

Modeling and Optimization of Increasing Teacher Creativity Based on Local Wisdom and Organizational Support

Mohammad Lutfi Nugraha, Soewarto Hardhienata, Rais Hidayat

Universitas Pakuan, Indonesia

Email: muhammadlutfinugraha@gmail.com, soewartohardhienata@unpak.ac.id,
raishidayat@unpak.ac.id

ABSTRACT

The creativity of Early Childhood Education (PAUD) teachers plays a crucial role in improving the quality of learning, as children require innovative, engaging, and developmentally appropriate stimuli. However, many PAUD teachers still face obstacles in developing creativity due to limited organizational support, reward systems, and the low integration of local wisdom values into the learning process. The purpose of this study is to develop a model for PAUD teacher creativity based on local wisdom and organizational support. The POP-SDM (Modeling and Optimization of Resource Management) method was used in this study. Data collection in the simple qualitative research phase employed direct interviews, recorded and stored via WhatsApp voice notes. In this study, data were also collected using a questionnaire. Model and hypothesis testing were conducted using partial least squares structural equation modeling (PLS-SEM) with the SmartPLS version 3.0 application. The results indicate that improving PAUD teacher creativity in Tasikmalaya City can be achieved through a research constellation model identified through field exploration, supported by strategies derived from SEM analysis and improvement measures based on SITOREM analysis. The research findings confirm that the optimal solution for improving teacher creativity lies in prioritizing indicators that need improvement. Directly, teamwork and organizational climate were shown to have a significant positive effect on teacher creativity, while trust and personality showed little effect. However, indirectly, trust provided a significant positive effect through organizational climate, while teamwork and personality remained insignificant through this pathway.

Keywords: Teacher Creativity, Local Wisdom, Organizational Support

INTRODUCTION

Education plays a crucial role in shaping individuals who are faithful, pious, and possess noble character, embodying qualities such as creativity, intelligence, and responsibility as democratic citizens (Arthur, 2021). The national education system is designed to ensure equal access, improve quality, and manage effectively to face changing times. In line with the values of Pancasila and the 1945 Constitution of the Republic of Indonesia, national development in education is a strategic step to improve the quality of Indonesia's human resources. the law establishes education as the primary tool for achieving this goal. The primary goal of education is to enhance the overall potential of each student, encompassing intelligence, spirituality, and personality, grounded in national cultural and religious values.

Early Childhood Education (ECE) provides a crucial moral foundation for developing children's character. This period fosters children's cognitive, social, and emotional development, which is why teachers play a vital role in teaching and guiding young children. Teachers must foster children's creativity through engaging and innovative learning methods. Early Childhood Education (PAUD) teachers play a crucial

role in children's early development, particularly during the golden age of 0–6 years. At this stage, children experience rapid physical, cognitive, social, and emotional growth. Teachers are responsible for guiding, coaching, and creating a conducive environment for learning and exploration. They not only teach but also support the development of children's personality, character, and social skills through interactive and enjoyable activities.

The role of teachers extends beyond academic instruction to the development of children's morals and ethics. They serve as role models and guides for children in understanding social and cultural norms. Furthermore, teachers must understand the unique needs and potential of each child and develop learning methods appropriate to their developmental stage. Considering the characteristics of early childhood, teachers are required to be creative in designing activities that encourage sensory and motor development, as well as language and cognitive skills.

To effectively fulfill this role, teachers require various competencies, including a deep understanding of child development, the ability to communicate effectively with children and parents, and the capacity to plan and implement engaging and meaningful learning. Teacher qualifications in Indonesia are continuously being improved through various training and certification programs to ensure they can fulfil this crucial role. Challenges faced by teachers in the modern educational context include adapting to technological developments and social change, making creativity and flexibility key factors in the success of early childhood education.

However, the reality on the ground shows that challenges in early childhood education remain significant. One major issue is the low level of teacher creativity in teaching. Creativity is crucial for making the teaching and learning process more engaging and stimulating children's thinking and imagination. Teacher creativity is also necessary to address the various limitations of facilities and infrastructure that often hinder the implementation of early childhood education, especially in remote areas. Therefore, the presence of early childhood education teachers is essential in terms of their roles, duties, and responsibilities in realizing the goals of National Education by enhancing creativity in the teaching and learning process, as mandated by the 1945 Constitution.

A teacher must possess renewable creativity to stimulate children's imagination through play. This aligns with research by Desianti et al., 2022, which states that creativity is the ability to develop innovative and engaging teaching methods that can increase student motivation and learning outcomes. Teacher creativity is crucial in creating a fun and effective learning environment, especially in an era of ever-evolving education influenced by information technology. Teacher creativity is also necessary in implementing 21st-century learning strategies, which include a student-centered learning approach, fostering student creativity, creating an engaging atmosphere, presenting a variety of learning styles, and directly assessing students' learning skills. As educators, teachers are a key determinant of the success of achieving educational goals and improving quality. In early childhood education, teachers must be highly creative so learning inside and outside the classroom runs smoothly and is enjoyable for students. Teachers play a crucial and strategic role in education as they work directly with students, conveying knowledge through instruction and examples.

In the context of Indonesia, rich in culture and local wisdom, there is significant potential to be tapped into in efforts to enhance teacher creativity. Local wisdom is a

cultural heritage passed down from generation to generation, encompassing values, norms, customs, and knowledge developed within a community. Integrating local wisdom into the learning process is expected to enrich teaching materials, making them more relevant to children's socio-cultural environment and fostering a love for culture and national identity. Utilizing local wisdom as a learning foundation can also stimulate teachers' creativity in designing more varied and contextual teaching methods. For example, through the introduction of folklore, traditional games, or local art, all of which can serve as engaging and meaningful learning tools. Thus, teacher creativity is not only enhanced but also valued and recognized as an integral part of education based on local values.

The knowledge, values, traditions, and wisdom possessed by a particular community or region is called local wisdom. It relates to the understanding and application of local culture in daily life. Local wisdom is the wealth of knowledge and wisdom passed down within a community from generation to generation. Local wisdom can encompass various aspects of life, such as ecological, cultural, social, and spiritual wisdom. Some aspects of local wisdom include knowledge of local flora and fauna, wise use of natural resources, sustainable lifestyles, traditions and customs, and local values and ethics. According to M. Rummar, local wisdom is an important factor in education because it represents the accumulation of knowledge and policies developed within a community. The values and ethics embodied in local wisdom serve as a guide in the management of natural and social resources and serve as a sense of identity for each community. By understanding local wisdom, the younger generation gains knowledge and instills a love for their culture and environment (Rummar, 2022).

Indigenous or local knowledge or local genius are two terms used in anthropology to describe local wisdom, which is the foundation of cultural identity. According to Annisha (2024), local wisdom is a cultural characteristic of a region which includes the way humans interact with each other, with their environment, and with their belief systems, functioning as moral and ethical guides in shaping societal character.

Local wisdom refers to specific communities and localities because it is a type of environmental wisdom embedded in social life in a particular place or region. This local wisdom is internalized, practiced, taught, and passed down from generation to generation. It simultaneously shapes human behavior patterns toward nature and fellow human beings.

However, realizing this requires a systematic and structured approach. Therefore, this research aims to model and optimize the enhancement of teacher creativity based on local wisdom. This modelling is expected to guide policymakers, education administrators, and teachers in designing effective strategies and programs to enhance teacher creativity. This optimization will also focus on identifying key factors influencing teacher creativity and developing a model that can be widely applied across various early childhood education contexts in Indonesia.

Through this research, it is hoped that appropriate solutions can be found to overcome various existing obstacles, thereby creating a more creative and inspiring educational environment for children. Ultimately, this will support the achievement of national education goals, namely, to educate the nation and shape Indonesians who are faithful, pious, and have noble morals, in accordance with the mandate of the 1945 Constitution and the values of the Qur'an.

Preliminary research was conducted to determine teacher creativity in Tasikmalaya City. Based on data obtained through a preliminary survey conducted from June 12, 2023, to July 21, 2023, using a questionnaire, it was determined that teacher creativity in Early Childhood Education (PAUD) institutions in Tasikmalaya City needs improvement. The preliminary survey consisted of statements answered by 23 teachers from seven early childhood education institutions in Tasikmalaya City. The indicators for teacher creativity variables measured were: (1) Originality, (2) Flexibility of thinking, (3) Elaboration, (4) Adaptability, and (5) Self-organization and perseverance.

Data analysis of the preliminary survey results, comprising 15 statements answered by 26 teachers from seven early childhood education institutions, showed that the majority of respondents (67%) felt the need to optimize originality in designing learning activities. Of the 26 respondents, 38% answered “Not Deep” (KD) and 28% “Need” (P), indicating that many teachers have not fully generated original and unique ideas. This suggests a need for training and development to increase creativity in designing more innovative learning activities. Additionally, 59% of respondents indicated a need to increase flexibility of thinking. Those who answered, “Not Deep” (KD) and “Need” (P) show that many teachers have not fully adapted to changes or adjusted learning strategies according to student needs. This highlights the importance of training focused on adaptation and response to diverse student needs.

The survey results also showed that 39% of respondents felt the need to optimize elaboration skills. While some teachers could develop detailed learning ideas, many needed to add creative elements to teaching materials. This indicates the importance of developing elaboration skills to help students better understand material and make learning more engaging. Regarding adaptability, 46% of respondents felt the need to improve their ability to adapt learning methods. Those who answered “Not Deep” (KD) and “Need” (P) reflected that many teachers were not yet fully able to spontaneously change learning strategies, indicating a need for better training to adapt teaching methods to suit classroom situations.

Furthermore, previous research has extensively discussed variables influencing teacher creativity, but few have addressed the role of local wisdom values in this context. Therefore, this study aims to fill this gap by modelling the improvement of teacher creativity in Tasikmalaya City using variables related to local wisdom values.

Based on the results of previous research and this preliminary survey, teacher creativity remains an important area for further research because many factors provide opportunities for increasing it. No research has been found that examines two or three independent variables together with the creativity variable, so this research hopes to fill that gap (state of the art) and provide novelty for further research to improve teacher creativity. The data analysis shows that teacher creativity in Tasikmalaya City is still problematic and needs improvement. Therefore, research is needed to explore and identify methods and steps required to improve teacher creativity in Tasikmalaya City, including through modelling and optimizing teacher creativity.

The objective of this study is to model and optimize the creativity of Early Childhood Education (PAUD) teachers in Tasikmalaya City by integrating local wisdom values with organizational support factors. Specifically, the study seeks to (1) identify key determinants of teacher creativity such as originality, flexibility, elaboration, and adaptability; (2) analyze the extent to which local wisdom, teamwork, and organizational

climate contribute to enhancing teacher creativity; and (3) develop a practical model that can be applied to improve creative teaching practices.

The benefits of this research are both theoretical and practical. Theoretically, it enriches the literature on teacher creativity by addressing the underexplored role of local wisdom as a variable supporting innovation in early childhood education. Practically, the findings provide actionable recommendations for policymakers, educational institutions, and teacher training providers in designing training programs that strengthen originality, flexibility, elaboration, and adaptability skills.

RESEARCH METHOD

The POP-SDM (Modeling and Optimization of Resource Management) method was used in this study. The POP-SDM method is a qualitative discovery research method combined with a quantitative description or quantitative causality method. This method is a sequential exploratory approach that begins with research on teacher creativity. In the initial research on teacher creativity, a gap was identified between the actual conditions (*des sein*) and the ideal conditions (*des sollen*) related to teacher creativity. To better understand the influencing factors and explore the relationships between these factors, positively and dominantly affecting teacher creativity, qualitative research was conducted through interviews with informants. The results of these interviews were then analyzed, reduced, and grouped into variables (coded). From these variables, a constellation model of teacher creativity was constructed, and experts were consulted to verify and analyze the results to generate research hypotheses. The next stage of the research involved a quantitative approach to test the constellation model and validate the hypotheses.

The qualitative research was conducted at four Early Childhood Education (PAUD) schools in Tasikmalaya City, with 12 teachers from each PAUD as informants. The qualitative research was conducted over a six-month period, from September 2023 to February 2024. The process was carried out in stages, starting with the development of the research proposal and ending with the establishment of the research hypothesis. The population in the study was all subjects or objects serving as data sources and possessing certain characteristics determined by the researcher for study. Based on data from the Indonesian Ministry of Education and Culture (<https://referensi.data.kemdikbud.go.id/690odelling690/paud/026800/2/jn/2/s2>), there were 166 Early Childhood Education Units (KB) in early childhood education centers (PAUD) spread across ten sub-districts in Tasikmalaya City. A multistage random sampling technique was used to collect the accessible research population. To obtain a representative sample from a large population, 50% of the accessible population was selected. For individual sampling, demographic factors of number of regions/sub-districts and teacher status were used as the basis for calculation.

Data collection in this simple qualitative research phase used direct interviews, which were recorded and stored via WhatsApp voice notes. The researcher solicited informants' opinions, ideas, and experiences related to the information being obtained, ensuring that all data provided was recorded completely and accurately. The objectives of the interviews were:

1. To gather data on the current state of Teacher Creativity in Early Childhood Education in Tasikmalaya City.

- To explore factors suspected of having a positive and dominant influence on Teacher Creativity, including factors related to behavior, local wisdom, and organizational support.

This study also collected data using a questionnaire. Questionnaires were used as a research instrument in a quantitative approach to gather respondents' opinions regarding statements made by the researcher regarding habits or behaviors, feelings, attitudes, beliefs, values, perceptions, personalities, and experiences of respondents or participants in accordance with the variables being studied. The variables examined in this study were teacher creativity (Y), teamwork (X1), personality (X2), trust (X3), and organizational climate (X4).

Model and hypothesis testing were conducted using the partial least squares structural equation modelling (PLS-SEM) method using the SmartPLS version 3.0 application. After establishing the teacher creativity constellation model and testing the research hypotheses, a SITOREM analysis was conducted to identify strategies and methods for improving teacher creativity. The SITOREM technique assisted researchers in identifying indicators of the independent and dependent variables that needed improvement or maintenance. In developing strategies for improving teacher creativity, priority was given to addressing indicators that were still weak but had a significant effect on teacher creativity.

RESULT AND DISCUSSION

Outer Model Analysis Phase 2

The following chart presents the results of the PLS algorithm iteration using SmartPLS 4, which represents the outer model analysis in the second phase with formative indicator constructs.

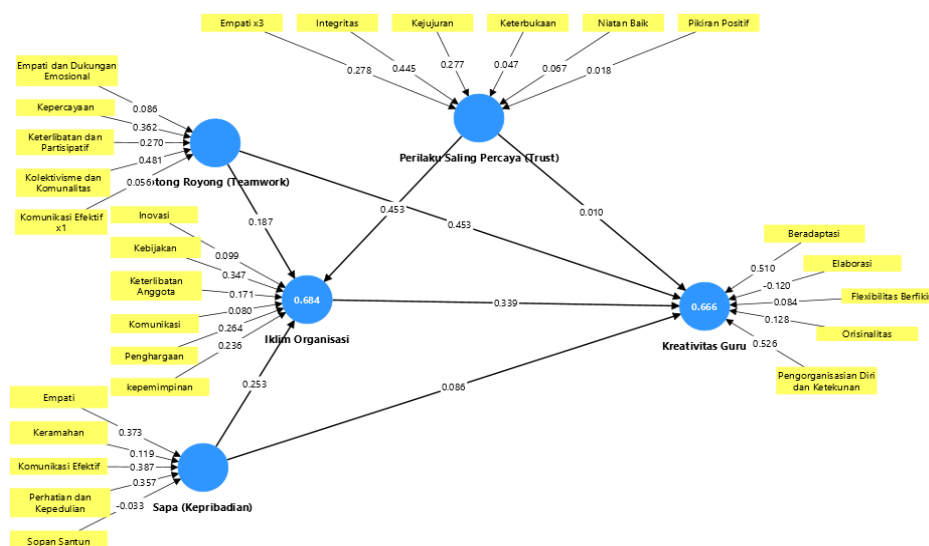


Figure 1. Second-Order Outer Model Output Chart

The following is a summary table of Outer VIP values, Outer Weight values, Outer Loadings, and the significance of the Bootstrapping results in SmartPLS 4.

Table 1. Summary of Outer Weights, Significance (T Statistics), P Values, Loading Factors, and Outer VIF in the Stage 2 Measurement Model.

Paths	Outer Weights	T Statistics	P Values	Outer Loadings	Outer VIF
Adaptation -> Teacher Creativity	0.510	25.415	0.000	0.915	3.465
Elaboration -> Teacher Creativity	-0.120	7.191	0.000	0.735	2.817
Empathy -> Greet (Personality)	0.373	14.307	0.000	0.848	1.872
Empathy and Emotional Support -> Teamwork	0.086	3.103	0.002	0.397	1.192
Empathy x3 -> Trusting Behavior	0.278	17.968	0.000	0.872	2.765
Thinking Flexibility -> Teacher Creativity	0.084	7.660	0.000	0.697	1.949
Innovation -> Organizational Climate	0.099	7.676	0.000	0.753	2.006
Integrity -> Trusting Behavior	0.445	18.261	0.000	0.931	2.891
Policy -> Organizational Climate	0.347	16.884	0.000	0.879	2.529
Honesty -> Trusting Behavior	0.277	14.550	0.000	0.862	3.080
Leadership -> Organizational Climate	0.236	12.837	0.000	0.829	3.093
Trust -> Teamwork	0.362	15.655	0.000	0.879	2.520
Friendliness -> Greet (Personality)	0.119	5.821	0.000	0.683	1.916
Openness -> Trusting Behavior	0.047	11.003	0.000	0.754	2.304
Member Engagement -> Organizational Climate	0.171	17.363	0.000	0.886	3.753
Involvement and Participation -> Teamwork	0.270	9.396	0.000	0.753	1.777
Collectivism and Communalism -> Teamwork	0.481	10.420	0.000	0.854	1.615
Communication -> Organizational Climate	0.080	6.935	0.000	0.682	1.846
Effective Communication -> Greet (Personality)	0.387	11.940	0.000	0.843	1.754
Effective Communication x1 -> Teamwork	0.056	5.918	0.000	0.612	1.854
Good Intentions -> Trust-Based Behavior	0.067	14.707	0.000	0.837	3.495
Originality -> Teacher Creativity	0.128	10.276	0.000	0.712	2.198
Appreciation -> Organizational Climate	0.264	12.840	0.000	0.829	2.131
Self-Organization and Perseverance -> Teacher Creativity	0.526	12.686	0.000	0.896	1.934

Paths	Outer Weights	T Statistics	P Values	Outer Loadings	Outer VIP
Attention and Caring -> Greetings (Personality)	0.357	12.107	0.000	0.835	2.319
Positive Thinking -> Trust-Based Behavior	0.018	5.912	0.000	0.663	1.753
Politeness -> Greetings (Personality)	-0.033	6.609	0.000	0.655	2.265

The analysis results showed that seven indicators were insignificant based on the Loading Factor category. However, because all indicators had P values < 0.05 , they still met the validity criteria and could be retained (Hair et al., 2022). Furthermore, the Outer VIP test results showed that all indicators had values below 5, indicating no indication of multicollinearity in the model.

Structural Model Analysis (Inner Model)

PLS-SEM analysis was used to measure the influence between variables, test hypotheses through bootstrapping, and assess the model's predictive power using R^2 , f^2 , and Q^2 . The results of the PLS algorithm iteration on the Teacher Creativity structural model presented path coefficients (β), which served as an empirical basis for assessing causal relationships according to the theoretical framework.

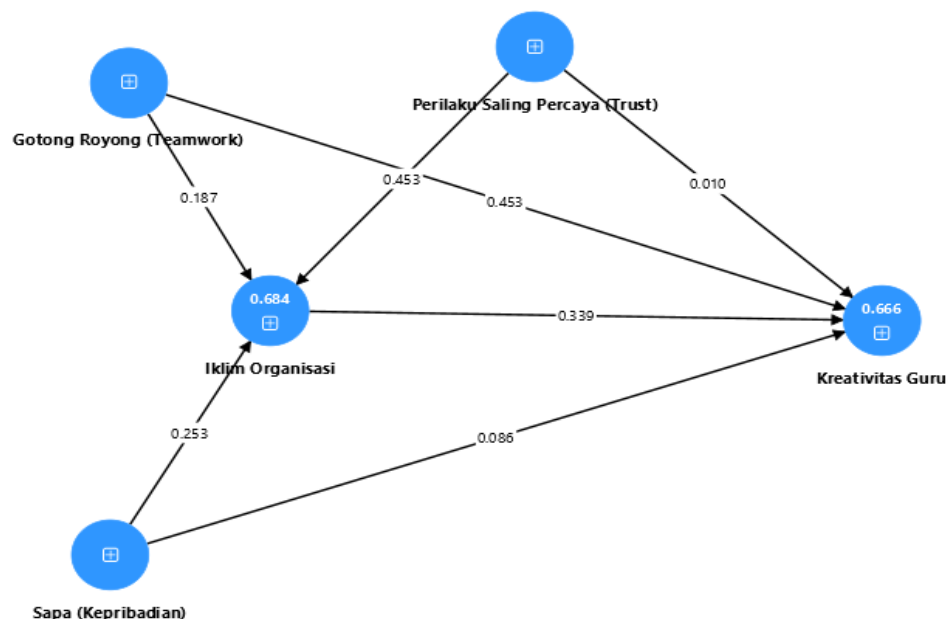


Figure 2. Results of the PLS Algorithm Iteration for the Structural Model (inner model) Path Coefficients

The path coefficient (β) in PLS-SEM indicates the direction and magnitude of the direct effect between variables, categorized as small (≈ 0.10), moderate (≈ 0.30), and large (≥ 0.50). Significance was tested through bootstrapping ($t > 1.96$; $p < 0.05$; 95% CI does not cross zero), while interpretation of the results requires consideration of the effect size (f^2), predictive power (R^2), and model specification accuracy.

Table 2. Path Coefficients, T Statistics, and P Values for Direct Effects

Direct Effects	Path Coefficients	T Statistics	P Values
Mutual Cooperation (Teamwork) -> Organizational Climate	0.187	1.831	0.069
Mutual Cooperation (Teamwork) -> Teacher Creativity	0.453	3.435	0.001
Organizational Climate -> Teacher Creativity	0.339	2.725	0.007
Trust Behavior -> Organizational Climate	0.453	4.180	0.000
Mutual Trust Behavior -> Teacher Creativity	0.010	0.082	0.935
Personality -> Organizational Climate	0.253	2.302	0.023
Personality -> Teacher Creativity	0.086	0.527	0.599

Table 3. Path Coefficient Values, T Statistics, and P Values for Indirect Effects

Indirect Effects	Path Coefficients	T Statistics	P Values
Mutual Cooperation (Teamwork) -> Organizational Climate -> Teacher Creativity	0.063	1.448	0.150
Mutual Trust Behavior (Trust) -> Organizational Climate -> Teacher Creativity	0.153	2.308	0.023
Personality -> Organizational Climate -> Teacher Creativity	0.086	1.759	0.081

Table 4. Path Coefficient Values, T Statistics, and P Values for Total Effects

Total Effects	Path Coefficients	T Statistics	P Values
Mutual Cooperation (Teamwork) -> Organizational Climate	0.187	1.831	0.069
Mutual Cooperation (Teamwork) -> Teacher Creativity	0.517	4.031	0.000
Organizational Climate -> Teacher Creativity	0.339	2.725	0.007
Trust Behavior -> Organizational Climate	0.453	4.180	0.000
Mutual Trust Behavior -> Teacher Creativity	0.164	1.412	0.160
Personality -> Organizational Climate	0.253	2.302	0.023
Personality -> Teacher Creativity	0.171	1.026	0.307

Based on the results of the path coefficient analysis, the relationship between the variables in the model can be interpreted as follows:

1. Mutual Cooperation (X1) has a positive but insignificant effect on Organizational Climate (X4) with a path coefficient of 0.187, a T-statistic of 1.831, and a P-value of 0.069 (>0.05). This means that statistically, Gotong Royong does not affect Organizational Climate, although the P-value approaches the significance limit.
2. Mutual Cooperation (X1) has a significant positive effect on Teacher Creativity (Y) with a path coefficient of 0.453, a T-statistic of 3.435, and a P-value of 0.001 (<0.05).

This indicates that increasing Gotong Royong significantly increases Teacher Creativity.

3. Organizational Climate (X4) has a significant positive effect on Teacher Creativity (Y) with a path coefficient of 0.339, a T-statistic of 2.725, and a P-value of 0.007 (<0.05). This means that a positive organizational climate encourages increased teacher creativity.
4. Trusting Behavior (X3) has a significant positive effect on Organizational Climate (X4) with a path coefficient of 0.453, a T-statistic of 4.180, and a P-value of 0.000 (<0.05). This confirms that trust is a key factor in shaping organizational climate.
5. Trusting Behavior (X3) has a positive but insignificant effect on Teacher Creativity (Y) with a path coefficient of 0.010, a T-statistic of 0.082, and a P-value of 0.935 (>0.05). This means that trust does not directly influence teacher creativity.
6. Personality (X2) has a significant positive effect on Organizational Climate (X4) with a path coefficient of 0.253, a T-statistic of 2.302, and a P-value of 0.023 (<0.05). This indicates that a positive personality contributes to a positive organizational climate.
7. Personality (X2) has a positive but insignificant effect on Teacher Creativity (Y) with a path coefficient of 0.086, a T-statistic of 0.527, and a P-value of 0.599 (>0.05). This means that personality does not directly influence teacher creativity.
8. Mutual Cooperation (X1) has a positive but insignificant effect on Teacher Creativity (Y) through Organizational Climate (X4) with a path coefficient of 0.063, a T-statistic of 1.448, and a P-value of 0.150 (>0.05). This means that there is no significant mediating effect of Organizational Climate.
9. Mutual Trust (X3) has a significant positive effect on Teacher Creativity (Y) through Organizational Climate (X4) with a path coefficient of 0.153, a T-statistic of 2.308, and a P-value of 0.023 (<0.05). This indicates a significant partial mediation effect.
10. Personality (X2) has a positive but insignificant effect on Teacher Creativity (Y) through Organizational Climate (X4) with a path coefficient of 0.086, a t-statistic of 1.759, and a p-value of 0.081 (>0.05). This indicates a mediation trend, although it is not significant at the 5% level.

Coefficient of Determination (R-Square) Analysis

The coefficient of determination (R^2) is a statistical parameter that quantifies the proportion of variance in an endogenous variable that can be linearly explained by exogenous variables in a structural model. R^2 values are classified as: 0.75 (strong/substantial), 0.50 (moderate), and 0.25 (weak). The results of the coefficient of determination analysis in this study are presented as follows:

Table 5. R-Square and Adjusted R-Square Values

	R-square	R-square adjusted
Teacher Creativity (Y)	0.684	0.676
Organizational Climate X4	0.666	0.654

Organizational Climate (X4) had an R^2 of 0.684 and an adjusted R^2 of 0.676, meaning that 68.4% of the variation in Organizational Climate was explained by Mutual Cooperation, Trust, and Personality, with slight indications of overfitting. Teacher

Creativity (Y) had an R^2 of 0.666 and an adjusted R^2 of 0.654, meaning that 66.6% of the variance was explained by Mutual Cooperation, Organizational Climate, Trust, and Personality, indicating a moderate influence of the exogenous constructs on Y.

Hypothesis Testing

Based on the path analysis results presented in Tables 2 and 3, hypothesis testing was conducted by examining the significance of the path coefficients, T-statistics, and P-values. The following is an interpretation of the ten hypotheses tested:

1. H1: Mutual Cooperation (Teamwork) (X_1) has a positive and significant effect on Teacher Creativity (Y) with a path coefficient of 0.453 ($T = 3.435$, $p = 0.001$), therefore the hypothesis is accepted.
2. H2: Personality (X_2) has a positive but insignificant effect on Teacher Creativity (Y) with a path coefficient of 0.086 ($T = 0.527$, $p = 0.599$), therefore the hypothesis is rejected.
3. H3: Trust Behavior (X_3) has a positive but insignificant effect on Teacher Creativity (Y) with a path coefficient of 0.010 ($T = 0.082$, $p = 0.935$), therefore the hypothesis is rejected.
4. H4: Organizational Climate (X_4) has a positive and significant effect on Teacher Creativity (Y) with a path coefficient of 0.339 ($T = 2.725$, $p = 0.007$), so the hypothesis is accepted.
5. H5: Mutual Cooperation (Teamwork) (X_1) has a positive but insignificant effect on Organizational Climate (X_4) with a path coefficient of 0.187 ($T = 1.831$, $p = 0.069$), so the hypothesis is rejected.
6. H6: Personality (X_2) has a positive and significant effect on Organizational Climate (X_4) with a path coefficient of 0.253 ($T = 2.303$, $p = 0.023$), so the hypothesis is accepted.
7. H7: Trust Behavior (X_3) has a positive and significant effect on Organizational Climate (X_4) with a path coefficient of 0.453 ($T = 4.180$, $p = 0.000$), so the hypothesis is accepted.
8. H8: Mutual Cooperation (Teamwork) (X_1) has a positive but insignificant indirect effect on Teacher Creativity (Y) through Organizational Climate (X_4) with a path coefficient of 0.063 ($T = 1.448$, $p = 0.150$), so the hypothesis is rejected.
9. H9: Personality (X_2) has a positive but insignificant indirect effect on Teacher Creativity (Y) through Organizational Climate (X_4) with a path coefficient of 0.086 ($T = 1.759$, $p = 0.081$), so the hypothesis is rejected.
10. H10: Trusting Behavior (X_3) has a positive and significant indirect effect on Teacher Creativity (Y) through Organizational Climate (X_4) with a path coefficient of 0.153 ($T = 2.308$, $p = 0.023$), thus the hypothesis is accepted.

The following table summarizes the results of the hypothesis testing regarding the direct influence in the structural model.

Table 8. Results of the Hypothesis Testing of Direct and Indirect Influences in the Structural Model

No	Path	Hypothesis		Conclusion
		H_0	H_1	
1	$X_1 \rightarrow Y$	Rejected	Accepted	There is a significant positive direct effect
2	$X_2 \rightarrow Y$	Accepted	Rejected	There is a positive direct effect which is not significant

3	$X_3 \rightarrow Y$	Accepted	Rejected	There is a positive direct effect which is not significant
4	$X_4 \rightarrow Y$	Rejected	Accepted	There is a significant positive direct effect
5	$X_1 \rightarrow X_3$	Accepted	Rejected	There is a positive direct effect which is not significant
6	$X_2 \rightarrow X_4$	Rejected	Accepted	There is a significant positive direct effect
7	$X_3 \rightarrow X_4$	Rejected	Rejected	There is a significant positive direct effect
8	$X_1 \rightarrow X_4 \rightarrow Y$	Rejected	Accepted	There is a positive indirect effect which is not significant
9	$X_2 \rightarrow X_4 \rightarrow Y$	Accepted	Rejected	There is a positive indirect effect which is not significant
10	$X_3 \rightarrow X_4 \rightarrow Y$	Accepted	Rejected	There is a significant positive indirect effect

Final Results of the SITOREM Analysis

In summary, the findings of the SITOREM analysis are presented in the table below:

Table 9. Final Results of the SITOREM Analysis

Teamwork Variable ($\beta y1 = 0.429$), Rank 1

Initial Indicator	Indicator After Expert Assessment	Indicator Value
Effective Communication	1st Involvement and Participation (21.16%)	3.76
Trust	2nd Empathy and Emotional Support (20.73%)	3.82
Empathy and Emotional Support	3rd Effective Communication (20.13%)	3.96
Involvement and Participation	4th Collectivism and Communality (19.81%)	4.09
Collectivism and Communality	5th Trust (18.19%)	4.07

Personality Variable ($\beta y2 = 0.079$), Rank 3

Initial Indicator	Indicator After Expert Assessment	Indicator Value
Friendliness	1st Friendliness (23.29%)	4.07
Empathy	2nd Politeness (20.67%)	3.78
Attention and Concern	3rd Effective Communication (19.98%)	4.09
Effective Communication	4th Empathy (18.70%)	4.06
Politeness	5th Attention and Concern (17.37%)	3.86

Trust Behavior Variable ($\beta y3 = 0.045$), Rank 4

Initial Indicator	Indicator After Expert Assessment	Indicator Value
Positive Thinking	1st Positive Thinking (18.60%)	3.86
Good Intention	2nd Good Intention (17.56%)	4.05
Honesty	3rd Honesty (17.21%)	4.04
Openness	4th Openness (17.08%)	3.78
Empathy	5th Integrity (16.03%)	4.05
Integrity	6th Empathy (13.53%)	3.89

Organizational Climate Variable ($\beta y3 = 0.363$), Rank 2

Initial Indicator	Indicator After Expert Assessment	Indicator Value
Communication	1st Communication (20.24%)	4.06
Leadership	2nd Leadership (19.05%)	4.04
Innovation	3rd Policy (17.86%)	3.78

Member Involvement	4th Member Involvement (17.08%)	3.88
Policy	5th Innovation (14.29%)	4.09
Reward	6th Reward (13.69%)	3.89
Teacher Creativity Variable		
Initial Indicator	Indicator After Expert Assessment	Indicator Value
Originality	1st Flexibility of Thinking (23.06%)	4.02
Flexibility of Thinking	2nd Originality (22.96%)	3.85
Elaboration	3rd Elaboration (20.22%)	3.90
Adaptability	4th Self-Organization and Perseverance (18.53%)	4.17
Self-Organization and Perseverance	5th Adaptability (15.26%)	3.84

Based on the SITOREM analysis, a series of optimal solutions can be formulated to improve teacher creativity. This approach prioritizes variables with the highest path coefficients as the primary focus for improvement, with an emphasis on indicators with average scores below 4.0. The improvement process is carried out systematically, prioritizing each variable based on the highest weight.

Direct Effect of Mutual Cooperation (Teamwork) on Teacher Creativity

Based on the path analysis, Mutual Cooperation (Teamwork) (X1) has a positive and highly significant direct effect on Teacher Creativity (Y) with a path coefficient of 0.453 ($T = 3.435$, $P = 0.001$), emphasizing the importance of the social environment in fostering individual creativity. In the context of early childhood education, a strong culture of teamwork acts as a catalyst for the emergence of innovative pedagogical ideas. This finding aligns with the research findings of Rais & Rubini (2022) and Yuan et al. (2019), which showed that effective collaboration between teachers can enhance pedagogical creativity through knowledge exchange and social support. Therefore, it can be concluded that mutual cooperation, as a form of teamwork, has a strong and significant direct influence on the creativity of early childhood teachers.

Direct Effect of Personality on Teacher Creativity

Based on the path analysis, Personality (X2) has a positive but insignificant direct influence on Teacher Creativity (Y) with a path coefficient of 0.086 ($T = 0.527$, $P = 0.599$). This finding aligns with the Person-Environment Fit theory proposed by De Cooman & Vleugels (2022), which states that the influence of personality on work outcomes is complex and often mediated by environmental factors. In early childhood education, this suggests that teachers' personality characteristics, such as openness and friendliness, do not directly determine their level of pedagogical creativity, but rather their interaction with environmental factors such as managerial support, resource availability, and a conducive organizational climate. These results support previous research by Navickienė et al. (2019) and Widodo (2021), which emphasized that the effect of personality on teacher creativity is more indirect and dependent on the socio-organizational context within the early childhood education environment.

Direct Effect of Trust Behavior on Teacher Creativity

Based on path analysis, Trust Behavior (X3) had an insignificant direct effect on Teacher Creativity (Y) ($\beta = 0.010$, $t = 0.082$, $p = 0.935$), but trust remains crucial in early childhood education. Mohammed & Kamalanabhan (2020) explain that interpersonal trust often functions as an antecedent variable that influences creativity through indirect mechanisms. These findings confirm that although trust does not directly influence early

childhood teacher creativity, its role as a foundation for creating conducive conditions for creativity remains crucial. Consequently, developing teacher creativity should integrate the building of interpersonal trust with strengthening a supportive organizational climate and providing adequate resources. Further research is recommended to explore more specific mediating mechanisms.

The Direct Effect of Organizational Climate on Teacher Creativity

Based on research findings, Organizational Climate (X4) has a positive and significant effect on Teacher Creativity (Y) with a path coefficient of 0.339 ($T = 2.725$, $P = 0.007$), supporting Amabile & Pratt's (2016) Organizational Creativity Climate Theory, which states that a supportive organizational environment acts as a catalyst for individual creativity. In early childhood education, open communication practices, management support, and team collaboration create optimal conditions for teachers to develop innovative pedagogical practices. This finding aligns with previous studies by Sokol et al. (2015) and Ahmad et al. (2023), which confirmed that organizational climate is a significant determinant of the development of creativity in early childhood teachers. Therefore, systematic efforts to create a conducive organizational climate through supportive policies, open communication structures, and a collaborative culture can have a significant impact on increasing pedagogical creativity.

The Direct Effect of Mutual Cooperation (Teamwork) on Organizational Climate

Based on the results of the path analysis, Mutual Cooperation (Teamwork) (X1) has a positive but insignificant effect on Organizational Climate (X4) with a path coefficient of 0.187 ($T = 1.831$, $P = 0.069$), in line with Resource Dependence Theory, which states that the effectiveness of teamwork in shaping organizational climate is highly dependent on the availability of supporting resources. Mutual cooperation practices only have a significant impact on organizational climate when supported by transformational leadership and adequate resource allocation (Gaviria-Rivera & López-Zapata, 2019). These findings suggest that teamwork alone is insufficient to foster a positive organizational climate without structural and leadership support, emphasizing the need for an integrated approach that combines mutual cooperation with organizational system strengthening. Furthermore, the P-value approaching significance opens the door to further research with a larger sample size or a more sensitive measurement model. The Direct Effect of Personality on Organizational Climate

Based on the path analysis, Personality (X2) has a positive and significant effect on Organizational Climate (X4) with a path coefficient of 0.253 ($T = 2.302$, $P = 0.023$), supporting the Person-Environment Fit Theory of Interactionism in Huang et al., (2025), which emphasizes that the match between individual characteristics and the work environment is a crucial factor in shaping organizational climate. In early childhood education (PAUD) schools, teachers with open and friendly personalities tend to create harmonious social dynamics, thus contributing to a positive organizational climate. Consistent with the findings of Ahmad et al., 2018, these results confirm that teacher personality characteristics are a key factor in shaping organizational climate, and strategies such as personality-based teacher selection and soft skills development through training can create a more conducive organizational environment for increased creativity and collaboration in PAUD.

The Direct Effect of Trust on Organizational Climate

Based on the path analysis, Trust (X3) has a positive and highly significant effect on Organizational Climate (X4) with a path coefficient of 0.453 ($T = 4.180$, $P = 0.000$),

supporting Blau's Social Exchange Theory in Wallenburg & Handfield (2022), which states that interpersonal trust forms social capital as the foundation for a positive organizational climate. In early childhood education (ECE) schools, trusting relationships between teachers, staff, and management are essential prerequisites for creating a collaborative and supportive work environment. Consistent with the findings of Agbejule et al., (2021) these results confirm that developing interpersonal trust is a key factor in establishing a conducive organizational climate. Therefore, proactive managerial policies and professional training programs for ECE teachers need to incorporate the development of trust-building skills as an integral part. **The Indirect Effect of Mutual Cooperation (Teamwork) on Teacher Creativity Through Organizational Climate**

Based on the results of the path analysis, the indirect effect of Mutual Cooperation (Teamwork) (X1) on Teacher Creativity (Y) through Organizational Climate (X4) was not statistically significant ($\beta=0.063$, $t=1.448$, $p=0.150$). Mutual cooperation practices have a more direct impact on teacher creativity without necessarily improving the organizational climate. This study found that teamwork in early childhood education settings tends to influence teacher creativity through direct knowledge exchange rather than through changes in organizational climate. This finding suggests that interventions should focus on strengthening direct collaborative practices among teachers, such as through lesson study or communities of practice, while organizational climate remains a significant independent factor influencing teacher creativity.

The Indirect Effect of Personality on Teacher Creativity Through Organizational Climate

Based on the results of the path analysis, the indirect effect of Personality (X2) on Teacher Creativity (Y) through Organizational Climate (X4) was not statistically significant ($\beta=0.086$, $t=1.759$, $p=0.081$), although it showed a positive trend. A positive teacher personality can create a more conducive organizational climate, but its effect on teacher creativity is not yet strong enough to be significant. Research indicates that teacher personality has a significant impact on pedagogical creativity only when supported by a reward system and professional autonomy. This finding aligns with the weak mediation effect of 8%, indicating a potential mediation mechanism that requires further investigation. Consequently, developing creativity in early childhood education teachers should combine strengthening personality traits with organizational support factors, and the p-value approaching significance suggests replication of the study with a larger sample size or more sensitive measurements.

The Indirect Effect of Trust on Teacher Creativity Through Organizational Climate

Based on the results of the path analysis, Trust (X3) had a positive and significant indirect effect on Teacher Creativity (Y) through Organizational Climate ($\beta=0.153$, $t=2.308$, $p=0.023$) with a partial mediation effect of 14.6%. This mechanism operates through the organizational climate, which provides teachers with a sense of psychological safety to experiment with innovative pedagogical approaches. Research by Lee et al. (2023) showed that interpersonal trust contributed to an 18.3% increase in teacher creativity through improvements in organizational climate, aligning with the findings of this study, which confirmed statistical significance and a meaningful mediation effect. Consequently, developing creativity in early childhood education teachers should combine strengthening social relationships with systemic improvements in the organizational climate to support pedagogical innovation, while also confirming the relevance of Social Exchange Theory in the context of early childhood education.

Discussion of Indicator Evaluation Results Using SITOREM to Optimize Teacher Creativity Improvement

Based on indicator evaluation using the SITOREM method, optimization of teacher creativity improvement focuses on improving weak indicators (scores <4.0) and developing strong indicators (scores ≥ 4.0), with priority given to indicators with the highest expert scores, as high scores reflect the urgency of improvement in enhancing teacher creativity. The following table presents optimal solutions for improving teacher creativity, including the priority order of indicators requiring improvement and those that should be maintained.

Table 10. Priority Order for Indicator Improvement

Priority Order of Indicators to Be Improved	Order of Indicators to Be Maintained or Developed
1st Involvement and Participation	1. Collectivism and Communality
2nd Empathy and Emotional Support	2. Trust
3rd Effective Communication	3. Communication
4th Policy	4. Leadership
5th Member Involvement	5. Innovation
6th Reward	6. Friendliness
7th Politeness	7. Effective Communication
8th Attention and Concern	8. Empathy
9th Positive Thinking	9. Good Intention
10th Openness	10. Honesty
11th Empathy	11. Integrity
12th Originality	12. Flexibility of Thinking
13th Elaboration	13. Self-Organization and Perseverance
14th Adaptability	

CONCLUSION

This study successfully developed a research constellation model to enhance the creativity of PAUD teachers in Tasikmalaya City through field exploration, with SEM analysis identifying effective strategies and SITOREM analysis outlining actionable steps to boost teacher creativity. The testing revealed prioritized indicators for improvement, highlighting that mutual cooperation (gotong royong) and organizational climate directly and positively influence teacher creativity, whereas mutual trust behavior and sapa (personality) have minimal direct effects. Indirectly, mutual trust behavior significantly affects creativity through the organizational climate, while teamwork and sapa remain less influential via this pathway. Future research could explore how to strengthen the indirect effects of teamwork and personality factors on teacher creativity, possibly by investigating additional mediating variables or contextual influences within early childhood education settings.

REFERENCES

- Agbejule, A., Rapo, J., & Saarikoski, L. (2021). Vertical and horizontal trust and team learning: the role of organizational climate. *International Journal of Managing Projects in Business*, 14(7), 1425-1443. <https://doi.org/10.1108/IJMPB-05-2020-0155>

- Ahmad, K. Z. B., Jasimuddin, S. M., & Kee, W. L. (2018). Organizational climate and job satisfaction: Do employees' personalities matter?. *Management Decision*, 56(2), 421-440. <https://doi.org/10.1108/MD-10-2016-0713>
- Ahmad, M., Suryadi, S., Matin, M., & Sugiarto, S. (2023). Organizational climate and quality of work-life in the creativity of teachers. *International Journal of Evaluation and Research in Education*, 12(2), 905-913. : <https://doi.org/10.11591/ijere.v12i2.22738>
- Amabile, T. M., & Pratt, M. G. (2016). The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in organizational behavior*, 36, 157-183. <https://doi.org/10.1016/j.riob.2016.10.001>
- Annisha, D. (2024). Integrasi penggunaan kearifan lokal (local wisdom) dalam proses pembelajaran pada konsep kurikulum merdeka belajar. *Jurnal Basicedu*, 8(3), 2108-2115.
- Arthur, J. (2021). *A Christian Education in the Virtues*. Routledge. <https://doi.org/10.4324/9781003141877>
- De Cooman, R., & Vleugels, W. (2022). Person–environment fit: theoretical perspectives, conceptualizations, and outcomes. 10.1093/acrefore/9780190224851.013.377
- Desianti, L., Hardhienata, S., & Setyaningsih, S. (2022). Strengthening teacher creativity models through empirical studies in high schools. *Journal of Industrial Engineering & Management Research*, 3(4), 148-169.
- Gaviria-Rivera, J. I., & López-Zapata, E. (2019). Transformational leadership, organizational climate and job satisfaction in work teams.
- Huang, Y., Lou, V. W., Zhang, W., Yang, G., Ke, X., Yang, F., ... & Lu, S. (2025). Person-environment fit of formal and informal caregivers for older adults: a scoping review. *BMC nursing*, 24(1), 1059
- Mohammed, N., & Kamalanabhan, T. J. (2020). Interpersonal trust and employee knowledge sharing behavior: Creative performance as the outcome. *VINE Journal of Information and Knowledge Management Systems*, 50(1), 94-116. <https://doi.org/10.1108/VJKMS-04-2019-0057>
- Navickienė, V., Sederevičiūtė-Pačiauskienė, Ž., Valantinaitė, I., & Žilinskaitė-Vytienė, V. (2019). The relationship between communication and education through the creative personality of the teacher. *Creativity studies*, 12(1), 49-60. <https://doi.org/10.3846/cs.2019.6472>
- Rais, S., & Rubini, B. (2022). Increasing Teacher Creativity through Strengthening Transformational Leadership, Teamwork, and Work Engagement. *Pegem Journal of Education and Instruction*, 12(1), 232-241. <https://doi.org/10.47750/pegegog.12.01.24>
- Rummar, M. (2022). Kearifan lokal dan penerapannya di sekolah. *Jurnal Syntax Transformation*, 3(12), 1580-1588.
- Sokol, A., Gozdek, A., Figurska, I., & Blaskova, M. (2015). Organizational climate of higher education institutions and its implications for the development of creativity. *Procedia-Social and Behavioral Sciences*, 182, 279-288. <https://doi.org/10.1016/j.sbspro.2015.04.767>
- Wallenburg, C. M., & Handfield, R. (2022). Social exchange theory. In *Handbook of theories for purchasing, supply chain and management research* (pp. 267-282). Edward Elgar Publishing. <https://doi.org/10.4337/9781839104503.00021>

- Widodo, W. (2021). Enhancing teachers' professional competence through grit, personality, and creativity. *Management Science Letters*, 11(1), 129-138. <https://doi.org/10.5267/j.msl.2020.8.022>
- Yuan, Y. H., Wu, M. H., Hu, M. L., & Lin, I. C. (2019). Teacher's encouragement on creativity, intrinsic motivation, and creativity: The mediating role of creative process engagement. *The Journal of Creative Behavior*, 53(3), 312-324. <https://doi.org/10.1002/jocb.181>



licensed under a

Creative Commons Attribution-ShareAlike 4.0 International License