The Influence of Motivation and Work Environment on Teacher Performance at SDN Boneoge, Donggala Regency

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Abstract

The study's results simultaneously show that the independent variable, namely Motivation, justifies the first hypothesis, which states that it has a positive and significant influence on teacher performance at SDN Boneoge, Donggala Regency. This is evident from the results of the f test, obtaining a value f_{hitung} of = 6.730 accepted with a significant level of 5% (0.00 < 0.05) is proven. Work motivation positively affects teacher performance at SDN Boneoge, Donggala Regency. This is not established from the test results. T obtained t_{hi}ngs significant level of 2.303 5% (0.003 < 0.05) and was accepted. This means the higher the teacher's work motivation, the more performance will increase. The work environment positively affects teacher performance at SDN Boneoge, Donggala Regency. This is not proven from the results of the t-test obtained valuet_{hitung} 3.030 at a significant level of 5% (0.005 < 0.05), and H_3 accepted. This means the higher the teacher's work environment, the more performance will increase.

Keywords: Work Motivation; Environment; Performance

PRELIMINARY

Education, in general, is any conscious effort planned to influence other people, be they individuals, groups, or communities, so that they do what is expected of the educational actors. From this limitation, it is implied that the elements of education are: input, process, and output. Input is the target of education (individuals, groups, and society). Revolution in the form of efforts to do what is planned to influence other people. While the output is trying to do what is expected or behavior with the hope that it can be further improved (1).

High work motivation from teachers will encourage these teachers to work as much as possible in carrying out their duties as teachers and have good Motivation if their needs are met (2). However, the field facts obtained by researchers are that there are still too few Banawa 12 SDN teachers who have high Motivation to work, thus making the overall teacher performance not optimal.

A pleasant work environment is critical to motivating teachers to produce peak performance. Still, to create peak performance, namely having high skills and Motivation, the work environment must be conducive. A work environment that guarantees a sense of security, peace, and comfort to produce job satisfaction, and job satisfaction will improve teacher performance (3).

This study aims to determine the effect of Motivation and work environment on teacher performance at SDN Boneoge, Donggala Regency.

METHOD

This research uses quantitative research, which is a type of research that is systematic, planned, and structured from the start.

Data analysis method

Validity test

A validity test is used to measure the validity or validity of a questionnaire. A questionnaire is said to be valid if the questions can reveal something measured by the questionnaire. The validity test aims to determine how far the accuracy is between the actual data on the object and the data reported by the researcher (4).

Reliability Test

Reliability is an index that shows the extent to which a measuring instrument can be trusted or relied upon (consistent). A statistical approach is used to see whether a measuring instrument is reliable, namely through the reliability coefficient. The statement is declared trustworthy if the reliability coefficient is more significant than 0.06

(5).

Classic assumption test

The model must meet the classical regression assumption

s to determine whether the regression model shows a significant and representative relationship. The classical assumption tests are normality, multicollinearity, autocorrelation, and heteroscedasticity (6).

Data Normality Test

The data normality test aims to test whether the confounding or residual variables in the regression model have a normal distribution (7). A good regression model is to have a standard or close-to-normal data distribution.

Multicorrelation Test

Aims to test whether the regression model found a correlation between the independent variables (independent). To find out whether or not there is multicorrelation in the regression model, it is done by analyzing the Tolerance and Variance Influence Factor (VIF) values with the following criteria: 1) If the VIF value is > 10 and Tolerance is <0.1, it can be concluded that in the regression equation, there is a multicollinearity problem. 2) If the VIF value is <10 and the Tolerance is 0.1, it can be concluded that in the regression equation, there is no multicollinearity problem (8).

Autocorrelation Test

The autocorrelation test has a goal in the correlation and regression model of the error in the t -period confounder with the (previous) t1-period perturbation error (9). The t-test is usually used to partially test the independent variables on the dependent variable. This partial test determines whether each independent variable significantly affects the dependent variable. This partial test can be called a hypothesis test. That is, the conclusion in the partial test is still presumptive because it must be proven true.

Heteroscedasticity Test

Aims to test whether in the regression model, there is an inequality of residual variance from one observation to another. Analyzing the problem of heteroscedasticity is done by analyzing the Scatter Plot Graph (10).

Multiple linear regression

The regression analysis technique is used to determine the effect of the independent variable on the dependent variable. The regression equation in this study is as follows (11):

$$Y=b+b1X1+b2X2+e$$

Where:

Y	= Performance
b	= Constant
b1 and b2	= The magnitude of the regression coefficient of each variable
X_1	= work motivation
X_2	= Work Environment
e	= Error

RESULTS

Data analysis method

Validity test

The validity of a test indicates the extent to which an instrument can be used to measure what it is supposed to calculate (12). The validity tester is obtained by correlating the score of each item with the total score, which is the sum of each item's score (corrected item-total correlation). As seen in table 1 as follows:

Table 1. Validity Test Results

No	Variable	Corrected item-total correlation	Information
1	Work motivation		
	X1.1	0.429	Valid
	X1.2	0.730	Valid
	X1.3	0.733	Valid
	X1.4	0.680	Valid
	X1.5	0.539	Valid
	X1.6	0.493	Valid
	X1.7	0.436	Valid
	X1.8	0.629	Valid
	X1.9	0.527	Valid
	X1.10	0.621	Valid

2	Work environment		
	X2.1	0.593	Valid
	X2.2	0.806	Valid
	X2.3	0.576	Valid
	X2.4	0.788	Valid
	X2.5	0.584	Valid
	X2.6	0.727	Valid
	X2.7	0.682	Valid
	X2.8	0.628	Valid
	X2.9	0.592	Valid
	X2.10	0.582	Valid

No	Variable	Corrected item-total correlation	Information
1	Teacher Performance		
	Y1	0.699	Valid
	Y2	0.727	Valid
	Y3	0.758	Valid
	Y4	0.791	Valid
	Y5	0.875	Valid
	Y6	0.843	Valid
	Y7	0.897	Valid
	Y8	0.856	Valid
	Y9	0.740	Valid
	Y10	0.873	Valid

Source: Data Processing Results for 2021

The results of instrument testing for work motivation, work environment, and teacher performance at SDN Boneoge Donggala, with a total of 30 respondents, and 30 valid questionnaire results, are evidenced by the corrected item-total correlation coefficient value greater than or equal to 0.30.

Reliability Test

Reliability test for more than two alternative answers using Cronbach's Alpha test. The value will be compared to the minimum acceptable reliability coefficient value. If the score Cronbach's Alpha > 0.6, the research instrument is reliable. If the Cronbach's Alpha value is <0.6, then the research instrument is unreliable (13).

The results of data reliability testing with 30 employee respondents at SDN Boneoge, Donggala Regency, show that both the independent variable (X) and the dependent variable (Y) produce a Cronbach Alpha coefficient value of 0.60. Testing the reliability of the results more clearly can be seen in Table 2 as follows:

Table 2. Reliability Test Results

Variable	Alpha Cronbach	Keterengan
Work Motivation (X1)	0.777	Valid
Work Environment (X2)	0.848	Valid
Teacher Performance (Y)	0.848	Valid

Source: 2021 Data Processing Results

Classic assumption test
Multicollinearity Multiple Regression Assumption Test

To see whether there is multicollinearity in this study, it can be seen through the results of calculating the variance inflating factor (VIF) value, where if the variance inflating factor value with a tolerance number is close to 1, then the data presented does not occur multicollinearity.

The results of processing the data collected in the field show that the variables analyzed are the value of the inflating factor and the tolerance number, which indicates that multicollinearity does not occur, with the VIF value being 1,000, the cut-off value used to indicate the presence of multicollinearity is:

Tolerance measure variable variability selected independently that is not explained by the variable other independents. So, a low tolerance equals a high VIF value. The assumptions of the Tolerance and Variance Inflation Factor (VIF) can be stated as follows: 1) If VIF > 10 and the Tolerance value < 0.10, multicollinearity occurs. 2) If VIF < 10 and Tolerance value > 0.10, multicollinearity does not occur.

The results of processing the data collected show that the work motivation variable (X1) has a tolerance value of 0.945 and a VIF value of 1.054. In contrast, the work environment variable (X2) has a tolerance value of 0.945 and a VIF value of 1.054.

The results of this study's multicollinearity test indicate no correlation value between the independent variables. Because the matter is > 0.10, multicollinearity does not occur, as shown in table 3 as follows:

Table 3. Multicollinearity Test Results

Independent Variable	Collinearity Statistics	
	Tolerance	VIF
Work Motivation (X1)	0.945	1.058
Work Environment (X2)	0.945	1.058

Source: Primary Data After Processing in 2021

Heteroscedasticity Multiple Regression Assumption Test

This heteroscedasticity assumption test is meant to find out whether the absolute residual variation is the same (homoscedasticity) or not the same (heteroscedasticity) for all observations (14).

To detect a problem, heteroscedasticity can use the chart analysis method. This graphical method is done by looking plot graph between the predicted value of the dependent variable, namely ZPRED, and its residuals SSID. For more details, the research results can be seen in Figure 1 as follows:
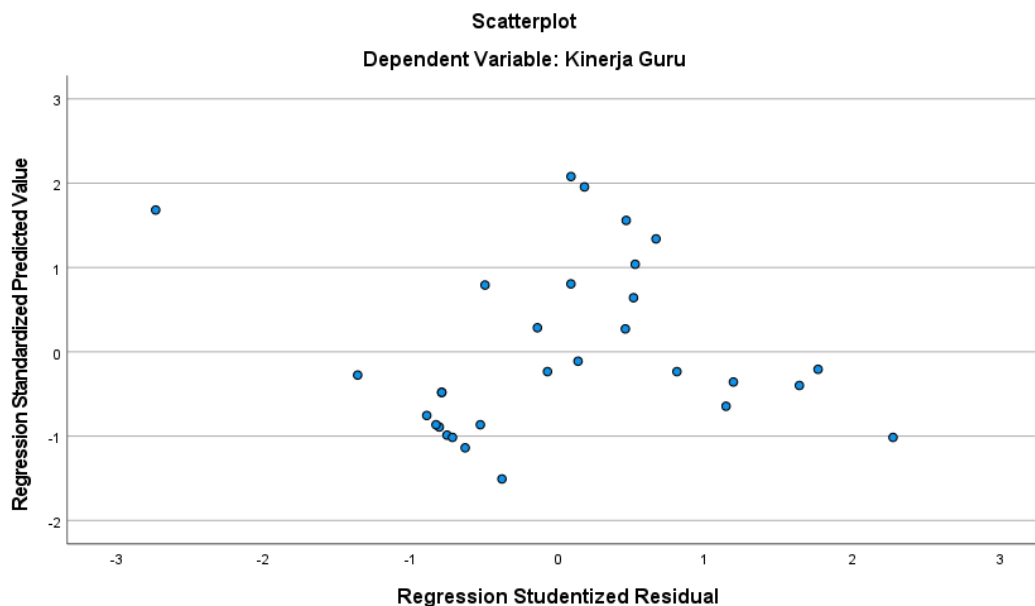
Figure 1. Heteroscedasticity Assumption Test

The results of the graphical analysis in Figure 1 shows that the dots appear to spread randomly, without forming a clear pattern, and are scattered above and below zero on the Y axis so that it can be interpreted that the variables being analyzed do not have heteroscedasticity.

Test of Normality Multiple Regression Assumptions

The normality test tests whether the dependent and independent variables are usually distributed in a regression model (15).

The normality test is intended to test whether the value in the regression model residuals has a normal distribution. There are two ways of predicting whether the residuals have a normal distribution: visual analysis and statistical analysis.
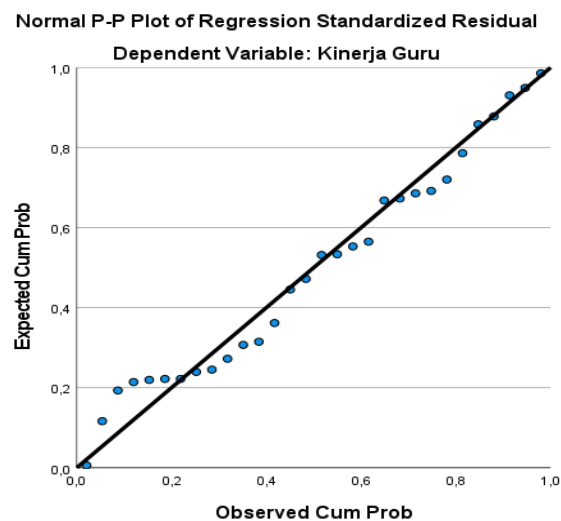
Graph Analysis

This graph analysis is one of the easiest ways to find normality by looking at the histogram that compares the observation data with a distribution close to the normal distribution. The basis for decision-making in this analysis is as follows: 1) If the data spread around the diagonal line and follows the direction of the line, The diagonal or histogram graph shows that the distribution pattern is expected. Hence, the regression model meets the assumption of normality. 2) If the data spreads away from the diagonal line and or does not follow the direction of the diagonal line or the histogram graph, this

does not
indicate that the distribution pattern is typical, then the regression model does not meet the normality assumption.

Non-parametric Statistical Analysis Kolmogrof -Smirnov Test (KS)

Basis of decision making from this analysis does the regression model meet the assumptions of normality as follows: 1) If the value of Sig > alpha, then the residual values are normally distributed. 2) If the Sig value < alpha, the residual value is not normally distributed. For details, it can be seen in Figure 2 as follows:

The results of the graphical analysis in Figure 2 show that the visible points spread around the line and follow the direction of the diagonal line. Thus this regression model is usually distributed.

Autocorrelation Multiple Regression Assumption Test

In the assumption of the regression model, autocorrelation is defined as the occurrence of a correlation between three observations, where other data influence the emergence of one data.

In the autocorrelation test, the Durbin-Watson test is used to determine whether there is autocorrelation in the regression model, and the following is the Durbin-Watson value obtained through the estimation results of the regression model. How to detect whether there is autocorrelation in this study is by using the calculation of the value of the Durbin-Watson (DW) statistic. Durbin Test- Watson is used for first-order autocorrelation and requires its existence intercept (constant) in the regression model, and there is no longer an in-between variable independent variable.

One size in determining whether there is a problem of autocorrelation with the Durbin-Watson test (DW) with conditions as follows: 1) There is a positive autocorrelation if the DW value is below -2 (DW <2); 2) There is no autocorrelation if the DW value is between -2 and +2 or -2 < DW < +2; and 3) There is a negative autocorrelation if the DW value is above +2 or DW>+2".

In this study, it is known that the value of Durbin Watson is 2.200. Thus by the assumptions put forward by Sunyoto, the regression model in this study is free from autocorrelation at the level no autocorrelation occurs.

Analysis of Research Results
Multiple Linear Regression Analysis

In conducting multiple regression analysis, at least it will discuss the correlation coefficient, the coefficient of determination, the regression equation, the regression coefficient, and the partial correlation coefficient for regression involving more than one independent variable.

In the multiple linear regression model equation, the constant values obtained show the positive influence of the independent variables X1 and X2 on the dependent variable, teacher performance (Y). That is, if X1 and X2 increase, the value of Y will also increase.

If the constant value is negative, the Y value will also decrease if the X1 and X2 values decrease. Besides that, if X1 and X2 are equal to zero (0), then the value of the behavior variable after teacher performance (Y) is similar to a constant value of 4.921.

The regression coefficient X1 = 0.3 64 is the magnitude of the contribution of work motivation affecting teacher performance behavior. The regression coefficient of 0.364 shows that work motivation positively correlates with teacher performance.

The regression coefficient X2 = 0.6 16 is the contribution of the work environment to teacher performance behavior. The regression coefficient of 0.616 indicates that the work environment positively correlates with teacher performance.

Verification of the First Hypothesis (Test F)

The analysis of the F test was intended to prove the hypothesis that works Motivation (X1) and work environment (X2) simultaneously affect teacher performance at SDN Boneoge, Donggala Regency.

The F test aims to determine whether the independent variables simultaneously (simultaneously) affect the dependent variable. The F-test was carried out to see the effect of all the independent variables on the dependent variable. The level used is 0.5 or 5%. If the significant value of F <0.05, the independent variable simultaneously affects the dependent variable or vice versa.

The study's results using the regression model analysis (Model Regression) obtained an F-count and F-table of 6.730 > 3.316 with a probability level of 0.004 (significant), with a probability value much more minor than 0.05. This indicates that the variable work motivation (X1) and the work environment (X2) together (simultaneously) have a significant effect on the teacher performance variable (Y) at SDN Boneoge, Donggala Regency, or it can be said that the first hypothesis of this study can be accepted as valid.

Partial Verification of the Hypothesis (t-test)

Answer the hypothesis regarding the effect of each variable is carried out using the t-test. This partial influence test is intended to determine whether there is an influence of one independent variable (X), namely, work motivation (X1) and work environment (X2), on the dependent variable (Y), namely teacher performance.

Decision-making is done by looking at the significant value in the Coefficients table. Usually, the basis for testing the regression results is carried out with a confidence level of

95% or a significance level of 5% (α = 0.05). The criteria of the t-statistical test.

Formation of the second hypothesis; work motivation variable (X1) partially influences teacher performance variable (Y)

T count X1 = 2.303 at an error level of 5% or probability less than the alpha value of 0.003 < 0.05. This indicates that the work motivation variable (X1) partially has a positive and significant effect on the teacher performance variable (Y) at SDN Boneoge, Donggala Regency; **thus,** the second hypothesis is accepted.

Formation of the third hypothesis; work environment variable (X2) partially influences teacher performance variable (Y)

T count X2 = 3.030 at an error level of 5% or a probability more minor than the alpha value of 0.005 < 0.05. This indicates that the work environment variable (X2) partially has a positive and significant effect on the teacher performance variable (Y) at SDN Boneoge, Donggala Regency; **thus,** the third hypothesis is accepted as true.

DISCUSSION

The Simultaneous Effect of Work Motivation Variables and Work Environment Variables on Teacher Performance

The F test is used to determine the significance of the regression model used. The method compares Fount with Ftable with a significance level (a) = 5%. From the data processing results, Fount is 6.730, while Ftable at a significance level of 5% with df (2.04) is 3.316. Because Fount > Ftable (6.730 > 3.316), it means that the regression model on the influence of work motivation and work environment on teacher performance is fit or suitable. This shows that work motivation and work environment together influence teacher performance.

This study shows that work motivation and environment have a simultaneous and significant effect on teacher performance at SDN Boneoge, Donggala Regency, with an R contribution of 0.577 or 57.7% or at a moderate level of relationship with a coefficient interval of 0.40 – 0.599. Sugiyono (2004: 82), meaning that the performance of teachers in this organization has a good relationship (influence) on the ability to communicate vertically and horizontally towards leaders and their subordinates.

Leaders always pay attention to each of their employees. Leaders also give awards to employees who work well, employees who can lead or organize work groups in a job, employees who consistently work with full responsibility for the tasks and jobs given, and employees who follow the work method has been determined by the company where he works by showing good performance.

The Effect of Work Motivation on Teacher Performance.

The results of testing the second hypothesis with the t-test obtained a value of count = 2.303, accepted at a significance level of 5% (0.003 < 0.05). This means that work motivation has a positive and significant effect on teacher performance. The higher the teacher's work motivation, the teacher's routine will increase. Conversely, the lower the teacher's work motivation, the lower the teacher's performance.

Teacher performance will increase if the leadership of SDN Boneoge Donggala Regency provides incentives in the form of prizes for those who excel. With this positive work motivation, the morale of his subordinates will increase because the behavior or actions of each individual will be better too. Therefore every manager who wants to

motivate his associates needs to understand the hierarchy of human needs.

The Influence of the Work Environment on Teacher Performance

The results of testing the second hypothesis with the t-test obtained a value of count = 3.030, accepted at a significance level of 5% (0.005 < 0.05). This means that the work environment has a positive and significant effect on teacher performance. The higher the teacher's work environment, the teacher's routine will increase. Vice versa, if the teacher's work environment decreases, the teacher's performance will also decrease.

The work environment can be improved by providing good direction or attention to employees to keep enthusiasm. A positive work environment will give good work enthusiasm to employees to carry out their duties and work with full responsibility.

CONCLUSION

This study concludes that simultaneously the F test is used to determine the significance of the regression model used. The method compares Fount with Ftable with a significance level (a) = 5%. From the data processing results, Fount is 6.730, while Ftable at a significance level of 5% with df (2.04) is 3.316. Because Fount > Ftable (6.730 > 3.316), it means that the regression model on the influence of work motivation and work environment on teacher performance is fit or suitable. This shows that work motivation and work environment together influence teacher performance. It turns out that the variables of work motivation and work environment have a simultaneous and significant influence on teacher performance at SDN Boneoge, Donggala Regency, with an R contribution of 0.577 or 57.7% or at a moderate level of relationship with a coefficient interval of 0.40 – 0.599.

Work motivation positively affects teacher performance at SDN Boneoge, Donggala Regency. The results of testing the second hypothesis with the t-test obtained a value t_{count} = 2.303 accepted at a significance level of 5% (0.003 < 0.05). The higher the teacher's work motivation, the teacher's performance will increase. Conversely, the lower the teacher's work motivation, the lower the teacher's performance.

The work environment has a positive and significant effect on teacher performance. The results of testing the second hypothesis with the t-test obtained a value of count = 3.030, accepted at a significance level of 5% (0.005 < 0.05). The higher the teacher's work environment, the teacher's performance will increase. Vice versa, if the teacher's work environment decreases, the teacher's performance will also decrease.

SUGGESTION

The research results should be used as material for making policies in teacher management, especially for teachers at SDN Boneoge, Donggala Regency. It is better to start applying work motivation and the right work environment.

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