



TRANSFORMATIONAL IN TEACHER CREATIVITY

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ABSTRACT

The researcher's aim in raising this theme is to obtain information about how much influence transformational leadership has on teacher creativity in the organization (school). The targets studied by researchers were 290 State Civil Apparatus/ *Aparatur Sipil Negara* (ASN) teachers in Cibitung District State Elementary Schools with a total of 38 schools. Researchers used a significance level of 5% because of the large number of samples in the Cibitung District. This research also used *multistage random sampling* because the State Civil Apparatus (ASN) was not evenly distributed in each school. The results of this research show that (1) there is an influence of transformational leadership on teacher creativity, (2) there is an influence of organizational climate on teacher creativity, and (3) there is an influence of transformational leadership on organizational climate.

Keywords:

Transformational leadership, teacher creativity, organization climate.

INTRODUCTION

One essential element of a nation is its educational system. Education serves as a pivotal indicator of a country's advancement and development. Ensuring access to education for all citizens is imperative for securing the future prosperity of the nation. Indonesia is one that views education as very important and as a joint conscious effort in advancing the nation and state. Based on Law Number 20 of 2003 Article 1 paragraph 1 which states that "Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character as well as the skills needed by himself, society, nation and state" (Kemdikbud, 2003). From this law, we can understand that education is a human process for developing personal abilities and noble character to achieve a better society. Education must also be able to provide creative cultural values so that they can think critically and have morals. It cannot be denied that the spearhead of education itself cannot be separated from the role of a teacher, this is stated in Law Number 14 of 2005 concerning Teachers and Lecturers Article 1 paragraph 1 states that: "Teachers are professional educators with the main task of educating, teaching, guiding, directing, training, assessing and evaluating students in early childhood education through formal education, primary education and secondary education (Kemdikbud, 2005).

From Law Number 14 of 2005, it is implied that teachers are professional educators who must be able to develop their creativity in teaching which will later have an impact on students. (Colquitt et al., n.d.2019:375) Stated that creativity is the use of new ideas in work, solving problems and carrying out innovative actions. Nevertheless, the creative potential of a teacher cannot flourish without the steadfast support of a leader, typically the principal. A guiding and directive figure, the principal plays a crucial role in fostering the professional growth of teachers by



imparting knowledge and skills related to effective teaching. Additionally, the organizational climate within which teachers operate significantly influences their ability to innovate and excel in their roles. Therefore, a supportive leadership and conducive work environment are indispensable for unlocking and nurturing the creativity of educators. Daniels, Muyters and Hondelghem also stated that the teachers, whose school leaders participated in the intervention, indicated higher levels of organizational learning climate (Daniëls et al., 2021). Teachers, whose school leaders participate and monitor directly in the learning process (characteristics of transformational leaders), will show higher levels of organizational climate. Therefore, it is very important to involve transformational school principals in order to improve a good organizational climate in schools. Against this backdrop, researchers are intrigued by the prospect of investigating the impact of transformational leadership and various other factors on teacher creativity.

METHOD

This study adopts a quantitative approach, employing three variables: teacher creativity (Y), transformational leadership (X1), and organizational climate (X2). The research is conducted among a population of 168 teachers in Public Elementary Schools within Cibitung Sub-district, Bekasi Regency. The entire population is considered, and a saturated sample of 168 teachers is selected. Data collection involves the use of a Likert scale through a questionnaire designed by Tindaon (2020). The analysis phase incorporates several tests such as validity, reliability, normality, Spearman, and hypothesis testing for assessing the relationships between variables. Microsoft 365 and IBM SPSS Statistic 26 are the tools applied for these tests. The significance level chosen for the study is 0.05. The data collection method utilized for this research is the distribution of questionnaires.

RESULTS AND DISCUSSION

Within the scope of this research, the participants under investigation are teachers affiliated with public elementary schools situated in Cibitung Sub-district, Bekasi Regency. 19 public elementary schools namely SDN Kertamukti 01, SDN Kertamukti 02, SDN Muktiwari 01, SDN Muktiwari 02, SDN Wanajaya 01, SDN Wanajaya 02, SDN Wanajaya 03, SDN Wanajaya 04, SDN Wanasari 01, SDN Wanasari 02, SDN Wanasari 03, SDN Wanasari 04, SDN Wanasari 05, SDN Wanasari 06, SDN Wanasari 08, SDN Wanasari 09, SDN Wanasari 12, SDN Wanasari 13 dan SDN Wanasari 15. The number of sample respondents is 168 teachers.

1. Analyze Requirement Test

a. Validity Test

To assess the quality of the research data, it is crucial to initiate a validity test followed by a reliability test. Validity testing ensures that the research instrument measures what it intends to measure, while reliability testing evaluates the consistency and stability of the measurements over time. Both tests contribute to the overall credibility and trustworthiness of the research findings. (Indriyani et al., 2014) that validity is used as a measuring tool through the calculation process, the results can be used to





determine the level of validity or accuracy of the concepts and variables that have been designed and determined by the researcher. In the validity test, a variable construct is said to be appropriate as a statement if its validity level can reach a high value. The provisions of the validity test are that a variable is said to be valid if the r-calculated value is more than the r-table or the significance value is less than 0.05 (Utami, 2023).

a) Validity Test of Teacher Creativity Data

The outcome of the Pearson correlation validity test for Teacher Creativity is determined by the calculated Pearson correlation coefficient (r) and its associated significance value. In this study, the r-table value for 168 teachers with a significance level of 5 percent is established at 0.1515. The analysis of the data processed using SPSS reveals that all questions related to the teacher creativity variable yield valid results. This validity is confirmed as the calculated r-value for each question surpasses the threshold of 0.1515. Furthermore, the significance values for all questions associated with the teacher creativity variable are deemed valid, given that they are less than the commonly used significance level of 0.05.

b) Validity Test of Transformational Leadership Data

The outcomes of the Pearson correlation validity test for Transformational Leadership are presented through the calculated Pearson correlation coefficient (r) and its associated significance value. In this study, the r-table value for 168 teachers with a significance level of 5 percent is established at 0.1515. According to the results of data processing using SPSS, all questions related to the transformational leadership variable exhibit valid outcomes. This is evidenced by the fact that the calculated r-value for each question exceeds the threshold of 0.1515. Additionally, the significance values for all questions related to the transformational leadership variable are considered valid, as they are less than the commonly applied significance level of 0.05.

c) Validity Test of Organizational Climate Data

The findings of the Pearson correlation validity test for Organizational Climate are expressed through the calculated Pearson correlation coefficient (r) and its associated significance value. In this investigation, the r-table value for 168 teachers with a significance level of 5 percent is established at 0.1515. Analysis of the data processed using SPSS indicates that all questions related to the organizational climate variable yield valid results. This is evident as the calculated r-value for each question surpasses the threshold of 0.1515. Furthermore, the significance values for all questions pertaining to the organizational climate variable are considered valid, as they are less than the commonly utilized significance level of 0.05.

b. Reliability Test

The reliability test is carried out to measure how consistent the question items in the research instrument are if repeated measurements are made (Utami, 2023).



Table 1: Data Reliability Test Criteria (Sugiono et al., 2021).

r (correlation coefficient)	interpretation
0.810 – 1.000	Very High (indicating a very strong positive or negative correlation)
0.610 – 0.800	High (indicating a strong positive or negative correlation)
0.410 – 0.600	Medium (indicating a moderate positive or negative correlation)
0.210 – 0.400	Low (indicating a weak positive or negative correlation)
0.100 – 0.200	Very Low (indicating a very weak positive or negative correlation)

A higher Cronbach's alpha indicates a greater degree of internal consistency among the items, suggesting that they are measuring the same underlying construct consistently. Researchers typically aim for a Cronbach's alpha of at least 0.70, but the acceptable threshold may vary depending on the specific context and objectives of the study. According to (Arikunto, 2013) the reliability of an item can be determined through the criteria for the Cronbach alpha value > 0.6 .

a) Teacher Creativity Data Reliability Test

The results of the teacher creativity questionnaire reliability test can be seen in Figure 1. Based on the calculation of Cronbach's Alpha, it is found that the data is reliable with a very high level of reliability. The Cronbach's Alpha value for teacher creativity measurement data is more than 0.6 or more precisely, 0.954.

Case Processing Summary			
		N	%
Cases	Valid	168	100.0
	Excluded ^a	0	.0
	Total	168	100.0
a. Listwise deletion based on all variables in the procedure.			
Reliability Statistics			
		Cronbach's Alpha	N of Items
		.954	30

Figure 1. Teacher Creativity Data Reliability Test

b) Transformational Leadership Data Reliability Test

Figure 2 illustrates the results of the reliability test for the Transformational Leadership questionnaire. The calculation of Cronbach's Alpha indicates that the data exhibits a very high level of reliability. Specifically, the Cronbach's Alpha value for the transformational leadership measurement data is reported as 0.976, surpassing the common threshold for excellent reliability. This suggests that the items within the transformational leadership questionnaire demonstrate strong internal consistency, affirming the reliability of the data collected for assessing transformational leadership in the study.





Case Processing Summary			
Cases	Valid	N	%
	Excluded ^a	0	.0
	Total	168	100.0
a. Listwise deletion based on all variables in the procedure.			
Reliability Statistics			
Cronbach's Alpha		N of Items	
.976		30	

Figure 2. Transformational Leadership Data Reliability Test

c) Organizational Climate Data Reliability Test

Figure 3 presents the outcomes of the reliability test for the Organizational Climate questionnaire. The calculation of Cronbach's Alpha indicates that the data exhibits a very high level of reliability. Specifically, the Cronbach's Alpha value for the organizational climate measurement data is reported as 0.965, surpassing the common threshold for excellent reliability. This high value suggests strong internal consistency among the items within the organizational climate questionnaire, affirming the reliability of the data collected for evaluating organizational climate in the study.

Case Processing Summary			
Cases	Valid	N	%
	Excluded ^a	0	.0
	Total	168	100.0
a. Listwise deletion based on all variables in the procedure.			
Reliability Statistics			
Cronbach's Alpha		N of Items	
.965		30	

Figure 3. Organizational Climate Data Reliability Test

c. Normality Test

The normality test is a statistical test used to determine whether the data held has a normal distribution or not (Usmadi, 2020).

Tabel 2. Normality Test of Transformational Leadership (X1) Variabel On Teacher Creativity (Y)

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		168
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	6.09924947
Most Extreme Differences	Absolute	.067
	Positive	.067



	Negative	-.034
Test Statistic		.067
Asymp. Sig. (2-tailed)		.065 ^c

Source : Processed by Researchers (2024) SPSS

The normality test results for the Transformational Leadership (X1) variable on Teacher Creativity (Y) indicate a significance value of 0.065, which is greater than the commonly used significance level of 0.050. Based on this result, it can be concluded that the residual values follow a normal distribution.

Tabel 3. Normality Test of Organizational Climate (X2) Variabel On Teacher Creativity (Y)
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		168
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	4.47864864
Most Extreme Differences	Absolute	.069
	Positive	.069
	Negative	-.030
Test Statistic		.069
Asymp. Sig. (2-tailed)		.051 ^c

Source : Processed by Researchers (2024) SPSS

Based on the results of the normality test for the Organizational Climate Variable (X2) on Teacher Creativity (Y) in table 2, it is known that the significance value is $0.051 > 0.05$. It can be concluded that the residual value is normally distributed. So with the normally distributed residual values, the regression model of Organizational Climate (X2) on Teacher Creativity (Y) is included in good regression model.

Tabel 4. Normality Test of Transformational Leadership (X1) Variabel On Organizational Climate (X2)

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		168
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	6.38592919
Most Extreme Differences	Absolute	.051
	Positive	.051
	Negative	-.038
Test Statistic		.051
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Source : Processed by Researchers (2024) SPSS

Based on the normality test results of the Transformational Leadership Variable (X1) on Organizational Climate (X2) in table 3, it is known that the significant value is



0.200 > 0.05. It can be concluded that the residual value is normally distributed. So with the normally distributed residual values, the transformational leadership (X1) regression model on Organizational Climate (X2) is included in good regression model.

d. Spearman Correlation Test

Spearman test is also used in this research with the aim of testing the relationship between research variables in non-parametric statistic (Zhang et al., 2016). This test is also carried out to see the strength of the relationship between variables and to see the direction of the relationship between these variables. The basis for making decisions from this test is that if the significance value is less than 0.05, then there is a correlation between variables. Conversely, if the significance value is more than 0.05 then there is no correlation between variables. Meanwhile, the level of correlation strength depends on the value of the correlation coefficient.

Tabel 5. Spearman Test of Transformational Leadership (X1) on Teacher Creativity (Y)

Correlations			Teacher Creativity	Transformasional Leadership
Spearman's rho	Teacher Creativity	Correlation Coefficient	1.000	.708**
		Sig. (2-tailed)	.	.000
		N	168	168
	Transformasional Leadership	Correlation Coefficient	.708**	1.000
		Sig. (2-tailed)	.000	.
		N	168	168

** . Correlation is significant at the 0.01 level (2-tailed).

Source : Processed by Researchers (2024) SPSS

The results of the Spearman test, as presented in Table 1, indicate that the significance value for the Transformational Leadership (X1) variable on Teacher Creativity (Y) is less than 0.05. This finding suggests that there is a statistically significant correlation between Transformational Leadership and Teacher Creativity.

Tabel 6. Spearman Test of Organizational Climate (X2) on Teacher Creativity (Y)

Correlations			Teacher Creativity	Organizational Climate
Spearman's rho	Teacher Creativity	Correlation Coefficient	1.000	.828**
		Sig. (2-tailed)	.	.000
		N	168	168
	Organizational Climate	Correlation Coefficient	.828**	1.000
		Sig. (2-tailed)	.000	.
		N	168	168

** . Correlation is significant at the 0.01 level (2-tailed).

Source : Processed by Researchers (2024) SPSS

According to the Spearman test results presented in Table 2, the variable Organizational Climate (X2) exhibits a significance value of less than 0.05 in relation



to Teacher Creativity (Y). This implies a statistically significant correlation between Organizational Climate and Teacher Creativity. Furthermore, the correlation strength between these two variables is measured at 0.828, indicating a very strong relationship.

Tabel 7. Spearman Test of Transformational Leadership (X1) on Organizational Climate (X2)

Correlations			Organizational Climate	Transformasional Leadership
Spearman's rho	Organizational Climate	Correlation Coefficient	1.000	.599**
		Sig. (2-tailed)	.	.000
		N	168	168
	Transformasional Leadership	Correlation Coefficient	.599**	1.000
		Sig. (2-tailed)	.000	.
		N	168	168

** . Correlation is significant at the 0.01 level (2-tailed).

Source : Processed by Researchers (2024) SPSS

Referring to the outcomes of the Spearman test as outlined in Table 3, it is evident that the variable Transformational Leadership (X1) demonstrates a significance value lower than 0.05 concerning Organizational Climate (X2). This leads to the conclusion that there exists a statistically significant correlation between Transformational Leadership and Organizational Climate. Furthermore, the correlation strength between these two variables is measured at 0.599, indicating a moderate strength of relationship.

2. Hypothesis Test

Hypothesis testing is to make decisions based on existing data evidence, whether we can reject the null hypothesis and accept the alternative hypothesis or vice versa (Rosdiawiata & Sujana, 2022). The obtained constant of -2.360, accompanied by negative parameters, suggests that in the scenario where both transformational leadership and organizational climate are zero, the teacher creativity value remains constant at -2.360. Additionally, the regression coefficient for the transformational leadership variable, which stands at 0.287, signifies that for every unit increase in transformational leadership, there is an associated increase of 0.287 in teacher creativity. Similarly, the regression coefficient for the organizational climate variable is 0.723, indicating that each one-unit increase in organizational climate corresponds to a 0.723 increase in teacher creativity.

**Table 8. Results of Multiple Regression Analysis Coefficients^a**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.360	5.327		-.443	.658
	Transformasional leadership	.287	.044	.298	6.585	.000
	Organizational climate	.723	.049	.674	14.881	.000

a. Dependent Variable: Teacher Creativity

a. Coefficient Determination Test

The calculated R-Square value of 0.792 indicates that 79.2% of the variability in teacher creativity can be explained by the variables of transformational leadership and organizational climate in the model. In other words, these two factors contribute significantly to understanding and predicting teacher creativity. However, it's important to note that 20.8% of the variability in teacher creativity remains unexplained by the model. This unexplained portion may be influenced by other factors that are not accounted for in the study, suggesting the presence of additional variables or influences outside the scope of the examined transformational leadership and organizational climate.

Table 9. Results of Coefficient Determination Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.890 ^a	.792	.790	4.010

a. Predictors: (Constant), Organizational climate, Transformasional leadership

b. Statistical t-test

The significant values for both the transformational leadership variable ($0.00 < 0.05$) and the motivation variable ($0.00 < 0.05$) imply that both transformational leadership and organizational climate have a statistically significant impact on teacher creativity. Specifically, a significance value less than 0.05 indicates that the observed effects are unlikely to have occurred by chance, supporting the conclusion that there is a meaningful relationship between transformational leadership and teacher creativity, as well as between organizational climate and teacher creativity. Therefore, based on these findings, it can be affirmed that transformational leadership and organizational climate significantly influence teacher creativity.

c. Statistical F Test

The statistical test F is used to determine whether or not there is an influence of independent variables on the dependent variables together (Darma, 2021). According to the F statistical test presented in Table 2, it is evident that the obtained p-value is 0.000, which is less than the significance level of 0.05. This result signifies that the combined influence of transformational leadership and organizational climate has a significant impact on teacher creativity.



Table 10. F Test Result
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10106.329	2	5053.164	314.321	.000 ^b
	Residual	2652.617	165	16.076		
	Total	12758.946	167			

a. Dependent Variable: Teacher Creativity

b. Predictors: (Constant), Organizational climate, Transformasional Leadership

CONCLUSION

The results of the normality tests for the Transformational Leadership (X1) variable with respect to Teacher Creativity (Y) reveal a significance value of 0.065, which is equal to or greater than 0.050. This indicates that the data follows a normal distribution. Similarly, for the organization climate variable in relation to Teacher Creativity (Y), the significance value is 0.051, slightly exceeding the 0.050 threshold, confirming that the data is normally distributed. Moreover, the significance value for the relationship between Transformational Leadership (X1) and Organization Climate (X2) is 0.200, which is greater than 0.050, signifying that the data follows a normal distribution.

The results of the Spearman Rank correlation test indicate that all independent variables exhibit a correlation with the dependent variable. Specifically, the correlation coefficient value for the Spearman test between the Transformational Leadership (X1) variable and Teacher Creativity (Y) is 0.708. The significance value associated with this coefficient demonstrates a significant relationship between these two variables. In the case of the organizational climate (X2) variable and Teacher Creativity (Y), the correlation coefficient is 0.828, indicating a very strong relationship between the two variables. Additionally, the correlation coefficient between the Transformational Leadership (X1) variable and Organizational Climate (X2) is 0.599, suggesting a fairly strong relationship between these two variables.

The statistical tests, both t-test and F-test, reveal significant results for the Transformational Leadership and Organizational Climate variables in relation to teacher creativity. The t-test shows a significant value of 0.00, which is less than the 0.05 significance level. This suggests that both Transformational Leadership and Organizational Climate individually have a significant influence on teacher creativity. Furthermore, the F-test also indicates a significant value of 0.000, which is less than 0.05. This finding implies that the combined impact of transformational leadership and organizational climate on teacher creativity is statistically significant.





REFERENCE

- Arikunto, S. (2013). *A. Subyek Penelitian*. Ghalia Indonesia: Jakarta.
- Basti, M., & Madadzadeh, F. (2021). A beginner's guide to sampling methods in medical research. *Critical Comments in ...* <https://publish.kne-publishing.com/index.php/CCB/article/view/7397>
- Colquitt, J., LePine, J. A., & Wesson, M. J. (n.d.). *Organizational behavior: improving performance and commitment in the workplace*.
- Daniëls, E., Muyters, G., & ... (2021). Leadership training and organizational learning climate: Measuring influences based on a field experiment in education. *International Journal of ...* <https://doi.org/10.1111/ijtd.12206>
- Darma, B. (2021). *Statistika Penelitian Menggunakan SPSS (Uji Validitas, Uji Reliabilitas, Regresi Linier Sederhana, Regresi Linier Berganda, Uji t, Uji F, R²)*. books.google.com.
<https://books.google.com/books?hl=en%5C&lr=%5C&id=acpLEAAQBAJ%5C&oi=fnd%5C&pg=PA3%5C&dq=uji+reliabilitas%5C&ots=IZi6ZWmkY5%5C&sig=iD9mawoRKFHyLsOy-yzFRVw02bM>
- Indriyani, N., Latif, S., & Zulkifli, R. R. (2014). Meningkatkan Kemampuan Interaksi Sosial Siswa dengan Menggunakan assertive training. *ALIBKIN ...* <http://download.garuda.kemdikbud.go.id/article.php?article=1512883%5C&val=1571%5C&title=MENINGKATKAN KEMAMPUAN INTERAKSI SOSIAL SISWA DENGAN MENGGUNAKAN ASSERTIVE TRAINING>
- Kemdikbud. (2003). Undang-undang Republik Indonesia Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional. *Demographic Research*, 49(0), 1-33 : 29 pag texts + end notes, appendix, referen.
- Rosdiawiata, E., & Sujana, A. (2022). Penerapan Model Pembelajaran Problem Based Learning (PBL) Untuk Meningkatkan Kemampuan Pemecahan Masalah Matematis Siswa SMA Pada Materi Fungsi *Journal of Mathematics Learning*. <http://www.jml.ejournal.id/index.php/penmat/article/view/51>
- Sugiono, E., Darmadi, D., & Efendi, S. (2021). Pengaruh Kompensasi, Gaya Kepemimpinan dan Kompetensi Terhadap Kinerja Pegawai Melalui Kepuasan Kerja Pada Pusdatin Kementan RI. *Jurnal Manajemen Dan ...* <http://jurnal.unmuhjember.ac.id/index.php/JMBI/article/view/5599>
- Tindaon, J. (2020). Pengaruh Lingkungan Tempat Tinggal Terhadap Hasil Belajar Mahasiswa Universitas Quality Berastagi Program Studi PGSD. *Journal Natural of Sciences*. <https://www.academia.edu/download/79410942/pdf.pdf>
- Undang-Undang (UU) Tentang Guru Dan Dosen Nomor 14 Tahun 2005, Dewan Perwakilan Rakyat Indonesia 2 (2005).
- Usmadi, U. (2020). Pengujian persyaratan analisis (Uji homogenitas dan uji normalitas). *Inovasi Pendidikan*. <https://www.jurnal.umsb.ac.id/index.php/inovasipendidikan/article/view/File/2281/1798>
- Utami, Y. (2023). Uji Validitas dan Uji Reliabilitas Instrument Penilaian Kinerja Dosen. *Jurnal Sains Dan Teknologi*. <http://ejournal.sisfokomtek.org/index.php/saintek/article/view/730>



Zhang, W. Y., Wei, Z. W., Wang, B. H., & Han, X. P. (2016). Measuring mixing patterns in complex networks by Spearman rank correlation coefficient. *Physica A: Statistical Mechanics*
<https://www.sciencedirect.com/science/article/pii/S0378437116001023>

