, 60 is the number of samples in this study.

The information collection technique in this study used a questionnaire and documentation. This questionnaire was given to the target sample. The measurement range is 5 with a Likert scale. Documentation in this review was carried out to collect information that was not obtained through surveys or polls, such as school profiles and the names of class VII - IX students. After the information is collected and complete, the next stage is the information examination stage to determine the influence of teacher quality and teacher pedagogical competence on student learning outcomes at Mts Darunnajah Jakarta.

The technical analysis of data in this study is divided into 2 stages, namely descriptive analysis and inferential analysis. Descriptive analysis describes or describes data that is seen from the average value (mean), mode, median, standard deviation, minimum and maximum (Ghozali, 2013). First, descriptive analysis, planning to describe the variables or factors in each condition (Arikunto, 2014). At the inferential analysis stage, multiple linear regression analysis techniques are used using the SPSS (Statistical Program for Social Science) version 29.0 with the aim of obtaining accurate calculation results and making it easier to carry out data processing, so that it is faster and more precise.

The prerequisite test of analysis in this study uses the normality test and the linearity test. When the data is normally distributed and passes the normality test, parametric statistics can be used. In this study, the Kolmogorov-Smirnov Test was conducted using IBM SPSS 29 Statistics for Windows. If the significance value is greater than 0.05, the data is considered normal; if less than that, the data may not be normal. This prerequisite test is used to determine whether the data is linearly patterned or not. This is related to the use of linear regression, so the data must produce a linear pattern. IBM SPSS 29 Statistics for Windows is used to assist this test. The homogeneity test is the basis for decision making if the significance value is greater than 0.05, which indicates that there is a significant linear relationship between the two variables. The guarantee investigation used to determine the level of commitment of

the impact of the autonomous variable (X) on the dependent variable (Y). With the accompanying formula determination coefficient test: $KP = r^2 \times 100\%$. Partial test is an exclusively measured test to decide the impact of each independent factor on the dependent variable. The formula for the fractional test (T test) is as follows: $t = (n-2) / (\sqrt{1 - r^2})$. Multiple Linear Regression Analysis is a methodological technique to show the relationship between one environmental variable and one autonomous variable. In the relapse model, the autonomous variable makes sense of the dependent variable. In direct relapse examination, the relationship between factors is direct, where changes in factor X will be followed by changes in factor Y consistently. Meanwhile, in an indirect relationship, changes in factor X are relatively not followed by changes in factor y. such as in the quadratic model, adjustments x are followed by the square of the variable x. Such relationships are not direct. A hypothesis is a suggestion that will be taken into account when practiced or it can also be a response to what the researcher says (Priyono, 2008).

3. FINDINGS AND DISCUSSION

Based on the results of the overall data collection from the scores distributed to 60 respondents, namelystudents of Mts Darunnajah Jakarta. The items for each variable are Teacher quality as many as 27 items, pedagogical competence 27 items, and student learning outcomes 28 items. Descriptive Statistics of Student Learning Outcomes variable (Y), it can be seen that the number of respondents (N) is 60, the average value (mean) is 89.28, the maximum value is 130, the minimum value is 40 and the standard deviation is 20.678. Descriptive Statistics of Teacher quality variable (X1), it can be seen that the number of respondents (N) is 60, the average value (mean) is 83.80, the maximum value is 130, the minimum value is 36 and the standard deviation is 20.905. Descriptive Statistics of pedagogical competence variable (X2), it can be seen that the number of respondents (N) is 60, the average value (mean) is 82.68, the maximum value is 127, the minimum value is 39 and the standard deviation is 17.846.

Normality test is conducted in research testing in order to see the results of Independent Variable (X) or also called Independent Variable and Dependent Variable (Y) or also called Bound Variable, whether the variables (X) and (Y) are normally distributed or not. This test is conducted using Kolmogorov Smirnov test, histogram graph and also Normal Probability Plot Graph which is used to draw conclusions based on its significance value. If the sig value>0.05 then the results indicate that there is a normal distribution. The results of the normality test of the student learning outcome variable (Y) in 〚Kolmogorov-Smirnov〛^a sig section. (Significant) 0.200 which means 0.200> 0.05. The results of the normality test of the teacher quality variable (X1) in 〚Kolmogorov-Smirnov〛^a sig section. (Significant) 0.200 which means 0.200> 0.05. The results of the normality test of the pedagogical competence variable (X2) in the 〚Kolmogorov-Smirnov〛^a section sig. (Significant) 0.200 which means 0.197> 0.05.

In this linearity test, the aim is to find out whether there is a relationship between the Independent variable (X) and the Dependent Variable (Y). In drawing conclusions in this test, namely when the linearity sig. <0.05 and deviation from linearity> 0.05, it can be said that there is a linear relationship between the variables. In this linearity test, the sig. (Significant) <0.001, $\alpha = 0.05$, which means that there is a significant influence between Teacher Quality and Student Learning Outcomes. In this linearity test, the sig. (Significant) <0.001, $\alpha = 0.05$, which means that there is a significant influence between Teacher Pedagogical Competence and Student Learning Outcomes. In this linearity test, the sig. (Significant) <0.001, $\alpha = 0.05$, which means that there is a significant influence between Teacher Quality and Teacher Pedagogical Competence on Student Learning Outcomes.

To find out the influence of X1 and Y, a simple regression test was conducted. The calculation results show that the equation $\acute{Y} = 6.353 + 0.526 X_1$. From the results of the partial test coefficient (t) t count = 5.478> t table = 2.001, which means that Ho is rejected and H1 is accepted at a significant level of $\alpha = 0.05$ which means very significant. The results of the determination coefficient of $R^2 = 0.710$ which means that 71% of student learning outcomes are influenced by teacher quality while the remaining 29% are influenced by other factors. To find out the influence of X2 and Y, a simple regression

test was conducted. The calculation results show that the equation $\acute{Y} = 11.416 + 0.813\ X_2$. From the results of the partial test coefficient (t) t count = 4.173> t table = 2.001, which means that Ho is rejected and H1 is accepted at a significant level of α = 0.05 which means very significant. The result of the determination coefficient of $R^2= 0.661$ which means that 66.1% of student learning outcomes are influenced by pedagogical competence while the remaining 33.9% are influenced by other factors. To find out the influence of X1 and X2 on Y, a simple regression test was carried out. The calculation results show that the equation $\acute{Y} = 6.353 + 0.526\ X_1 + 0.813\ X_2$ The result of the determination coefficient of $R^2= 0.778$ which means that 77.8% of student learning outcomes are influenced by pedagogical competence while the remaining 22.2% are influenced by other factors.other.

Discussion

The results of this study are supported by the theory (Suryanto, 2018) which states that there are the following indicators: Quality Of Work, Quantity Of Work, Knowledge Of Job, Initiative On Job. The quality of teachers as school TEACHERS plays a very important role in improving student learning outcomes and this is supported by the basic knowledge of teachers about teaching. The results of the study support the results of Akhmad Burhanudin's study regarding "There is a Significant Influence of Teacher Quality on PAI Learning Outcomes of Class X students of SMA Wahid Hasyim Karanggeneng Lamongan. This can be proven from the Tcount value of 2.243 and the Ttable value is 0.254, so that Tcount> Ttable and the significance level is 0.02 <0.05. Teacher quality always refers to the competence, skills and knowledge of teachers possessed by school TEACHERS, this is very important for students so that they can get a good picture of the teachers.

The results of this study are also supported by the theory (Mardianto, 2014) which states the following indicators: understanding educational insight or foundation, understanding student characteristics, planning and implementation of learning programs, utilization of learning technology, evaluation of learning processes and outcomes, development of students to actualize their various potentials. Pedagogical competence in the world of teaching plays a very important role in improving student learning outcomes and this is supported by other competencies possessed by teaching teachers such as social, personality, and professional competencies. The results of the study support Eka Andriawati's thesis which examines the Influence of Teacher Pedagogical Competence on Student Learning Outcomes in Economics Subjects at SMA Negeri 1 Sungai Raya, Kubu Raya Regency. The results of the study show that there is an influence of teacher pedagogical competence on learning outcomes, the magnitude of the influence is 53.33%.

4. CONCLUSION

From the results of the study conducted on 60 respondents of Mts Darunnajah Jakarta students, it was found that teacher quality and pedagogical competence have a significant influence on student learning outcomes. Descriptive analysis shows that the average score of student learning outcomes is 89.28, with teacher quality and pedagogical competence having an average of 83.80 and 82.68, respectively. The normality test shows that all variables are normally distributed. Furthermore, the linearity test shows that there is a significant linear relationship between teacher quality and pedagogical competence on student learning outcomes. Regression analysis shows that teacher quality contributes 71% to student learning outcomes, while pedagogical competence contributes 66.1%. Simultaneously, both variables have an influence of 77.8% on student learning outcomes, with the remaining 22.2% influenced by other factors. Thus, improving teacher quality and pedagogical competence is proven to be important for improving student learning outcomes.

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