The Influence of Teachers' Professional Competence on Student Learning Outcomes in Social Science Education Subjects

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Abstract

This study aims to prove the influence of teacher professional competence on student learning outcomes at MTs Darul Hikmah Az-zikri NW Pringgarata and to examine how much teacher professional competence can illuminate student learning outcomes. This study uses a quantitative approach with the Associative method. Data were collected using questionnaires and documentation studies, where sampling applied a simple random sampling system distributed to 47 students. The questionnaire form applied a Likert scale score with four alternative answers, while the documentation study was only a complementary technique in data collection. Based on data processing and the results of SPSS ver.26 calculations, statistical testing resulted in Ho being rejected and Ha being accepted, which explained that there was an influence between teacher professional competence on student learning achievement. This was obtained from the results of the T-test which produced a significance value of 0.000 <5% (0.05). The calculation of the determination coefficient explains that the teacher professional competence variable is able to explain the student learning outcome variable by 25%. While the remaining 75% is explained by other variables that were not studied.

Contents

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Introduction

Education is an obligation for every human being because in essence humans are born helpless, and cannot immediately stand alone. Therefore, education is an absolute adult guidance that humans need (Sadulloh, 2010). Education as one of the most important factors in National Development is used as the mainstay in efforts to improve the quality of Indonesian human resources to be of higher quality (Supriadi, 2014). The main component in improving the quality of life is education. Through education, humans are able to develop themselves and know many things (Munfarida, 2022).

To achieve educational success, a role that is no less important than parents is educators, because educators are the main key to educational success. Teachers are elements in the field of education who must play an active role and position themselves as professionals in accordance with the demands of an increasingly developing society (Wahyuningsih, 2021). Teachers also greatly determine the success of students, especially in relation to the teaching and learning process (E. Mulyasa, 2008).

The role of teachers is very significant in efforts to improve the quality of education. Therefore, teachers are required to have the competence to organize the learning process as well as possible (Kurniasih, 2015). Teachers as educators who guide students should have broad disciplines that are relevant to their field of expertise and have noble morals/character as an example for students and professionalism in planning and implementing the education and learning process for both students and community service (Hully, 2012).

In accordance with the Regulation of the Minister of National Education (Permendiknas) of the Republic of Indonesia Number 16 of 2007, concerning the Standards of Academic Qualifications and Teacher Competence, it is explained that teacher competence is developed as a whole from four main competencies, namely: (1) Pedagogical Competence, (2) Personality Competence, (3) Social Competence, and (4) Professional Competence. All of these competencies are interconnected with each other. Meanwhile, Islamic Religious Teachers must have six competencies, namely: (1) Pedagogical Competence, (2) Personality Competence, (3) Social Competence, (4) Professional Competence, (5) Spiritual Competence and (6) Leadership Competence (KMA RI NO. 211 of 2011). There are at least 6 competencies or abilities that must be possessed by children and for the future. These skills are called 6C, namely Critical Thinking, Collaboration, Creative, and Innovative Thinking, Computational Thinking, Compassion and Communication. If this is done well, then teaching and learning activities will run effectively and smoothly. In fact, students can also get these skills for their future.

Thus, in the teaching and learning process, in terms of material, readiness and willingness of teachers to face various problems that will arise related to their profession, the behavioral factor of a teacher will greatly influence the success of their students in understanding and mastering the material being taught. Teachers must also be able to develop students' beliefs, practices, and social attitudes to understand and improve the learning process. This is closely related to the teacher's strategy in facing challenges in everyday professional life and the general welfare of students, and this forms the student learning environment and influences optimal learning outcomes (Yorman, 2024).

Teacher competence is the ability, authority or skill of teachers in carrying out their teaching profession or the ability of teachers to carry out their duties as educators, both in schools and in the community. Teacher competence is a set of mastery of abilities that must be present in teachers in order to be able to realize their performance appropriately and effectively (Kunandar, 2007:55). So, it can be concluded that teacher competence is the ability of knowledge, skills and attitudes that are manifested in intelligent and responsible actions in carrying out tasks as learning agents.

Professional teacher competence is the ability of teachers to master knowledge in the fields of science, technology and/or arts and culture that they teach (Jamil, 2013). Professional competence is the ability to master learning materials broadly and deeply that allows teachers to guide students to meet the competency sndards that have been set in the National Education Standards (Triyanto and Tutik, 2007). So, it can be concluded that professional teacher competence is the ability of a teacher to master the subject matter that will be taught and the basic concepts of science in depth. Competent teachers will be better able to manage their classes, so that student learning and teaching activities are at an optimal level and students are able to have

good learning outcomes. In learning Social Sciences (IPS), where IPS learning is an integration of various branches of Social Sciences and Humanities, such as sociology, history, geography, economics, politics, law, and culture that are associated with Education. So that the social studies learning process is not enough just by studying in class and using conventional learning models, but can use learning models that are in accordance with social studies subjects and create a classroom atmosphere that does not bore students (Yorman, 2023).

The implementation of social studies learning requires a teacher to have various competencies in providing understanding to students, especially accompanied by the rapid development of science and technology and if a teacher cannot follow these developments, it is certain to have an impact on the world of education. This is because technological advances can massively affect the attitude and ability of social studies in the classroom. The main problem in schools is the lack of learning outcomes. According to Hamalik (2007:30) learning outcomes are changes in behavior in a person that can be observed and measured in the form of knowledge, attitudes, and skills. Student learning outcomes are closely related to the value of students' knowledge abilities in the learning process, assessment of students' attitudes during the learning process in class, student skill values measured from the way students ask questions, students' accuracy in answering questions and how to express opinions in front of the class (Yorman, 2022).

Materials and Methods

This study uses quantitative research. According to Amin and Abunawas (2023) Quantitative research is a form of research that uses numerical data collection and analytical techniques to test hypotheses, draw conclusions, and understand the relationships between variables studied, with the aim of testing the established hypotheses.

The type of research used in this study is Associative research. Associative research is used in this study, because this type of research is appropriate for answering research questions that use two or more variables. According to Sugiyono (2019:65) the type of Associative research is a type of research that asks about the relationship or influence between two or more variables.

In this study, the population was 90 students of MTs Darul Hikmah Az-zikri NW Pringgarata with an error rate of 10% because it is considered to represent the population in the study, so the sample calculation is;

$$n = \frac{N}{1 + Ne^2}$$
$$n = \frac{90}{1 + 90\,(0.1)^2}$$
$$n = \frac{90}{1 + 90(0,01)}$$
$$n = \frac{90}{1,9}$$
$$n = 47$$

Based on the calculation results using the formula above, the minimum sample size needed in this study is 47 respondents. The number of 47 respondents is considered representative because it is greater than the minimum sample limit.

Results and Discussions

Results

Teacher Professional Competence Data was obtained from the results of a questionnaire distributed to 47 students in this study. With a total of 30 questionnaire items that have been tested for validity.

Table 3.1
Descriptive of Teacher Professional Competence

		Teacher Professional Competence
N	Valid	47
	Missing	0
Mean		85.98
Std. Error of Mean		1.624
Median		86.00
Mode		81
Std. Deviation		11.136
Minimum		30
Maximum		106

Source: Primary data processed.

Based on the table above, it can be seen that the average value (mean) of variable X (Teacher Professional Competence) is 85.98, the middle value (median) is 86.00, there are several values that appear most often (mode) namely 81 and the standard deviation value is 11.136. Data on Variable Y (Learning Outcomes).

Student Learning Outcomes Data were obtained from the average value of the Even Semester UTS Assessment of 47 students of MTs Darul Hikmah Az-zikri NW Pringgarata with the details attached. From these results, the researcher classified data related to student learning outcomes. Can be seen in detail with the attached data.

Table 3.2
Learning Outcomes

Learning Outcomes		
N	Valid	47
	Missing	0
Mean		81.91
Std. Error of Mean		.619
Median		82.00
Mode		80
Std. Deviation		4.242
Variance		17.993
Minimum		75
Maximum		90

Source: Primary data processed.

Based on the table above, it can be seen that the average value (mean) of the Y variable (Student Learning Outcomes) is 81.91, the middle value (median) is 82.00, there are several values that appear most frequently (mode) namely 80, and the standard deviation value is 4.242.

Analysis Prerequisite Test

Normality Test

The normality test is used to determine whether the data is normally distributed or not. A regression is said to be good when it has normally distributed data. The normality test in this study uses residual data tested with

Kolmogorov-Smirnov with a significance level of 5%. Data is said to be normally distributed if the Kolmogorov-Smirnov significance value is > 0.05.

Tabel 3.3
Uji Normalitas

		Unstandardized Residual
N		47
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	3.66050437
Most Extreme Differences	Absolute	.062
	Positive	.062
	Negative	-.058
Test Statistic		.062
Asymp. Sig. (2-tailed)		.200[c,d]

Source: Primary data processed.

Based on Table 4.5, the significance value of Kolmogorov-Smirnov is 0.200 so that the significance value can be used and compared with the value of α = 0.05. Based on the criteria for testing data normality using SPSS version 26, the Kolmogorov Smirnov significance value is more than 0.05 (0.200> 0.05), so it can be concluded that the learning outcome data is normally distributed.

Linearity Test

The linearity test aims to determine whether two variables have a significant or insignificant linear relationship. The linearity test is carried out using a significance level (sig) of 0.05. The following are the results of the SPSS version 26 linearity test, namely:

Table 3.4
Linear Test

		Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	(Combined)	558.026	24	23.251	1.897	.068
	Linearity	211.292	1	211.292	17.240	.000
	Deviation from Linearity	346.734	23	15.075	1.230	.315
Within Groups		269.633	22	12.256		

Source: Primary data processed.

Based on the results of the linearity test above, it can be seen that the significance value of the Deviation from Linearity is 0.315, so it can be concluded that there is a linear relationship between variable X (Teacher professional competence) and variable Y (Student learning outcomes) because the Deviation from Linearity (0.315) > significance level (0.05), so that the linearity assumption is met.

Hypothesis Test

To analyze the data in this thesis research, regression analysis was used to determine whether there was a significant influence on Teacher Professional Competence (X) on Learning Outcomes (Y). The formula used to calculate the regression line equation is:

Table 3.5
Results of Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	65.368	4.247		15.391	.000
	Teacher Professional Competence	.192	.049	.505	3.928	.000

Source: Primary data processed.

The Regression Equation above can be interpreted that if the teacher's professional competence increases by 1 unit, then the student's learning outcomes will increase by 0.192. While the intercept value of 65.368 shows the Y-axis intersection point when X is equal to zero, so that if the teacher's professional competence is 0, the student's learning outcomes are 65.368.

It is known that the r table in this study for the degrees of freedom dk = n-2 = 47-2 = 45 for alpha 5% is 0.287. While the calculation of t count as seen in table 4.9, it is known that the t count value for the X variable in the Y calculation is 3.928. When compared to the t table, the t count value is greater (3.928> 0.287) and the sig value <0.05 (0.00 <0.05) which means that the teacher's professional competence variable has a significant positive effect on the learning outcome variable. This proves that "There is a positive and significant influence between teacher professional competence and learning outcomes" is accepted.

The coefficient of determination is one of the tests to determine the magnitude of the influence of teacher professional competence (X) on student learning outcomes (Y) in a linear regression test. The results of the R value contained in the SPSS version 26 output can be seen, namely:

Table 3.6
Results of Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.505[a]	.255	.239	3.701

Based on the table above, the R value is 0.505 or according to the correlation coefficient interpretation guidelines, this figure is included in the category of moderate correlation because it is in the interval of 0.40-0.599. This shows that teacher professional competence has a moderate effect on learning outcomes.

In the output results above, it can be seen that the determination coefficient value (Adjusted R square) is 0.239 (23%). This value can be interpreted as the magnitude of the ability of the teacher professional competence variable to explain or explain the student learning outcome variable, which is 23%.

Discussions

The results of the study at MTs Darul Hikmah Az-zikri NW Pringgarata, to determine the effect of teacher professional competence on student learning outcomes, a hypothesis test was conducted to answer the formulation of the problem, is there an Effect of Teacher Professional Competence on Student Learning Outcomes at MTs Darul Hikmah Az-zikri NW Pringgarata? Using a partial test (T test) which produces Ha accepted and Ho rejected, so that there is an effect of teacher professional competence on student learning outcomes. This can be seen from the T test which produces a significance value on teacher professional competence of 0.000 <0.05. This shows the great contribution given by Teacher Professional Competence in explaining or explaining the variable of Student Learning Outcomes at MTs Darul Hikmah Az-zikri NW Pringgarata. Thus, it can be concluded that the null hypothesis (Ho) is rejected and the alternative hypothesis

(Ha) is accepted, so that there is a significant influence between Teacher Professional Competence on Student Learning Outcomes at MTs Darul Hikmah Az-zikri NW Pringgarata.

The results of the study are in line with Arifin's research (2020) Based on the results of research data on the Influence of Teacher Professional Competence on Student Learning Outcomes at SMP Islam Bani Hasan Tonawi Sukadana Selatan, Sukadatana District, East Lampung, it can be concluded that there is a positive and significant relationship between teacher professional competence on student learning outcomes, teachers teaching in front of the class on student learning achievement. This is shown through descriptive correlation analysis. In the correlation analysis test, at a significant level of 0.759. Strengthened by the results of Nurvianti's research (2017) entitled "The Influence of Teachers' Professional Competence on Student Learning Outcomes in Geography Subjects in Class X and XI IPS of Madrasah Aliyah Al-Khairaat Pusat Palu in 2017" and the results of the study were positive and significant. In line with Yusuf's opinion (2018) stating that teacher professional competence plays an important role in relation to student learning activities and outcomes. The teaching and learning process and student learning outcomes are not only determined by the school and its curriculum content, but are largely determined by the teacher's competence in teaching and guiding students.

Competent teachers will be better able to manage their classes, so that student learning is at an optimal level. Professional teachers are people who have special abilities and expertise in the field of teaching so that they are able to carry out their duties and functions as teachers as optimally as possible (Usman, 2005: 14-15). For this reason, teachers are required to have a set of abilities in their professional authority, in this case professional competence.

According to Jamil (2013:122), "Teacher professional competence is the ability of teachers to master knowledge in the fields of science, technology and/or arts and culture that they teach. Meanwhile, according to Triyanto and Tutik (2007:72) professional competence is the ability to master learning materials broadly and deeply which enables teachers to guide students to meet the competency standards that have been set in the National Education Standards. So, it can be concluded that teacher professional competence is the ability of a teacher to master the subject matter to be taught and the basic concepts of science in depth.

Learning outcomes are student skills obtained after learning (Nugraha, 2020). Furthermore, learning outcomes are certain skills or abilities achieved by students after participating in the teaching and learning process, which include cognitive, affective, and psychomotor skills (Wulandari, 2021). Based on the opinion above, it can be concluded that learning outcomes are changes in behavior resulting from learning experiences, which include changes in attitudes, knowledge and skills.

According to the research results of Yusuf (2018), it is stated that the professional competence of teachers plays an important role in relation to student learning activities and outcomes. The teaching and learning process and student learning outcomes are not only determined by the school and its curriculum content, but are largely determined by the teacher's competence in teaching and guiding students. Competent teachers will be better able to manage their classes, so that student learning is at an optimal level.

Conclusion

It can be concluded that there is an influence of teacher professional competence on social studies learning outcomes at MTs Darul Hikmah Az-zikri NW Pringgarata in the 2023/2024 Academic Year. Where the hypothesis test that shows the influence of teacher professional competence on learning outcomes is proven by the results of t count> t table (3.928> 0.287) or sig. value. 0.000 less than 0.05, which indicates that the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted. The contribution of teacher professional competence in explaining student learning outcomes is 23%.

The results of the study also show that the variable of teacher professional competence (X) at MTs Darul Hikmah Az-zikri NW Pringgarata is still in the moderate category, as are the learning outcomes of students at MTs Darul Hikmah Az-zikri NW Pringgarata which are in the moderate category. Thus, student learning outcomes can be improved again by strengthening teacher professional competence to schools. In line with this, students will experience an increase in learning outcomes as teachers (educational staff) improve their professional competence.

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