

## THE RELATIONSHIP OF TRANSFORMATIONAL AND LEARNING ORGANIZATION WITH TEACHER CREATIVITY

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### Abstract

This research aimed to analyze the relationship between transformational leadership and learning organization to teacher creativity. The research approach used is quantitative with a correlational type. The population of this research is all civil servant teachers at state elementary schools in Cijeruk District Bogor, totaling 155 teachers. Sampling used a proportional random sampling technique with a total sample of 112 teachers. This research uses quantitative data and data sources consisting of primary data (respondents) and secondary data (books, relevant journals, and so on). Data collection techniques using a questionnaire. There are three questionnaire data: transformational leadership, learning organization, and teacher creativity. Data analysis techniques are normality, homogeneity, and linearity tests. The research results obtained the following conclusions: (1) There is a positive relationship between transformational leadership and teacher creativity with a correlation coefficient  $r_{y.1}=0.368$  and the functional relationship equation  $\hat{Y}=6.716 + 0.861X_1$ . Transformational leadership contributes 13.5% to teacher creativity. (2) There is a positive relationship between learning organization and teacher creativity with correlation coefficient  $r_{y.2}=0.796$  and functional relationship equation  $\hat{Y}=-15.225 + 0.978X_2$ . Learning organizations contribute 63.3% of teacher creativity. (3) There is a positive relationship between transformational and learning organization together with teacher creativity with a correlation coefficient  $R=0.808$  and functional relationship equation  $\hat{Y}=-58.672 + 0.340X_1 + 0.925X_2$ . The contribution of transformational leadership and learning organization together with teacher creativity means that the better transformational leadership and learning organization, the better teacher creativity will be.

### Keywords

learning organization; teacher creativity; transformational leadership



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## INTRODUCTION

The era of the industrial revolution 4.0 has impacted the world of education (Heriyanto et al., 2019). In this case, using digital technology in the learning process, completing various assignments, and increasing teacher competence cannot be separated from developments in technology and information. Teachers at the forefront of the world of education are required to be ready to change and adapt to face these challenges (Schleicher, 2012). The position of the teacher cannot be replaced by any sophisticated machine because the teacher is needed to shape the personality of the nation's children with character, tolerance, and good values (Sugiyanto, Ahyani, & Kesumawati, 2019). Teachers are also able to cultivate social empathy, build imagination and creativity, and strengthen the spirit of national unity and integrity. Therefore, the teacher is essential in education.

Education is one of the basic capital in creating superior human resources (Ningsih et al., 2022). School as a system has interrelated components that contribute to achieving a vision or goal. These components are students, curriculum, teaching materials, teachers, principals, education staff, infrastructure, learning processes, and learning outcomes. Creating superior human resources must go through quality education. Quality teachers also support quality education because teachers are at the forefront of the learning process in creating quality students (Muhaemin & Umar, 2022).

Teacher creativity is something necessary, especially in learning activities (Saleh et al., 2021). Learning activities delivered communicatively and using visual aids will make learning more attractive (Melanda, Surahman, & Yulianti, 2023; Rahmi, Budiman, & Widyaningrum, 2019). Materials that are designed according to the current era and in accordance with the characteristics of students will make students' interest in understanding the material more developed. Classroom management with a changing layout makes students feel unsaturated and has a high motivation to always be present in class. The teacher's creative ideas outlined in learning become an attraction for students, resulting in student learning outcomes that are expected by schools and producing quality graduates (Nuha & Fathoni, 2022; Umar, 2020).

Creativity is characterized by something that is created in an interesting and new way that has not been done by someone or the desire to create something. In teaching and learning activities, creative teachers will try to use interesting learning media, such as interactive presentation slides, learning games, and fun methods, so that student participation in learning increases (Nuha & Fathoni, 2022). Creative teachers show a high commitment to the optimality of learning activities,

indicated by their readiness and mastery of suitable material and the breadth of references to teaching materials so that they can enrich interactions with students (Umar, 2020; Warti, 2018). This makes teacher creativity a crucial factor that supports achieving educational goals to produce quality graduates. Teachers with good creativity will make the learning process fun so that students will be interested and focused on the lesson (Oktiani, 2017; Septikasari & Frasandy, 2018).

The importance of teacher creativity is also supported by some recent research results. Research conducted by Oktavia (2014) stated that teacher creativity in learning at SDS 027 Tanjung Simpang Mutiara Gambut Foundation is still relatively low due to the lack of use of media in the learning process due to low socialization of techniques for making & using learning media, and the difficulty of selling media in schools. Then, Burhanudin, Retnowati, & Laihad (2022) concluded that there was a very significant positive relationship between the transformational leadership of school principals and teacher work creativity as shown by the regression equation  $\hat{Y}=71.347 + 0.4328X_1$ . It can be said that each increase in one unit of the  $X_1$  variable (principal transformational leadership) will increase the teacher's work creativity ( $Y$ ) by 0.4328 units at a constant value of 71.347. Furthermore, Suharlan (2019) concluded that there was a direct positive influence of the principal's transformational leadership on the creativity of SMKN 1 Ketahun teachers, with a path coefficient value of 0.377 and  $t_{count} = 2.729$  greater than  $t_{table} = 2.021$ .

Phenomena in the field, teacher creativity is still not as expected and needs improvement to be optimal. The results of a preliminary survey of 30 civil servant teacher respondents at state elementary schools in Cijeruk District, Bogor. Facts based on survey search results using a questionnaire, information was obtained that: (1) There were 36% of teachers had problems with fluency (fluency of action). This could be seen in many teachers who rarely came up with new ideas and provided ways or suggestions for doing various things. (2) There were 32% of teachers had problems with flexibility (dexterity of action). This could be seen from the number of teachers who rarely solved problems or assignments with various alternatives and did not see a problem from a different perspective. (3) There were 38% of teachers had problems with originality (originality in their work). This could be seen from the number of teachers who rarely came up with new and unique expressions or thought of unusual ways to express themselves. (4) There were 33% of teachers who had problems in elaboration. This could be seen from the number of teachers who rarely reached and developed an idea or product and added or detailed details of an object, idea, or situation so that it became more interesting. (5) There were 32% of teachers had problems in

redefining (formulation). This could be seen from the number of teachers who rarely formulated problems from different perspectives. (6) There were 32% of teachers had problems finding new opportunities. This could be seen from the number of teachers who were still looking for new opportunities.

The survey results are supported by observations at Cijeruk Elementary School, and it is known that some teachers have a low level of creativity in the teaching and learning process. This is indicated by the use of lecture learning methods and creativity, which needs to be increased in the use of learning media. Therefore this situation causes some students to be less enthusiastic in participating in learning so that learning becomes less optimal. Several factors, including caused by (1) Lack of support and facilities from school management. Teachers who do not get adequate support and facilities to develop creativity feel limited in coming up with new ideas or applying innovative learning approaches. (3) School management does not provide incentives or recognition for teachers' creative efforts; this reduces the teacher's motivation to shoot. Awards or awards for creativity produced can be an incentive for teachers to continue to develop their creative ideas. (3) Many teachers do not receive relevant professional training and development, so they do not have sufficient skills or knowledge to integrate creative elements into learning.

This finding indicates that the creativity of civil servant teachers at state elementary schools in Cijeruk District is not optimal. Therefore, it is necessary to increase teacher creativity so that the educational goals of producing quality graduates can be achieved. Indicators of teacher creativity used in this research include (1) Fluency in action, namely generating lots of ideas and being ready to accept changes and failures. (2) Produce originality or originality in rich. (3) Flexibility, namely using various possible approaches and easily adapting to possible changes. (4) Elaboration in describing something in detail. (5) Redefinition in reviewing an issue from a different perspective than many people already know. (6) Look for new opportunities to solve problems. The survey results that have been carried out must be re-analyzed so that it can be known what factors are related to teacher creativity.

## **METHOD**

The research approach used is quantitative with a correlational type. This research was conducted at 38 state elementary schools in Cijeruk District, Bogor. The population of this research is all civil servant teachers at state elementary schools in Cijeruk District, Bogor, totaling 155

teachers. Sampling used a proportional random sampling technique with a total sample of 112 teachers.

This research uses quantitative data and data sources consisting of primary data (respondents) and secondary data (books, relevant journals, and so on). Data collection techniques using a questionnaire. There are three questionnaire data: transformational leadership, learning organization, and teacher creativity. In this research, there are two independent variables and one dependent variable. The independent variable is transformational leadership (X1), learning organization (X2), while the dependent variable is teacher creativity (Y).

Data analysis techniques are normality test, homogeneity test, and linearity test. Based on the hypothesis testing technique, the following statistical hypotheses can be proposed (1) The relationship between Transformational Leadership and Teacher Creativity:  $H_0: \rho_{y1} \leq 0$  (there is no positive relationship between Transformational Leadership and Teacher Creativity) and  $H_1: \rho_{y1} > 0$  (there is a positive relationship between Transformational Leadership and Teacher Creativity). Relationship between Learning Organization and Teacher Creativity:  $H_0: \rho_{y2} \leq 0$  (no positive relationship between Learning Organization and Teacher Creativity) and  $H_1: \rho_{y2} > 0$  (there is a positive relationship between Learning Organization and Teacher Creativity). (3) Relationship between Transformational Leadership and Learning Organization and Teacher Creativity:  $H_0: \rho_{y12} \leq 0$  (no positive relationship between Transformational Leadership and Learning Organization and Teacher Creativity) and  $H_1: \rho_{y12} > 0$ . There is a positive relationship between Transformational Leadership Learning Organization and Teacher Creativity.

## **FINDINGS AND DISCUSSION**

### **Findings**

Before conducting an analysis to test research expertise using simple linear regression and correlation techniques, testing analysis requirements includes, testing Analysis requirements tests consist of normality tests, homogeneity tests, and linearity tests as requirements in using simple regression and correlation analysis.

### **Normality Test Standard Error Estimation of Teacher Creativity Variables on Transformational Leadership Variables**

Based on the results of data analysis for the standard error normality test, the assessment of teacher creativity variables on transformational leadership variables with the One-Sample Kolmogorov

Smirnov Test method obtained the following results:

**Table 1.** Results of the Normality Test of Teacher Creativity Variables on Transformational Leadership Variables

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		112
Normal Parameters a,b	Mean	0.0000000
	Std. Deviation	13.61297505
Most Extreme Differences	Absolute	0.106
	Positive	0.106
	Negative	-0.054
Kolmogorov-Smirnov Z		1.123
Asymp. Sig. (2-tailed)		0.160
a. Test distribution is Normal.		
b. Calculated from data.		

Source: source description

Based on the results of the normality test of the value of Asymp.Sig. (2-tailed) > 0.05 or 0.160 is expressed as greater than the value of  $\alpha=0.05$ , so  $H_0$  is rejected, and  $H_a$  is accepted, meaning the data is normally distributed. This means that the standard estimation error between teacher creativity over transformational leadership variability is normally distributed.

### Standard Error Normality Test Estimation of Teacher Creativity Variables on Variability Learning Organization

Based on the results of data analysis for the standard error normality test, the assessment of teacher creativity variables on learning organization variables with the One-Sample Kolmogorov Smirnov Test method obtained the following results:

**Table 2.** Results of the Normality Test of Teacher Creativity Variables on Variable Learning Organization

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		112
Normal Parameters a,b	Mean	0.0000000
	Std. Deviation	8.86531723
Most Extreme Differences	Absolute	0.112
	Positive	0.056
	Negative	-0.112
Kolmogorov-Smirnov Z		1.123
Asymp. Sig. (2-tailed)		0.160
a. Test distribution is Normal.		
b. Calculated from data.		

Source: source description

Based on the results of the normality test of the value of Asymp.Sig. (2-tailed) > 0.05 or 0.118 is expressed as greater than the value of  $\alpha = 0.05$ ,  $H_0$  is rejected, and  $H_a$  is accepted, meaning the data is normally distributed. This means that the standard estimation error between teacher creativity and variable learning organization is normally distributed. The default error normality test estimate above can be summarized in Table 3 below.

**Table 3.** Summary of Default Error Normality Test Results

Raw Error Estimation	Asymp. Sig. (2-tailed)	Conclusion
$Y - \hat{Y}_1$	0,160	Normal Distributed
$Y - \hat{Y}_2$	0,118	Normal Distributed
Normal Condition: probability (Asymp. Sig.) $\geq \alpha = 0.05$		

Source: source description

### Group Homogeneity Test of Teacher Creativity Variable Variance on Transformational Leadership Variables

The results of SPSS calculations on the transformational leadership variable homogeneity test on teacher creativity can be seen in Table 4 below.

**Table 4.** Homogeneity Test Results of Transformational Leadership Variables

on Teacher Creativity		
Test Results <sup>a</sup>		
Box's M		57.908
F	Approx.	1.964
	df1	25
	df2	505.952
	Sig.	.204

The SPSS output shows a significance value of 0.204. This value is greater than the value of  $\alpha = 0.05$ , which means that the variance of the data value of the teacher's creativity variable on the transformational leadership variable comes from a homogeneous population.

### Homogeneity Test of Group Variance of Teacher Creativity Variable on Learning Organization Variable

The results of SPSS calculations on the homogeneity test of the learning organization variable on teacher creativity can be seen in Table 5.

**Table 5.** Results of Learning Organization Variable Homogeneity Test on Teacher Creativity

Test Results <sup>a</sup>		
Box's M		21.831
F	Approx.	0.732
	df1	24
	df2	505.726
	Sig.	0.821

The SPSS output shows a significance value of 0.821. This value is greater than the value of  $\alpha = 0.05$ , which means that the variance of the data value of the teacher's creativity variable on the transformational leadership variable comes from a homogeneous population.

The homogeneity test above can be summarized in Table 6.

**Table 6.** Summary of Homogeneity Test Results

Homogeneity Test	Sig. (2-tailed)	Conclusion
Transformational Leadership on Teacher Creativity	0,204	Homogeneous
Learning Organization on Teacher Creativity	0,821	Homogeneous
Homogeneous Terms: Sig. $\geq \alpha = 0,05$		

Several requirements for hypothesis testing, such as the normality test and homogeneity test, have met the requirements for normal, homogeneous, and linear distribution. Calculation of the test results of the three hypotheses that have been proposed can be explained as follows:

**The Relationship Between Transformational Leadership and Teacher Creativity**

**Table 7.** ANOVA<sup>b</sup> Transformational Leadership with Teacher Creativity

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	3215.524	1	3215.524	17.196	.000 <sup>b</sup>
Residual	20569.753	110	186.998		
Total	23785.277	111			

a. Dependent Variable: Y  
 b. Predictors: (Constant), X1

Based on the results of the calculation of the significance test in Table 7, it shows a probability value (sig) of 0.000. This value is lower than the level of  $\alpha = 0.05$ , so  $H_0$  is rejected, and  $H_a$  is accepted, meaning it is significant or there is a significance between transformational leadership and teacher creativity (Amtu, Siahaya, & Taliak, 2019). Thus the regression equation  $\hat{Y} = 6.716 + 0.861X_1$  is significant. Then the equation  $\hat{Y} = 6.716 + 0.861X_1$  can be used to explain, predict, and draw conclusions about the relationship between transformational leadership variables and teacher creativity.

**Table 8.** Linearity Test of Transformational Leadership Variables with Teacher Creativity

			Sum of Squares	df	Mean Square	F	Sig.
Y *	Between	(Combined)	8387.105	20	419.355	2.478	.002
X1	Groups	Linearity	3215.524	1	3215.524	19.003	.000
		Deviation from Linearity	5171.581	19	272.188	1.909	.031
	Within Groups		15398.172	91	169.211		
	Total		23785.277	111			

From the results of the calculation of the linearity test in Table 8, it is obtained that the sig value of deviation to linearity is 0.031, which is greater than (0.05 or 0.01). So the deviation from the linear state is not significant, meaning that the regression between the two variables (transformational leadership and teacher creativity) is linear, so  $H_0$  is rejected, and  $H_a$  is accepted, meaning it is significant or there is a significance between transformational leadership and teacher creativity (Rais, Rubini, Herfina, 2022).

**Table 9.** Model Summary of Transformational Leadership with Teacher Creativity

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.368 <sup>a</sup>	0.135	0.127	13.675	0.135	17.196	1	110	0.000

a. Predictors: (Constant), X1  
b. Dependent Variable: Y

The coefficient of determination ( $R_{y1}$ ) indicates the magnitude of the contribution of the transformational leadership variable, which can affect the teacher's creativity variable. From the SPSS output results in Table 10, a  $R_{y1}$  value of 0.135 is obtained, which means that transformational leadership contributes 13.5% to the increase in the teacher's creativity variable. At the same time, 86.5% contributed to other factors not examined in this research. A simple correlation significance test can refer to Table 10 above. The probability value (Sig. F Change) is 0.000. This value is less than  $\alpha$  (0.05), indicating that the correlation is very significant.

**Relationship between Learning Organization and Teacher Creativity**

**Table 10.** ANOVA<sup>b</sup> Learning Organization with Teacher Creativity

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15061.359	1	15061.359	189.909	.000 <sup>b</sup>
	Residual	8723.917	110	79.308		
	Total	23785.277	111			

a. Dependent Variable: Y  
 b. Predictors: (Constant), X2

Based on the results of the calculation of the significance test in Table 10, it shows a probability value (sig) of 0.000. This value is lower than the level of  $\alpha = 0.05$ . So  $H_0$  is rejected, and  $H_a$  is accepted, meaning it is significant or there is a significance between transformational leadership and teacher creativity (Amtu, Siahaya, & Taliak, 2019). Thus the regression equation  $\hat{Y} = -15.225 + 0.978X_2$  is significant. Thus the equation  $\hat{Y} = -15.225 + 0.978X_2$  can be used to explain, predict and draw conclusions about the relationship between learning organization variables and teacher creativity.

**Table 11.** Linearity Test of Learning Organization Variables with Teacher Creativity

			Sum of Squares	df	Mean Square	F	Sig.
Y *	Between (Combined)		19781.586	33	599.442	11.678	.000
X2	Groups	Linearity	15061.359	1	15061.359	293.426	.000
		Deviation from Linearity	4720.227	32	147.507	2.874	.045
	Within Groups		4003.690	78	51.329		
	Total		23785.277	111			

From the results of the calculation of the linearity test in Table 11, it is obtained that the sig value of deviation to linearity is 0.045, which is greater than (0.05 or 0.01). So the deviation from the linear state is not significant, meaning that the regression between the two variables (transformational leadership and teacher creativity) is linear, so  $H_0$  is rejected, and  $H_a$  is accepted, meaning it is significant or there is a significance between transformational leadership and teacher creativity (Rais, Rubini, Herfina, 2022).

**Table 12.** Learning Organization Summary Model with Teacher Creativity

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.796 <sup>a</sup>	.633	.630	8.906	.633	189.909	1	110	.000

a. Predictors: (Constant), X2  
b. Dependent Variable: Y

The coefficient of determination ( $R^2$ ) indicates the magnitude of the contribution of the learning organization variable, which can affect the teacher's creativity variable. From the SPSS output results in Table 12, a  $R^2$  value of 0.633 is obtained, which means that the learning organization contributes 63.3% to the increase in the teacher's creativity variable. At the same time, 32.7% contributed to other factors not examined in this research. The simple correlation significance test can refer to Table 12 above. The probability value (Sig. F Change) is 0.000. This value is less than  $\alpha$  (0.05), indicating that the correlation is very significant.

### The Relationship between Transformational Leadership and Learning Organization and Teacher Creativity

**Table 13.** ANOVA<sup>b</sup> Transformational Leadership and Learning Organization with Teacher Creativity

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15518.340	2	7759.170	102.305	.000 <sup>b</sup>
	Residual	8266.937	109	75.843		
	Total	23785.277	111			

a. Dependent Variable: Y  
b. Predictors: (Constant), X2, X1

Based on the results of the calculation of the significance test in Table 13, it shows a probability value (sig) of 0.000. This value is lower than the level of  $\alpha = 0.05$ , so  $H_0$  is rejected, and  $H_a$  is accepted, meaning it is significant or there is a significance between transformational leadership and teacher creativity (Amtu, Siahaya, & Taliak, 2019). Thus the regression equation  $\hat{Y} = -58.672 + 0.340X_1 + 0.925X_2$  is significant. That means that this regression equation can be used to explain, predict and draw conclusions about the relationship between the variables of transformational leadership and learning organization together with teacher creativity.

**Table 14.** Model Summary of Transformational Leadership and Learning Organization with Teacher Creativity

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.808 <sup>a</sup>	.652	.646	8.709	.652	102.305	2	109	.000

a. Predictors: (Constant), X2, X1  
b. Dependent Variable: Y

The value of the coefficient of determination ( $R^2$ ) shows the magnitude of the contribution of transformational leadership and learning organization variables that can affect the teacher's creativity variable. From the SPSS output results in Table 13 above, a  $R^2$  value of 0.652 is obtained, which means that transformation and learning organization contribute 65.2% to the increase in the teacher's creativity variable. Meanwhile, 34.8% was contributed by other factors not examined in this research. A simple correlation significance test can refer to Table 14 above. The probability value (Sig. F Change) is 0.000. This value is less than  $\alpha$  (0.05), indicating that the correlation is very significant.

## Discussion

### The Relationship Between Transformational Leadership (X1) and Teacher Creativity (Y)

Based on the calculation results of linear regression analysis and simple correlation analysis, a relationship between transformational leadership (X1) and teacher creativity (Y) can be shown by the regression equation  $\hat{Y} = 6.716 + 0.861X_1$ . This equation means that the value of the dependent variable of teacher creativity (Y) is influenced by the independent variable, namely transformational leadership (X1). With a correlation coefficient value of 0.368, it can be stated that the strength of the relationship between transformational leadership and teacher creativity is relatively weak. Furthermore, resulting in a coefficient of determination of 0.135 which means showing a significant level of relationship and the contribution given by the transformational leadership variable is 13.5% to teacher creativity, and it can be predicted that each increase in transformational leadership score will cause an increase of 0.861 increasing one's creativity level by a constant of 6.716. The results of this research conclude that the transformational leadership possessed will make a positive contribution that has a real effect on teacher creativity.

Transformational leadership is the behavior of leaders who make changes by inspiring and motivating their followers to prioritize the organization's interests in realizing the achievement of the organization's vision (Kuswaeri, 2016). Meanwhile, creativity is an individual activity in creating or producing something different, both in the form of ideas and real works, both in new works and in combination with existing things, all of which are relatively different from those that have existed before (Runco & Jaeger, 2012). The emergence of teacher creativity must be assisted by the existence of transformational leadership, direction, coaching, inspiration, and motivation carried out by the principal so that the teacher can develop an idea and idea; every individual who gets good direction, coaching, inspiration, and motivation, from his leader while working then the teacher will be able to develop thoughts and ideas new to create good creativity.

Based on the results of research conducted theoretically and supported by relevant research, research conducted by Mansur et al. (2018) with the title: Transformational Leadership and Individual Creativity: The Mediating Role of Structural Empowerment The results showed that transformational leadership is positively related to individual creativity. Results showed that TL explained 26% of the variance in individual creativity  $R^2=.26$ . The results also showed that TL made a positive and significant contribution to individual creativity ( $\beta = 0.51, p < .01$ ).

In another relevant research conducted by Handi, Surya, & Ketut (2020), the results of the parameter coefficient test between transformational leadership and employee creativity showed a positive relationship with a beta coefficient value of 0.392 with a p-value of  $< 0.05$ ;  $H_0$  was thus rejected and the hypothesis accepted. So  $H_1$  is accepted. Then, Burhanudin, Retnowati, & Laihad (2022) concluded that there was a very significant positive relationship between the transformational leadership of school principals and teacher work creativity as shown by the regression equation  $\hat{Y} = 71.347 + 0.4328X_1$ . It can be said that each increase in one unit of the  $X_1$  variable (principal transformational leadership) will increase the teacher's work creativity ( $Y$ ) by 0.4328 units at a constant value of 71.347. Furthermore, Suharlan (2019) concluded that there was a direct positive influence of the principal's transformational leadership on the creativity of SMKN 1 Ketahun teachers, with a path coefficient value of 0.377 and  $t_{count} = 2.729$  greater than  $t_{table} = 2.021$ .

Based on the results above, it can be concluded that there is a positive relationship between transformational leadership and teacher creativity.

### **The Relationship Between Learning Organization (X1) and Teacher Creativity (Y)**

Based on the results of the research, the relationship between learning organization (X2) and teacher creativity (Y) can be shown by the regression equation  $\hat{Y} = -15.225 + 0.978X_2$ . This equation means that the value of the dependent variable of teacher creativity (Y) is influenced by the independent variable, namely learning organization (X2). The correlation coefficient of learning organization with teacher creativity is 0.796, so it can be stated that the strength of the relationship between learning organization and real teacher creativity is strong. And the resulting coefficient of determination of 0.633 shows a significant level of relationship and contribution made by the learning organization variable is 63.3% with teacher creativity. Therefore, it can be predicted that every increase in learning organization scores will cause an increase of 0.978, increasing creativity with a constant of -15.225. Then the results of this research can be concluded that learning organizations can make a positive contribution that has a direct relationship to teacher creativity.

Learning Organization (LO) is an organization whose members have a commitment to continuous learning, continuously changing into an organization that manages, uses, and transfers knowledge to change the behavior of its members so that it is able to adapt, produce optimal performance, through the existing learning climate, so that it can increase teacher creativity in learning, and can make it easier for teachers to develop ideas in terms of developing creative learning for students.

Based on the results of the research that has been carried out above theoretically and supported by relevant research, in this case, Miri et al. (2019) obtaining the results of the correlation coefficient value shows that the learning organization variable (X1) with teacher creativity (Y) produces a correlation coefficient value ( $r_{y1}$ ) of 0.575. This  $r_{y1}$  value is greater than 0, so it is concluded that there is a positive relationship between learning organization and teacher creativity.

Based on the results above, it can be concluded that there is a positive relationship between learning organization and teacher creativity.

### **The Relationship Between Transformational Leadership (X1) and Learning Organization (X2) Together with Teacher Creativity (Y)**

Based on the results of the research, transformational leadership variables (X1) and learning organization (X2) together have a relationship with teacher creativity (Y). This can be known through multiple regression analysis. Based on the results of data analysis, the regression equation  $\hat{Y} = -58.672 + 0.340X_1 + 0.925X_2$  This equation gives the meaning of the value of the dependent

variable teacher creativity (Y) influenced by transformational leadership variables (X1) and learning organization (X2).

The value of the double correlation coefficient between proportional leadership and learning organization with teacher creativity is 0.808, so it can be stated that the strength of the relationship between transformational leadership and learning organization together with real teacher creativity is very strong. This relationship is said to be very strong. If transformational leadership and learning organization together increase, then teacher creativity also increases. While the coefficient of determination is 0.652, indicating a significant level of relationship. The contribution given by transformational leadership variables and learning organization, together with teacher creativity, is 65.2%.

Transformational leadership is the behavior of leaders who make changes by inspiring and motivating their followers to prioritize the interests of the organization in realizing the achievement of the organization's vision. The indicators of transformational leadership (Andrianary & Antoine, 2019) include: 1) Charisma (Idealized Influence) Leaders who take actions to have an ideal influence, are trusted, recognized, and become an example for their subordinates so as to foster respect and trust from their subordinates. 2) Inspirational Motivation leaders exhibit behavior that inspires and uplifts and leaders who view threats or problems as opportunities for learning and achievement. 3) Intellectual Stimulation Leaders who stimulate their members or subordinates to be more creative by providing stimulation constructively and innovatively. 4) Individualized Consideration Transformational leaders facilitate the needs of their members in developing themselves through Training and mentoring to reach their potential.

Learning Organization (LO) is an organization whose members commit to continuous learning, continuously changing into an organization that manages, uses, transfers knowledge, and changes the behavior of its members to be able to adapt and produce optimal performance through a learning climate, which has been planned. Learning Organization (LO) can be measured through five indicators (Apriliansyah, 2022), namely: 1) personal mastery is an organization whose members commit to continuous learning, continuously changing into an organization that manages, uses, transfers knowledge, changes the behavior of its members, to be able to adapt, produce optimal performance, through a learning climate, which has been planned. Personal in creating work results that are sought or desired and are an organizational environment that encourages all personnel to develop self-competence continuously by learning so that they can go towards the chosen goals and

objectives. 2) Mental models are the creation of maps or framework models for making decisions through approaching the problems they face and improving our self-image of the outside world. 3) Shared vision is a shared vision; it is very important and can make the organization build a high commitment to achieving a vision so that the organization will be easy to develop and become large. 4) Team learning is learning and working together in a continuous team, sharing knowledge and teaching each other various ways and working together in one unit. 5) System thinking is a large set of methods, tools, principles, and frameworks to help us understand patterns in small parts and sort through those parts effectively.

Creativity is an individual activity in creating or producing something different, both in the form of ideas and real works, both in new works and in combination with existing things, all of which are relatively different from those that have existed before. The indicators, namely: 1) Fluency of action, which is to produce many ideas and be ready to accept changes and failures; 2) Produce originality or authenticity in rich. 3) Flexibility (flexibility of action), using a variety of possible approaches and easily adapting to possible changes. 4) Elaboration or elaboration in describing something in detail. 5) Redefinition or formulation in reviewing a problem based on a perspective different from what is already known by many people. 6) Look for new problem-solving opportunities (Ali & Ansori, 2011; Supriadi, 2010).

In an educational institution, teachers who have a good level of creativity will always strive to find and develop new ideas and ideas, and this is supported by the encouragement of a teacher, an organization whose members have a commitment to continuous learning, working together, and sharing knowledge to be able to develop the potential that aims to achieve goals in the form of better learning in terms of Quality.

On the other hand, a teacher also needs direction, guidance, supervision, inspiration, and motivation carried out by a leader, in this case, the principal, in order to encourage the implementation of the process of learning activities in accordance with the expected learning objectives.

The calculation result is obtained  $F_{\text{calculate}} > F_{\text{tabel}}$  or 102.30 greater than 3.08, then  $H_0$  is rejected, and  $H_a$  is accepted. This means that there is a positive and significant relationship between transformational leadership and learning organization together in increasing teacher creativity. From the test data above, it shows that the research hypothesis of the variables of transformational leadership (X1), learning organization (X2), and teacher creativity (Y) can be accepted. This means

transformational leadership and learning organizations have contributed to teacher creativity because of the supporting factors in increasing teacher creativity.

Based on the results above, it can be concluded that there is a positive relationship between transformational leadership and learning organization together with teacher creativity.

## CONCLUSION

Based on the research results, the following conclusions can be obtained: (1) There is a positive relationship between transformational leadership and teacher creativity with a correlation coefficient  $r_{y.1} = 0.368$  and a functional relationship equation  $\hat{Y} = 6.716 + 0.861X_1$ . Transformational leadership contributes 13.5% to teacher creativity. This means that transformational leadership contributes to teacher creativity. Increasing transformational leadership will increase teacher creativity and vice versa. If transformational leadership decreases, it will reduce teacher creativity. (2) There is a positive relationship between learning organization and teacher creativity with a correlation coefficient  $r_{y.2} = 0.796$  and the functional relationship equation  $\hat{Y} = -15.225 + 0.978X_2$ . Learning organization contributes 63.3% to teacher creativity. This means that learning organization contributes to teacher creativity. Increasing learning organization will increase teacher creativity, and conversely, if learning organization decreases, it will reduce teacher creativity. (3) There is a positive relationship between transformational and learning organization together with teacher creativity with a correlation coefficient  $R = 0.808$  and a functional relationship equation  $\hat{Y} = -58.672 + 0.340X_1 + 0.925X_2$ . The contribution of transformational leadership and learning organization together with teacher creativity implies that the better the transformational leadership and learning organization, the better the teacher's creativity will be. The contribution of transformational leadership and learning organization to teacher creativity is 65.2%.

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