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The Relationship of Teacher Perceptions of Educational Standards and Madrasah Head Leadership Style in Improving Teacher Performance

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Abstract

This research aims to discover: (1) The influence of teacher perceptions about educational standards on teacher performance. (2) The principal's leadership style influences teacher performance. (3) The influence of teachers and the principal's leadership style on teacher performance. This research focuses on Madrasah Ibtidaiyah Negeri (MIN) in West Tulang Bawang Regency, Lampung. This research method includes correlational/associative with a quantitative approach. Data collection techniques are carried out through observation, questionnaires, and documentation. Meanwhile, in obtaining the data that has been received, there is an influence of teacher perceptions about educational standards and the principal's leadership style on teacher performance. First, the regression analysis calculated t value reached 2.594, exceeding the t table value of 0.320 with a significance of 0.014, lower than 0.05. In addition, the teacher's perception of educational standards (R Square) is 0.157, showing that the principal's leadership can explain around 15.7% of teacher performance. Second, the regression analysis calculated t value for teacher perceptions reached 3.583, exceeding the t table value of 0.320, with a significance value of 0.001 which is less than 0.05. Third, the magnitude of the influence of teacher perceptions on educational standards is (R Square) 0.263, which indicates that around 26.3% of teacher performance can be explained by teacher professionalism. Third, with the calculated F regression results of 9.437, greater than the value of 3.27, with a significance value of 0.001, less than 0.05. In addition, the influence of teachers' perceptions of educational standards and principals' leadership styles (R Square) of 0.350 indicates around 35% of variation in teacher performance.

Keywords: madrasah leadership style, teacher perception, educational standards, teacher performance

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Introduction

The leadership style of the madrasah head is the approach or method used by the leader in managing, influencing, and guiding all educational staff, as well as students, in achieving academic goals at the madrasah. This can include various aspects, such as making decisions, providing direction, building effective communication, and creating a conducive learning environment (Thanh & Quang, 2022). Where, this leadership style emphasizes the importance of the leader's role in achieving optimal performance. This can affect the learning environment and school discipline, especially for teachers as professional educators (Kadarsih et al., 2020). Several task-focused leadership styles of madrasah principals include styles that tend to be authoritarian, styles that tend to be democratic, and styles that are more moderate (Sagala, 2018). In addition, metrics that can be used to measure the ability of madrasa heads to manage educational resources include: (1) management and utilization of teaching staff; (2) management of facilities and infrastructure; (3) financial management; (4) environmental management, comfort and health; (5) administration; (6) information system management and decision making; (7) management of services that support learning activities; and (8) use of technology in the learning process (Sukamto, 2013).

In the madrasa environment, the impact of principals' transformational and transactional leadership styles on job satisfaction and teacher performance is widely studied in various countries (Maheshwari, 2022; Sarwar et al., 2023). A good leader must understand different aspects of leadership behavior and recognize roles when leadership is needed. In managing an organization, the right leader must realize the vision and maintain effective communication, with skills capable of positively contributing to the institution (Piwowar-Sulej & Iqbal, 2023). On the other hand, the madrasa head is considered one of the most influential individuals in the school. The principal's main role includes determining the direction of leadership, designing and creating a vision of success, and implementing plans to realize that vision (Sanchez et al., 2022). Because this can have an impact on National Education Standards, including: "graduate competencies, content, financing, and assessment of education" (Even & BenDavid-Hadar, 2021). Apart from that, important elements in leadership include the ability to build relationships, coordinate, motivate, persuade, cajole, and influence others to improve the quality of the madrasah (Schmitz et al., 2023).

Perception is defined as the process by which individuals to organize, interpret, and interpret impressions to provide meaning to the environment around them (Ma'ruf et al., 2024; Sabarini, 2021). According to Walgito, perception indicators include: (1) Having absorption of stimuli or objects from outside the individual, (2) Having an understanding of images or impressions that can be clarified, (3) Having judgments or evaluations that can be compared with these criteria or norms (Walgito, 2010). In madrasah institutions, a leader must create a positive perception among teachers in carrying out their duties as a responsibility for their leadership (Ghamrawi & Al-Thani, 2023). Meanwhile, in the context of teacher perception, it means a response to an object after going through a sensing process and interpreting the circumstances around it (Asrin, 2021). Teachers' perceptions of the principal's encouragement to further develop educational practices are important in improving their professionalism as leaders (Rechsteiner et al., 2022). The success of the principal's leadership role cannot be separated from how the teachers assess it. On the other hand, teachers' perceptions to determine the leader's work standards can be used as a guide to evaluate the success of the madrasa head's leadership style that has been implemented (Sugiri & Ma'shum, 2022).

The development of education in Indonesia is currently still experiencing instability. Based on information from the "Social Progress Index", with indicators that include access to decent education, Indonesia is ranked 38th out of 50 countries regarding a country's progress (Ramdani et al., 2019). It is also apparent that several education systems are now facing declining levels of academic achievement. As a result, educational policymakers and practitioners ignore each other and do not look for ways to improve academic performance (AGIRDAG & MUIJS, 2023). This happens because there is a lack of good and balanced cooperation between stakeholders, including madrasah leaders and all educational staff (Nurkhasanah et al., 2023). Apart from that, this is also very influential if the madrasa head cannot apply an effective leadership style, this will have an impact on teacher performance in achieving optimal results (Kusvitaningrum et al., 2021). In addition, attention is paid to the emergence of teachers who do not utilize learning time effectively, which is identified through situations in the learning process. This is a case where teachers often arrive late and are less creative in delivering lesson material in class (Elazhari et al., 2022).

Recently, problems related to Islamic educators have become increasingly complex (Susanti et al., 2024). For example, in the context of leadership, it appears that several madrasa heads are currently unable to handle various organizational and other problems (Yada & Jäppinen, 2022). This happens because many tasks must be completed; madrasah leaders often experience stress, emotions, and get tired easily (Ghamrawi & Al-Thani, 2023). The reality shows that differences in

perception usually result in communication not going well. For example, communication between school principals and teachers in achieving planned goals is often hampered due to a mismatch in understanding between the two. These different factors can hurt communication, such as the emergence of hostility, conflict, and so on (Silviani, 2020). Apart from that, it can be seen that the productivity of leaders and teaching staff is decreasing. Unsupportive working conditions, low attendance rates, and many complaints and demands are often problems (Hamdan & Afan, 2022a). Therefore, a leader must have the abilities and skills to carry out his duties and functions optimally to achieve effective leadership. This includes comprehensive efforts and efforts to encourage the implementation of tasks by the stated objectives (Rifai et al., 2022).

Several trends in previous research regarding the relationship between teacher perceptions of educational standards and the leadership style of madrasah principals in improving teacher performance show three categories of significant findings. *First*, Several studies show that teachers' positive perceptions of educational standards can increase their motivation and commitment to teaching (Bektaş et al., 2022; San-Martín et al., 2020; Zhang et al., 2021). *Second*, research highlights that the leadership style of madrasah principals, especially transformational, contributes greatly to creating a supportive work environment where teachers feel valued and involved in decision-making (Hasanah et al., 2023; Zaini & Syafaruddin, 2020). *Third*, the study discusses the importance of effective communication between madrasah principals and teachers, allowing a better understanding of established educational standard (Maruhawa et al., 2022; Wahib, 2024). The overall research findings confirm that good collaboration between teacher perception, leadership style, and communication can be important in improving teacher performance. However, there is no research on "the relationship between teacher perceptions of educational standards and the leadership style of madrasah principals in improving teacher performance". Thus, there is a novelty in this topic based on relevant research findings.

Based on the problems identified, this research aims to investigate (1) The influence of teachers' perceptions of educational standards on their performance, (2) The influence of the madrasah principal's leadership style on teacher performance, and (3) The influence of teachers and the madrasah principal's leadership style on performance. Teacher. This research focused on the State Ibtidaiyah Madrasah (MIN) in West Tulang Bawang Regency. This is because the researcher's interest in conducting this research was partly motivated by the inconsistency between teachers' perceptions of the educational standards set, the leadership style of the madrasa head, and teacher performance. Other problems also arise due to differences in interpretation of educational standards and leadership styles. This can influence how teachers feel supported and motivated to achieve optimal performance. In addition, some conflicts or ambiguities in these perceptions can impact the effectiveness of educational policy implementation and overall school management.

Method

This research is correlational/associative research conducted to find the relationship between one or more independent and dependent variables. The approach used is quantitative (Leavy, 2022). Data collection techniques are carried out through (observation, questionnaires, and documentation). To serve as a reference in this research, use a "Likert Scale" 5, which refers to (1) Value 5 = Always, (2) Value 4 = Often, (3) Value 3 = Sometimes, (4) Value 2 = Never, (5) Value 1 = Never. The respondents in this research were 38 teachers. The independent variables in this research are teacher perceptions and leadership style with indicators shown in the following table.

 Table 1. Free Indicators (X)

No	Rated Aspect				
INO	Teacher Perception (X1)	Leadership Style (X2)			
1	Mastering the curriculum	Has a strong personality			
2	Mastering the lesson material	Understand the conditions of teacher and student em- ployees			
3	Mastering learning methods and evaluation	Have a vision and understand the mission of the mad- rasah			
4	Responsibility for tasks	Ability to make decisions			
5	Discipline	Communication skills			

Then, to find out several aspects assessed in the dependent variable, the researcher-shows them in the following table.

Table 2. Dependent Variable (Y)						
No	Indicator	Rated Aspect				
1		Ability to prepare teaching programs				
2		Ability to present teaching programs				
3	Teacher Performance	Ability to analyze learning results				
4		Ability to develop improvement and enrichment programs				
5		Ability to develop guidance programs and follow up				

Next, to test the instrument using (1) Validity and (2) Reliability. According to Arikuntoro, an instrument is valid if it can accurately reveal data from the variables studied. An instrument's validity level reflects the extent to which the data collected does not deviate from the representation of the variable in question (Arikunto, 2002). In reliability testing using the formula "*Spearman-Brown*," $r_i = \frac{2}{1+r_b}$ with description r_i = internal reliability of all instruments. r_b = correlation "*Products Moment*" between the first and second hemispheres. To analyze the data, researchers used (1) Data Normality Test, which uses a formula "*Kolmogorof Smirnof*" (K-S) using SPSS 2, (2) Homogeneity Test, to obtain an accurate estimate of the increase in the dependent variable, (3) Heteroscedasticity Test, to determine whether the linear regression model is inefficient and accurate. Then, for hypothesis testing (1) Hypothesis testing, with the formula "*regresi linier*", (2) Partial Significance Test (T-Test), (3) Simultaneous Significance Test (F Test), and (4) Determination Coefficient Test (R²).

Results and Discussion

Teacher Performance on Educational Standards

The teacher performance variable (Y), is measured using a questionnaire of 15 statements. "... From data obtained through a questionnaire filled out by 38 respondents, the highest score was 109, the lowest score was 86, the median score was 101, and the average score was 99.95, with a mode of 101 and a standard deviation of 6.354. The ideal maximum score is determined using the formula $32 \times 4 = 128$. The number of classes is calculated using the Sturges Rule formula: $k = 1 + 3.3 \log n$; the calculation becomes $1 + (3.3 \times 1.58) = 6.214$, producing six classes. The class range can be calculated using the formula: maximum score - minimum score, so the data range is 109 - 86 = 23. The class length is calculated by dividing the data range by the number of classes, namely 23: 6 = 3.83, rounded to 4." The following is a frequency distribution table for teacher performance variables.

Based on Table 3, the class interval frequency distribution of teacher performance variable data shows that.

Table 3. Data Distribution of Teacher Performance Variables (Y)					
No	Intervals	Frequency	Presentation		
1	86-89	4	11%		
2	90-93	3	8%		
3	94-97	2	5%		
4	98-101	15	39%		
5	102-105	6	16%		
6	106-110	8	21%		
Total		38	100%		

From the results of table 3, it explains that "... In number 1, namely the interval class 86 to 89, 4 students are amounting to 11%; number 2, namely the interval 90 to 93, there are 3 students at 8%, number 3, namely the interval 94 to 97, there are 2 students at 5%, number 4 is interval 98 to 101 as many as 15 students amounting to 39%, number 5 namely interval 102 to 105 as many as 6 students amounting to 16%, number 6 namely interval 106 to 110 as many as 8 students amounting to 21%." Using the frequency distribution table of teacher performance variables, the histogram of the frequency distribution of teacher performance variables can be seen in the following figure.



Figure 1. Frequency Distribution Histogram of Teacher Performance

After calculating the frequency distribution, the variable trend is then calculated. Based on the calculation results, the teacher performance's ideal average (Mi) is 97.5, and the perfect standard deviation (SDi) is 4. The frequency trend table for each category can be seen in Table 9, as follows:

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Table 4. Trends in Teacher Performance							
Variable Trends							
No	Category	Score	Amount	Presentation			
1	Low	X< 93,5	7	18%			
2	Currently	93,5≤ X <101,5	17	45%			
3	Tall	X≥101,5	14	37%			
Total			38	100%			

Based on table 4, regarding the distribution of trends in teacher performance variables, it shows that. "... Where, teacher performance in the low category with a score of less than 93.5 received a percentage of 18% (7 respondents), the medium category with a score of more than equal to 93.5 less than 101.5 received a percentage of 45% (17 respondents), and the high category with a score of more than equal to 101.5 obtained a percentage of 37% (14 respondents). This data shows that the medium category has the largest percentage, namely 45%, so it can be concluded that teacher performance is in the medium category." The following is a pie chart showing trends in teacher performance variables.

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Figure 2. Pie Chart of Trends in Teacher Performance Variables

Teacher Perceptions

Using a questionnaire consisting of 15 statements, teacher perception variables were measured. As obtained data is below.

"... Based on data obtained from a questionnaire filled out by 38 respondents, the highest score was 76, the lowest score was 62, the median score was 68.50, the average score was 68.32, the mode of the data was 65, and the standard deviation was 4.294. Ideal maximum score = $22 \times 4 = 88$. The number of classes is calculated using the Sturges rule formula, namely = k = 1 + 3.3 long; the calculation = 1 + (3,3). 1.58 = 6, 214, so we get 6 classes. The class range can be calculated using the formula = maximum score – minimum score. Then data range = 76 - 62 = 14. Class length = data range: number of interval classes 14:6 = 2,333." The following is a distribution table of teacher perception frequency variables.

Table 5. Teacher Professional Data Variables (X2)						
No	Intervals	Frequency	Presentation			
1	62-64,3	9	24%			
2	64,4-66,7	6	16%			
3	66,8-66,9	6	16%			
4	69,2-71,5	6	16%			
5	71,6-73,9	6	16%			
6	74-76,3	5	13%			
	Total	38	100%			

Based on the class frequency distribution table, the data interval for the teacher professionalism variable is as follows.

"... Number 1 is the interval class 62 to 64.3 with 9 students amounting to 24%, number 2 namely the interval 64.4 to 66.7 with 6 students amounting to 16%, number 3 namely the interval 66.8 to 69.1 as many as 6 students amounting to 16%, number 4 namely the interval 69.2 to 71.5 as many as 6 students amounting to 16%, number 5 namely the interval 71.6 to 73.9 as many as 6 students amounting to 16%, number 6 namely the interval 74 up to 76.3 as many as 9 students amounting to 13%." For greater clarity, based on the distribution table of the teacher professionalism frequency variable, a histogram of the distribution of the teacher professionalism frequency variable can be created as shown in the image below.

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Figure 3. Frequency Distribution Histogram of Teacher Perception

After calculating the frequency distribution, the next step is to calculate the trend variable. Based on the calculation results, the ideal average (Mi) of teacher perception is 69, and the perfect standard deviation (SDi) is 2.3. The frequency trend table for each category can be seen in Table 6 below.

No	Category	Score	Amount	Presentation
1	Low	X < 66,3	15	39%
2	Currently	66,3≤ X <71,3	11	29%
3	Tall	X ≥ 71,3	12	32%
Total			38	100%

Table 6 Trands in taacher percention variables

Table 6 shows the distribution of trends in teacher perception variables. "... Teacher perceptions in the low category with a score of less than 66.3 obtained a percentage of 39% (15 respondents), the medium category with a score of more than equal to 66.3 less than 71.3 obtained a percentage of 29% (11 respondents), and the high category with a score of more than equal to 71.3 obtained a percentage of 32% (12 respondents). This data shows that the low category has the largest percentage, namely 39%, so it can be concluded that teacher perceptions are still low." For example, figure 4 shows a pie chart depicting trends in teacher perception variables.



Figure 4. Pie Chart of Teacher Perception Trends

Madrasah Head Leadership Style

In this case, the results of the madrasa head leadership style variable were measured using a questionnaire consisting of 15 statements. The following is the data obtained.

"... Based on data obtained from a questionnaire filled out by 38 respondents, the highest score was 94, the lowest score was 78, the median score was 87.50, the average score was 85.97, the data mode was 90, and the standard deviation was 5.012. Ideal maximum score = $28 \times 4 = 112$. The number of respondents is calculated using the Sturges Rule formula, namely = k = 1 + 3.3 log n; the calculation = 1 + (3,3). 1.58= 6,214, so 6 classes of respondents were obtained. The class range of respondents can be calculated using the formula = maximum score – minimum score. Then data range = 94 - 78 = 16. Class length = data range: number of

No	Intervals	Frequency	Presentation
1	78-80	8	21%
2	81-82	7	18%
3	83-85	2	5%
4	86-88	10	26%
5	89-91	2	5%
6	92-94	9	24%
	Total	38	100

interval classes 16: 6 = 2.667 rounded to 3." The following table shows the frequency distribution of madrasa head leadership style variables for further clarity.

The results of Table 7 show the data interval for the madrasa head leadership variable; this is based on class frequency distribution data, which shows that. "... In number 1, namely the interval class 78 to 80, there are 8 teachers amounting to 21%; number 2, namely the interval 81 to 82, there are 7 teachers at 5%, number 3, namely the interval 83 to 85, there are 2 teachers at 5%, number 4 is "The interval 86 to 88 is 10 teachers at 26%, number 5 is the interval 89 to 91 is 2 teachers at 5%, number 6 is the interval 92 to 94 is 9 teachers at 24%." As for the distribution of the leadership frequency variable for madrasah heads, the histogram of the distribution of the leadership frequency variable can be depicted in the diagram below.



Figure 5. Frequency distribution histogram of madrasa head leadership

After calculating the frequency distribution, the next step is to calculate the trend variable. From the calculation results, the ideal mean (Mi) for school principal leadership is 86, and the perfect standard deviation (SDi) is 3. The frequency trend table for each category can be seen in the following table.

	Table 8. Leadership Tendencies of Madrasah Heads							
No	Category	Score	Amount	Presentation				
1	Low	X < 83	15	39%				
2	Currently	83 ≤ X <89	12	32%				
3	Tall	X ≥ 89	11	29%				
	Total		38	100%				

Table 8, regarding the trend distribution of madrasa head leadership style variables, shows that.

"... Madrasa head leadership in the low category with a score of less than 83 received a percentage of 39% (15 respondents), the medium category with a score of more than equal to 83 less than 89 obtained a percentage of 32% (12 respondents), and the high category with a score of more than equal to 89 obtained a percentage of 29% (11 respondents). This data shows that the low category has the largest percentage, namely 39%, so it can be concluded that school principals' leadership is still low." For example, the following 6 circle diagram shows madrasa head leadership variables trends.



Figure 6. Pie Chart of Leadership Trends of Madrasah Heads

Analysis Test Requirements

Normality Test

The data normality test is required before the analysis used in research requires that the variable data be normally distributed or close to normal. The data obtained from the calculation results are as follows:

1. Histograms



Figure 7. Normality Test Histogram

Figure 7, shows the results are normally distributed because the right and sides are low and the middle is high.

2. P-Plot



Figure 8. P-Plot of Normality Testing

To understand the P-plot results, see if the small circles follow the diagonal line. This can be seen from the image above; it is clear that if the circle follows a diagonal line, it is considered to be normally distributed.

3. Kolmogorov Smirnov

Researchers used Kolmogorov Smirnov as a normality test to get more accurate results. This was done using SPSS 16, because the normality test can only be seen through histograms and P-plots, which are considered less accurate and do not show normality values clearly. The results of this normality test are shown in the following table.

Table 9. Normality Test Results								
One-Sample Kolmogorov-Smirnov Test								
		Teacher	Per-	Leadership	Performance			
		ceptions		Style				
Ν		33		33	33			
Normal Parameters ^a	Mean	63.5152		66.2727	69.5455			
	Std. Devia- tion	6.32515		8.41974	5.46060			
Most Extreme Differ-	Absolute	.168		.233	.159			
ences	Positive	.153		.150	.159			
	Negative	168		233	158			
Kolmogorov-Smirnov Z		.965		1.339	.913			
Asymp. Sig. (2-tailed)		.309		.055	.375			
Test distribution is Normal.								

This table shows that the significance value of the normality test results is 0.171, which means the value is greater than 0.05. Thus, it can be concluded that the normality test results in this study show a normal distribution.

Multicollinearity Test

This test is used to test whether there is a relationship between independent variables and whether there is a relationship in the regression equation. A correlation was found between the independent variables. In the regression model, it can be seen from the tolerance value and the variance inflation factor (VIF). The cut-off value that is commonly used to indicate the presence of multicollinearity is a tolerance value >0.10 or a VIF value >10 with a coloniality level of 0.50, and an overview of the multicollinearity results on the independent variables can be shown in the following table:

Table 10. Multicollinearity Test Results									
Coefficients ^a									
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics			
	В	Std. Error	Beta			Tolerance	VIF		
(Constant)	20.511	6.844		2.997	.005				
Teacher Per- ceptions	.546	.100	.632	5.477	.000	.916	1.091		
Style Leadership	.217	.075	•334	2.896	.007	.916	1.091		

The table above shows that the VIF value is 1.091, which means VIF < 10, and the Tolerance value is 0.916, which indicates TV > 0.1. Thus, it can be underlined that there is no multicollinearity in the variables of this study.

Heteroscedasticity Test

This test aims to test whether there is an inequality of residual variance between one observation and another in the regression model. To determine whether heteroscedasticity occurs, you can see a graphic plot showing the relationship between the predicted value of the dependent variable (ZPRED) and the residual (SRESID). Heteroscedasticity does not occur without a clear pattern, and the points are spread above and below the number o on the Y-axis. For more details, see Figure 8, which can be seen in the graph plot below.



Figure 9. Heteroscedasticity Test Results

Based on the image above, it can be seen that there is no clear pattern, and the points are scattered above and below the number o on the Y-axis. This shows that the data in this study does not have heteroscedasticity. The calculation of the heteroscedasticity test can also be seen from the significance value. If the significance value is > 0.05, then it is stated that there are no symptoms of heteroscedasticity, and vice versa.

	Table 11. Heteroscedasticity Test Results							
Coeffic	ients ^a							
Model		Unstandardized Coefficients		Standardized t S Coefficients		Sig.		
			Std. Error	Beta				
	(Constant)	- 1.163	5.664		205	.838		
	Teacher Perceptions	- .007	.046	015	154	.878		
	Style Leadership	.040	.041	.094	•957	•341		
	Dependent Variable: RE	S2						

Based on the table above, it can be seen that the significance value of variable X1 is 0.878, and variable X2 is 0.341, where both significance values are greater than 0.05. Therefore, it can be concluded that the results of the heteroscedasticity test show no symptoms of equality of residual variance between one observation and another, or in other words, there is no heteroscedasticity.

Hypothesis Testing

1. Hypothesis Test Results

Partial t-test

This test individually tests the independent variable's influence on the dependent variable. The t-test results can be seen based on the analysis results, which are displayed in the following table.

		Та	ble 12. t test re	esults		
Со	efficients ^a					
Model		Unstandardized Coeffi- cients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	63.294	10.061		6.291	.000
	Teacher Per- ceptions	.327	.083	.363	3.957	.000
	Teacher Per- formance	.049	.074	.061	.664	.508
De	pendent Variable	Teacher Per	formance	·		

It is known from the table above that the t-test value was obtained for the teacher perception variable and the principal's leadership style on teacher performance. Teacher perceptions of educational standards (X1) influence teacher performance (Y). It is known if.

"... Ha: There is a significant influence between teacher perceptions of educational standards on the performance of MIN Tulang Bawang Barat teachers. Then, Ho: There is no significant influence between teacher perceptions of educational standards on the performance of MIN teachers in Tulang Bawang Barat Regency."

Judging from the results of the table above, it is known that the teacher perception variable towards educational standards (X1) has a positive and significant effect on the teacher performance variable (Y). "This can be seen in the sig value. x1 of 0,000 < 0,05. and value $t_{table} = \alpha/2$: n-k-1= 0,05/2: 109-2-1= 0,025/106 = 1.98260. Results t_{count} as big as 3.957; then it can be seen if the value $t_{count} > t_{table} / 3,957 > 1.98260$. then Ho is rejected, and Ha is accepted."

The influence of the madrasa head's leadership style (X2) on teacher performance (Y)

"... It is known if: Ha: There is a significant influence between the leadership style of school principals on the performance of MIN 1 teachers throughout Tulang Bawang Barat Regency. Ho: There is no significant influence between the leadership style of school principals on the performance of MIN teachers in Tulang Bawang Barat Regency.

Thus. Acquisition "… From the t-test table above, the results show that the principal's leadership style variable affects the teacher performance variable. This can be seen from the significance value of X2 of 0,508 > 0,05 and value t_{count} as big as 0,664, which means value $t_{count} < t_{table}$, then it can be concluded that H0 is accepted and Ha is rejected."

Simultaneous F Test

The F test is used to rotate independent variables and related variables simultaneously. The following analysis results are presented in the table below.

	Table 13. F test results								
ANOVA ^b									
Model		Sum Squares	of	Df	Mean Square	F	Sig.		
1	Regression	126.205		2	63.103	8.928	.000 ^a		
	Residual	749.189		106	7.068				
	Total	875.394		108					

a. Predictors: (Constant), madrasa head leadership style, teacher perceptions of educational standardsb. Dependent Variable: teacher performance

Based on data from table 13, it can be seen that. "... If value F_{count} as big as 8,928 and to know the value F_{table} adalah (k : n-k) = (2: 109-2) = (2:107) = 3,08. Then, it can be seen if the value $F_{count} > F_{table}$ (8,928>3,08. If the sig value is equal to 0,000 < 0,05, then it can be concluded that Ho is rejected and Ha is accepted. So, it can be concluded that the variables of teacher perception of educational standards and the leadership style of madrasah heads simultaneously significantly affect teacher performance in MIN throughout Tulang Bawang Barat Regency.

Determination Coefficient Test

Table 14. Coefficient of Determination Test Results							
Model Summary							
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate		
1	.380ª	.144	.128		2.65854		
a. Predictors: (Constant), madrasa head leadership style, teacher perceptions of educational standards.							

When calculating the Adjusted R Square in multiple regression analysis, it shows a coefficient of determination of 0.128. This means that the ability of the independent variable to influence the dependent variable is 12.8%, while the other 87.2% is influenced by other variables.

Multiple linear regression analysis test

		Table 15. Mul	tiple linear regre	ssion results		
Coeffici	ents ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	63.294	10.061		6.291	.000
	Teacher Perceptions	.327	.083	.363	3.957	.000
-	Leadership Style	.049	.074	.061	.664	.508

a. Dependent Variable: Teacher Performance

In this table, it can be confirmed that. A regression equation was created from the multiple linear regression analysis results shown in the table above.

 $Y = a + \beta_1 X_{1+} \beta_2 X_{+} e.$

Y= 63,294+0,327X1+0,049X2 +e

In this case, "... The regression equation above can be underlined: (1) A constant of 63.294 means that if the teacher's perception (X1) of the principal's leadership style (X2) is o, then the teacher's performance (Y) has increased. (2) The regression coefficient for the teacher perception variable (X1) shows a positive coefficient of 0.327, indicating that teacher perception improves teacher performance. Then, the regression coefficient."

Discussion

Improving the quality of education has become a national strategic concern, with research focused on education quality management. Teacher performance is a key element in determining the achievement of madrasah quality by educational standards (Asy'arie, 2023; Prayitno et al., 2022). In this case, measuring teacher performance must cover the entire learning process and educational stages which are the responsibility of the teaching profession (Prita Indriawati, 2022). One important aspect is learning planning, where the teacher's performance in preparing plans

includes mapping competency standards and core subject competencies into learning plans, determining time allocation, and planning the use of media, learning methods, and strategies (Handayani, 2019). According to Anwar, stating that. "... To improve teacher performance, including (1) teacher education improvement programs; (2) equalization and certification programs; (3) competency-based integrity training program; (4) educational supervision program; (5) MGMP empowerment program (subject teacher deliberation); (6) conducting research (Anwar, 2020)." Achieving positive performance it can certainly provide results such as loyalty, discipline, cooperation, initiative, and other special factors that are relevant level of work that has been done (Damanik, 2019).

The teacher's perception is his personal view of the surrounding environment. For example, in an educational context, these perceptions could be their assessment of the school principal's leadership, students, or educational conditions that influence their teaching methods (Khotijah, et al, 2021). Teacher perception Refers to their response to the implementation of training or guidance by the school principal. The school principal plays a supervisory role, which includes providing training and advice to help teachers overcome various educational problems they face during the learning process in the classroom (Dewi, 2022). According to Marlina, confirmed that. "... Research at the Sijunjung Regency State Vocational School confirmed that teachers' perceptions of the principal's task-oriented leadership style reached 3.6 with an achievement level of 72%. This achievement is classified as a sufficient category; this shows that effective implementation of a subordinate-oriented leadership style includes motivation, teacher participation in decision making, strengthening confidence in tasks, and developing interpersonal relationships" (Marlina, 2020).

Style or attitude shows how a leader or individual manages an institution or institution. In the educational context, madrasah leadership style is an approach that is applied or implemented to influence other people according to the leader's wishes (Sulfemi, 2020). A madrasah's success is determined not only by adequate facilities and resources but also by the person who is a leader at the madrasah. Even though madrasas have good facilities and infrastructure, adequate funding, and quality human resources, leadership achievements can be hampered if the madrasa head does not behave professionally (Tanjung et al., 2021). In addition, the success of an organization or Islamic educational institution (madrasah) is greatly influenced by the leader's ability to respond to changes in the internal and external environment. The challenge for an academic leader in a madrasah is to become a driver or pioneer of change in the institution they lead (Hamdan & Afan, 2022b). To provide a good assessment of teachers, madrasah heads need to have the ability to implement innovation, give direction to members throughout the school, as well as change mindsets, and improve the vision and mission by utilizing the talents, skills, and abilities of members as well as carrying out effective communication and carrying out other efforts (Kartini, Syarwani Ahmad, 2020). So, this can improve optimal performance for all educational staff in madrasas.

According to Huma, et al., he confirmed this. The madrasa head plays an important role in moving the madrasa organization he leads. Apart from functioning as a manager, the madrasa head also plays a role as a thinker and developer to plan the progress of his institution (Huma, et al., 2024). A madrasa head is expected to demonstrate high professionalism, excel well, be superior to his colleagues, and have a strong moral commitment to his professional code of ethics (Megiati, 2019). On the other hand, improving the quality of education in schools depends not only on continuous interaction between teachers and students to create an effective learning atmosphere. Still, it is also influenced by a learning environment that provides comfort (Starlinsky et al., 2022). Every improvement in the quality of the madrasa head's leadership style will positively impact teacher performance. An effective leadership style can manage an organization and motivate team members to improve their performance (Darmawan, 2019). In this way, madrasah heads' leadership is expected to optimize and utilize all existing potential and resources and create a school atmosphere that supports achieving the desired targets.

Conclusion

Based on the findings from this research, these conclusions include. "... First, there is a positive and significant influence of the leadership style of madrasah heads on teacher performance in MIN throughout West Tulang Bawang Regency. This is proven by the t-count regression results for madrasa head leadership of 2.594, which is greater than the t table of 0.320 with a significance value of 0.014<0.05. The magnitude of the influence of teachers' perceptions of educational standards and teachers' perceptions of educational standards is seen from the coefficient of determination (R Square) value of 0.157, indicating that teacher performance is influenced by the leadership of the madrasa head by 15.7%. Second, there is a positive and significant influence on teacher perception of educational standards on teacher performance. This is proven by the t-count regression results of teachers' perceptions of educational standards of 3.583, which is greater than the t table of 0.320 with a significance value of 0.001<0.05.

The magnitude of the influence of teachers' perception of educational standards is seen from the coefficient of determination (R Square) value of 0.263, indicating that teacher professionalism influences teacher professionalism by 26.3%. *Third,* there is a positive and significant influence on teachers' perceptions of the educational standards of the leadership style of madrasa heads together on teacher performance. This is proven by the regression results in F_{count} amounting to 9.437>3.27 with a significance value of 0.001<0.05. The magnitude of the influence of teachers' perceptions of educational standards and the madrasa head's leadership style together on teacher performance is seen from the coefficient of determination (R Square) value of 0.350, thus indicating that teacher performance is influenced by teachers' perceptions of educational standards and the head's leadership style. madrasas by 35%."

Reference

- AGIRDAG, O., & MUIJS, D. (2023). School leadership development and academic achievement: Effectiveness of the High Performing Schools programme. *International Journal of Educational Research*, 122, 102248. https://doi.org/10.1016/j.ijer.2023.102248
- Anwar, A. S. (2020). Pengembangan Sikap Profesionalisme Guru Melalui Kinerja Guru Pada Satuan Pendidikan MTS Negeri 1 Serang. Andragogi: Jurnal Pendidikan Islam Dan Manajemen Pendidikan Islam, 2(1), 147–173. https://doi.org/10.36671/andragogi.v2i1.79

Arikunto, S. (2002). Prosedur Penelitian: Suatu Pendekatan Praktik. Jakarta: PT. Rineka Cipta.

- Asrin, A. (2021). Manajemen Kepemimpinan Kepala Sekolah dan Kinerja Guru. Pasaman: Azka Pustaka.
- Asy'arie, B. F. (2023). Strategy For Islamic Religious Education Teachers in Growing Aqidah Towards Students in Batanghari, Lampung Timur. Jurnal Diskursus Islam, 11(3), 267–284. https://doi.org/10.24252/JDI.V1113.40885
- Bektaş, F., Kılınç, A. Ç., & Gümüş, S. (2022). The effects of distributed leadership on teacher professional learning: mediating roles of teacher trust in principal and teacher motivation. *Educational Studies*, 48(5), 602–624. https://doi.org/10.1080/03055698.2020.1793301
- Damanik, R. (2019). Hubungan Kompetensi Guru Dengan Kinerja Guru. Jurnal Serunai Administrasi Pendidikan, 8(2), 1–8. https://doi.org/10.37755/jsap.v8i2.170
- Darmawan, A. (2019). Pengaruh Gaya Kepemimpinan Kepala Sekolah dan Budaya Sekolah terhadap Kinerja Guru. Jurnal Mandiri: Ilmu Pengetahuan, Seni, Dan Teknologi, 3(2), 244–256. https://doi.org/10.33753/mandiri.v3i2.85
- Dewi, N. N. (2022). Pengaruh Persepsi Guru dan Motivasi Guru Terhadap Kinerja Guru di UPT Pendidikan Kec. Arjasa. *Ekonomi, Keuangan, Investasi Dan Syariah* (*EKUITAS*), 3(3), 596–602. https://doi.org/10.47065/ekuitas.v3i3.1326

- Elazhari, E., Tampubolon, K., Barham, B., & Parinduri, R. Y. (2022). Pengaruh Motivasi dan Gaya Kepemimpinan Kepala Sekolah Terhadap Kinerja Guru di SMP Negeri 2 Tanjung Balai. All Fields of Science Journal Liaison Academia and Sosiety, 1(1), 1–12. https://doi.org/10.58939/afosj-las.v1i1.308
- Even, U., & BenDavid-Hadar, I. (2021). Teachers' perceptions of their school principal's leadership style and improvement in their students' performance in specialized schools for students with conduct disorders. *Management* in *Education*, 089202062110546. https://doi.org/10.1177/08920206211054654
- Ghamrawi, N., & Al-Thani, H. (2023). Wellbeing leadership: Perceptions of pre-service school leaders. *Heliyon*, 9(11), e21706. https://doi.org/10.1016/j.heliyon.2023.e21706
- Hamdan, H., & Afan, M. (2022a). Fungsi Persepsi Guru terhadap Gaya Kepemimpinan Kepala Sekolah dan Motivasi Kerja terhadap Kinerja Guru Bahasa Inggris Sekolah Menengah Atas. Journal Of Administration and Educational Management (ALIGNMENT), 5(2), 330–337. https://doi.org/10.31539/alignment.v5i2.5010
- Hamdan, H., & Afan, M. (2022b). Fungsi Persepsi Guru terhadap Gaya Kepemimpinan Kepala Sekolah dan Motivasi Kerja terhadap Kinerja Guru Bahasa Inggris Sekolah Menengah Atas. Journal Of Administration and Educational Management (ALIGNMENT), 5(2), 330–337. https://doi.org/10.31539/alignment.v5i2.5010
- Handayani, D. (2019). Pengaruh Pendidikan Dan Pelatihan, Motivasi, Serta Lingkungan Kerja Terhadap Kinerja Guru SMK Negeribanyuasin. Jurnal Ilmu Manajemen, 6(2), 140. https://doi.org/10.32502/jimn.v6i2.1583
- Hasanah, N. D., Badrudin, B., & Sanusi, H. P. (2023). Development of Transformative Leadership for Head of State Madrasah Aliyah. *Al-Hayat: Journal of Islamic Education*, 7(2), 626. https://doi.org/10.35723/ajie.v7i2.437
- Kadarsih, I., Marsidin, S., Sabandi, A., & Febriani, E. A. (2020). Peran dan Tugas Kepemimpinan Kepala Sekolah di Sekolah Dasar. EDUKATIF: JURNAL ILMU PENDIDIKAN, 2(2), 194–201. https://doi.org/10.31004/edukatif.v2i2.138
- Kartini, Syarwani Ahmad, S. E. (2020). Pengaruh Gaya Kepemimpinan Kepala Sekolah dan Komunikasi Interpersonal Terhadap Kinerja Guru. *Journal of Education Research*, 1(3), 290– 294. https://doi.org/10.37985/JER.V1I3.34
- Khotijah, S., Rahayu, D. W., Nafiah, N., & Hartatik, S. (2021). Analisis Persepsi Guru dalam Pelaksanaan Pembelajaran Daring Di Sekolah Dasar. *Edukatif: Jurnal Ilmu Pendidikan*, 3(5), 2834–2846. https://doi.org/10.31004/edukatif.v3i5.1003
- Kusvitaningrum, A. B., Sobri, A. Y., & Sunarni, S. (2021). Pengaruh Gaya Kepemimpinan Kepala Sekolah dan Motivasi Kerja terhadap Kinerja Guru di Sekolah Menengah Atas Negeri. Jurnal Pembelajaran, Bimbingan, Dan Pengelolaan Pendidikan, 1(11), 915–926. https://doi.org/10.17977/um065v1i112021p915-926
- Leavy, P. (2022). Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches. Guilford Publications.
- Ma'ruf, R. A., Darmanto, D., Haditia, M., Asroriah, F., Asy'arie, B. F., & Zuhairi, Z. (2024). Islamic Boarding Schools and Technology: Efforts to Overcome Social Changes in Santri Misuse of Gadgets. *AL-ISHLAH: Jurnal Pendidikan*, 16(2), 2472–2484. https://doi.org/10.35445/alishlah.v16i2.5338
- Maheshwari, G. (2022). Influence of Teacher-Perceived Transformational and Transactional School Leadership on Teachers' Job Satisfaction and Performance: A Case of Vietnam. *Leadership and* Policy in Schools, 21(4), 876–890. https://doi.org/10.1080/15700763.2020.1866020
- Marlina, N. (2020). Persepsi Guru Tentang Gaya Kepemimpinan Kepala Sekolah Di Sekolah Menengah Kejuruan (SMK) Negeri Kabupaten Sijunjung. Jurnal Bahana Manajemen Pendidikan, 1(1), 125–461. https://doi.org/10.24036/BMP.V111.2689
- Maruhawa, A., Zein, A., & Budianti, Y. (2022). Collaboration between the Head of Madrasah and the Madrasah Committee to Improve Teacher Performance in the Madrasah Ibtidaiyah

Negeri. Scaffolding: Jurnal Pendidikan Islam Dan Multikulturalisme, 4(1), 218–227. https://doi.org/10.37680/scaffolding.v4i1.1252

- Megiati, Y. E. (2019). Persepsi Guru Atas Supervisi Dan Kepemimpinan Transformasional Kepala Madrasah Terhadap Motivasi Kerja Guru. Simposium Nasional Ilmiah & Call for Paper Unindra (Simponi), 1(1), 187–196. https://doi.org/10.30998/SIMPONI.V111.515
- Muhammad Ridho Fatkhul Huma, MulyaPutra, Mahbub Humaidi Aziz, B. F. A. (2024). Transformative Leadership of School Principals in Improving the Quality of Education from an Islamic Perspective. AL-FAHIM: Jurnal Manajemen Pendidikan Islam, 6(4), 343–268. https://doi.org/https://doi.org/10.54396/alfahim.v6i2.1457
- Nurkhasanah, U., Barnoto, B., Hasan, M. S., & Ashari, A. (2023). Madrasa Principal's Strategy in Improving the Quality of the Pandemic Era Learning Process at Madrasah Aliyah. *Dirasah International Journal of Islamic Studies*, 1(1), 48–56. https://doi.org/10.59373/drs.v1i1.7
- Piwowar-Sulej, K., & Iqbal, Q. (2023). Leadership styles and sustainable performance: A systematic literature review. Journal of Cleaner Production, 382, 134600. https://doi.org/10.1016/j.jclepro.2022.134600
- Prayitno, H. J., Markhamah, Nasucha, Y., Huda, M., Ratih, K., Ubaidullah, Rohmadi, M., Boeriswati,
 E., & Thambu, N. (2022). Prophetic educational values in the Indonesian language textbook:
 pillars of positive politeness and character education. *Heliyon*, 8(8), e10016.
 https://doi.org/10.1016/j.heliyon.2022.e10016
- Prita Indriawati, et al. (2022). Kinerja Guru dalam Mutu Pendidikan di SMAN o2 Balikpapan. Jurnal Penelitian, Pendidikan Dan Pengajaran: JPPP, 3(3), 204–215. https://doi.org/10.30596/jppp.v3i3.12795
- Ramdani, Z., Amrullah, S., & Tae, L. F. (2019). Pentingnya Kolaborasi dalam Menciptakan Sistem Pendidikan yang Berkualitas. *Mediapsi*, 5(1), 40–48. https://doi.org/10.21776/ub.mps.2019.005.01.4
- Rechsteiner, B., Compagnoni, M., Wullschleger, A., Schäfer, L. M., Rickenbacher, A., & Maag Merki,
 K. (2022). Teachers involved in school improvement: Analyzing mediating mechanisms of
 teachers' boundary-crossing activities between leadership perception and teacher
 involvement. *Teaching and Teacher Education*, 116, 103774.
 https://doi.org/10.1016/j.tate.2022.103774
- Rifai, A., Sulastri, S., Nellitawati, N., & Rifma, R. (2022). Persepsi Guru Terhadap Kepemimpinan Transformasional Kepala Sekolah di Sekolah Menengah Pertama Negeri Se-Kenagarian Air Bangis. Journal of Educational Administration and Leadership, 2(4), 366–371. https://doi.org/10.24036/jeal.v2i4.294
- Sabarini, S. S. (2021). Persepsi dan Pengalaman Akademik Dosen Keolahragaan Mengimplementasikan E-Learning pada Masa Pandemi Covid-19. Yogyakarta: Deepublish.
- Sagala, S. (2018). Pendekatan dan Model Kepemimpinan. Jakarta: Prenada Media.
- San-Martín, S., Jiménez, N., Rodríguez-Torrico, P., & Piñeiro-Ibarra, I. (2020). The determinants of teachers' continuance commitment to e-learning in higher education. *Education and Information Technologies*, 25(4), 3205–3225. https://doi.org/10.1007/s10639-020-10117-3
- Sanchez, J. E., Paul, J. M., & Thornton, B. W. (2022). Relationships among teachers' perceptions of principal leadership and teachers' perceptions of school climate in the high school setting. *International Journal of Leadership in Education*, 25(6), 855–875. https://doi.org/10.1080/13603124.2019.1708471
- Sarwar, U., Tariq, R., Aamir, M., & Guan, Y. (2023). Comparative Analysis of Female Leadership Styles in Public and Private Sector Universities: A Study in Pakistan. *Heliyon*, 9(11), e22058. https://doi.org/10.1016/j.heliyon.2023.e22058
- Schmitz, M.-L., Antonietti, C., Consoli, T., Cattaneo, A., Gonon, P., & Petko, D. (2023). Transformational leadership for technology integration in schools: Empowering teachers to use technology in a more demanding way. *Computers & Education*, 204, 104880. https://doi.org/10.1016/j.compedu.2023.104880

Septiani Selly Susanti, Laila Nursafitri, Iri Hamzah, Rita Zunarti, Darmanto, Fitriyah, Bima Fandi Asy'arie, & Muhammad Syihab As'ad. (2024). Innovative Digital Media in Islamic Religious Education Learning. Jurnal Pendidikan Agama Islam, 21(1), 40–59. https://doi.org/10.14421/jpai.v21i1.7553

Silviani, I. (2020). Komunikasi Organisasi. Surabaya: Scopindo Media Pustaka.

- Starlinsky, L., Belawati, T., & Rosita, T. (2022). Korelasi antara Kepemimpinan Kepala Sekolah dan Supervisi Akademik terhadap Kinerja Guru Sekolah Dasar di Kecamatan Lebakgedong Kabupaten Lebak. Indonesian Journal of Educational Counseling, 6(1), 26–33. https://doi.org/10.30653/001.202261.190
- Sugiri, U., & Ma'shum, S. (2022). The leadership of The Head of Madrasah in Improving Quality of Education. Nidhomul Haq: Jurnal Manajemen Pendidikan Islam, 7(2), 295–306. https://doi.org/10.31538/ndh.v7i2.2184
- Sukamto, N. P. & T. (2013). Pengembangan Profesi Guru. Bandung: Remaja Rosdakarya.
- Sulfemi, W. B. (2020). Pengaruh Rasa Percaya Diri Dan Gaya Kepemimpinan Kepala Sekolah Terhadap Kinerja Guru. Nidhomul Haq: Jurnal Manajemen Pendidikan Islam, 5(2), 157–179. https://doi.org/10.31538/ndh.v5i2.557
- Tanjung, R., Hanafiah, H., Arifudin, O., & Mulyadi, D. (2021). Kompetensi Manajerial Kepala Sekolah Dalam Meningkatkan Kinerja Guru Sekolah Dasar. JIIP - Jurnal Ilmiah Ilmu Pendidikan, 4(4), 291–296. https://doi.org/10.54371/jiip.v4i4.272
- Thanh, N. H., & Quang, N. Van. (2022). Transformational, Transactional, Laissez-faire Leadership Styles and Employee Engagement: Evidence From Vietnam's Public Sector. SAGE Open, 12(2), 215824402210946. https://doi.org/10.1177/21582440221094606
- Wahib, A. (2024). Leadership Of Madrasah Heads In Improving The Quality Of Educational Institutions In East Java, Indonesia. International Journal of Educational Research & Social Sciences, 5(3), 379–385. https://doi.org/10.51601/ijersc.v5i3.835
- Walgito, B. (2010). Pengantar Psikologi Umum. Yogyakarta: CV. Andi Offset.
- Yada, T., & Jäppinen, A.-K. (2022). Principals' perceptions about collective competences in shared leadership contexts. *Teaching and Teacher Education: Leadership and Professional Development*, 1, 100012. https://doi.org/10.1016/j.tatelp.2022.100012
- Zaini, M. F., & Syafaruddin, S. (2020). The Leadership Behavior of Madrasah Principals in Improving the Quality of Education in MAN 3 Medan. *Jurnal Iqra': Kajian Ilmu Pendidikan*, 5(2), 95–106. https://doi.org/10.25217/ji.v5i2.649
- Zhang, X., Admiraal, W., & Saab, N. (2021). Teachers' motivation to participate in continuous professional development: relationship with factors at the personal and school level. *Journal of Education for Teaching*, 47(5), 714–731. https://doi.org/10.1080/02607476.2021.1942804